Intranet Design Annual 2016

The Year's 10 Best Intranets

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The research for this report was done in 2016, but the majority of the advice may still be applicable today, because people and principles of good design change much more slowly than computer technology does. We sometimes make older report editions available to our audience at no cost, because they still provide interesting insights. Even though these reports discuss older designs, it's still worth remembering the lessons from mistakes made in the past. If you don't remember history, you'll be doomed to repeat it.

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REPORT AUTHORS

  

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Executive Summary

ORGANIZATIONS

Following are the organizations with the 10 best-designed intranets for 2016:

- **American Cancer Society** (US), a global nonprofit voluntary health organization fighting against cancer
- **Cadwalader, Wickersham & Taft LLP** (US), a financial services law firm
- **The Co-operators Group Limited** (Canada), a co-operative insurance and financial services organization
- **DORMA** (Germany), since September 2015 part of the newly formed dorma+kaba Group, whose 16,000 employees produce and market door technology systems and allied products around the globe
- **Enbridge Inc.** (Canada), a company that transports, generates, and distributes energy across North America
- **Intermountain Healthcare** (US), a not-for-profit health system with 22 hospitals and 185 clinics serving Utah and southeastern Idaho
- **NAV CANADA** (Canada), Canada's Air Navigation Service Provider (ANSP) that manages 12 million aircraft movements a year for 40,000 customers across 18 million square kilometers, making it the world's second largest ANSP by traffic volume
- **Repsol S.A.** (Spain), a private energy company providing service in more than 40 countries
- **Salini Impregilo SpA** (Italy), a global construction company specializing in complex infrastructure projects and operating in 50 countries
- **The Swedish Parliament** (Sweden), Sweden's primary representative forum, elected by the people in general elections

A TWO-TIME WINNER

This is the second win for Enbridge, which was recognized previously in the 2010 Intranet Design Annual. This repeat win demonstrates the company's ongoing commitment to continual intranet improvements.

NORTH AMERICAN COMMAND

Six of the 10 winners are from North America, with three from the US and three from Canada. Elsewhere, this year marks only the second year that an Italian company has graced our list.

WINNING INDUSTRIES: UTILITY AND CONSTRUCTION

In the early Design Annual years, the technology and finance industries had the most prominent showing. In more recent years, the utility industry has dominated, and it is now the most winning industry. This year, we have two winning utilities, as well as two winners from the construction industry.

Some of the decline in financial companies is no doubt a lingering effect of the finance crisis that caused these companies to reduce their investment in internal IT quality. Hopefully they'll come back, but it does take more than a couple of years to recover from a neglected intranet.

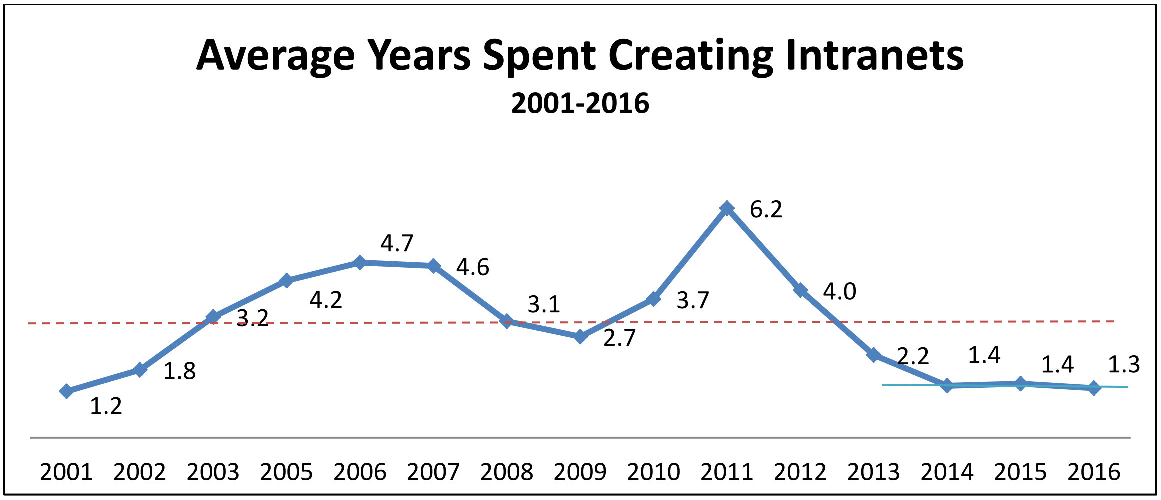
The shift from tech companies to utilities and good solid construction firms is more interesting and may indicate a *structural* change, as opposed to merely a temporary *cyclical* impact. In the early years, it was hard technical work to implement a good intranet design, and so tech companies naturally dominated, given the stronger programming chops of their staff. Today, you certainly still need good developers, but the main challenge is business analysis (finding out what content and features will actually move the needle in employee productivity), design, and user research. All of which can be found — these days — far from the geeky halls of Silicon Valley.

ITERATIVE INTRANET DEVELOPMENT

In contrast to the huge intranet overhauls of the past, many teams are now taking more iterative approaches to redesign. Some teams classify even a small iteration as a "redesign." While this is technically true, such iterations are considerably smaller releases than the intranet redesigns of the past.

Some teams are also working faster with those iterative approaches. Some use Agile or other rapid approaches to development, which can lower the time required to create an intranet. Over the past three years, several of our winning intranets have moved to these more nimble development approaches.

On average, this year's winning teams took 1.3 years (15.9 months) to create their sites. This continues the trend of the past three years, in which winning sites were created in less than 1.5 years on average.



Average Years Spent Creating Intranets: 2001–2016. Since 2001,[1] intranet teams have spent an average of 3.1 years (37 months) to create their winning designs. In the past three years, however, winning intranet teams have spent less than 1.5 years to build their winning sites, with this year's group averaging 1.3 years (16 months).

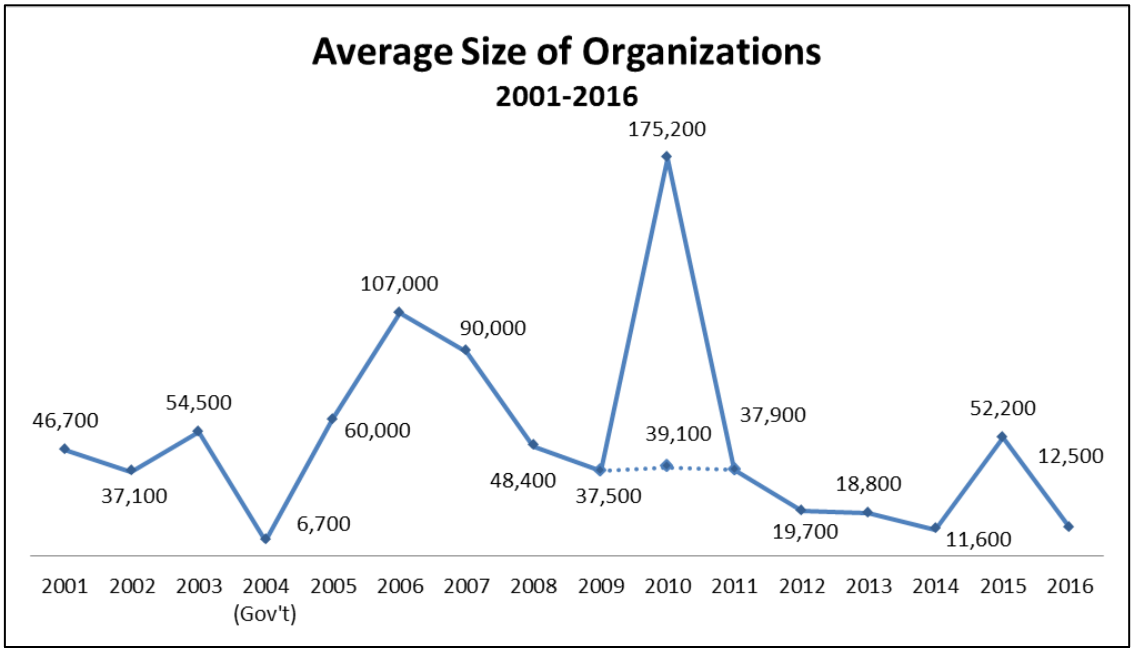
SMALLER AVERAGE ORGANIZATION SIZE

This year, the average size of the winning organizations is 12,500 employees, among the smallest averages we've had since the start of the Design Annual.

Six of the 10 winners this year support fewer than 10,000 employees, from 950 at Cadwalader, Wickersham & Taft to 7,000 at both dorma+kaba and The Co-operators. Also in this group, the Salini Impregilo site supports 2,800 of the organization's 34,000 employees. Enbridge, Intermountain Healthcare, and Repsol all support more than 10,000 employees (11,500, 35,000, and 17,000, respectively).

Bigger companies usually have more resources and definitely see a bigger dollar sign in the return on their intranet investment, simply because the improvement is multiplied by the number of users. But as we see again this year, companies with three-digit employee numbers are fully capable of doing good design and picking the right features to boost the productivity of their staff, especially since these employees' work is usually more focused and thus can benefit more from making exactly the right features in exactly the right way.

[1] In 2004 the special Design Annual included only government agencies, so these numbers are not included in this chart.

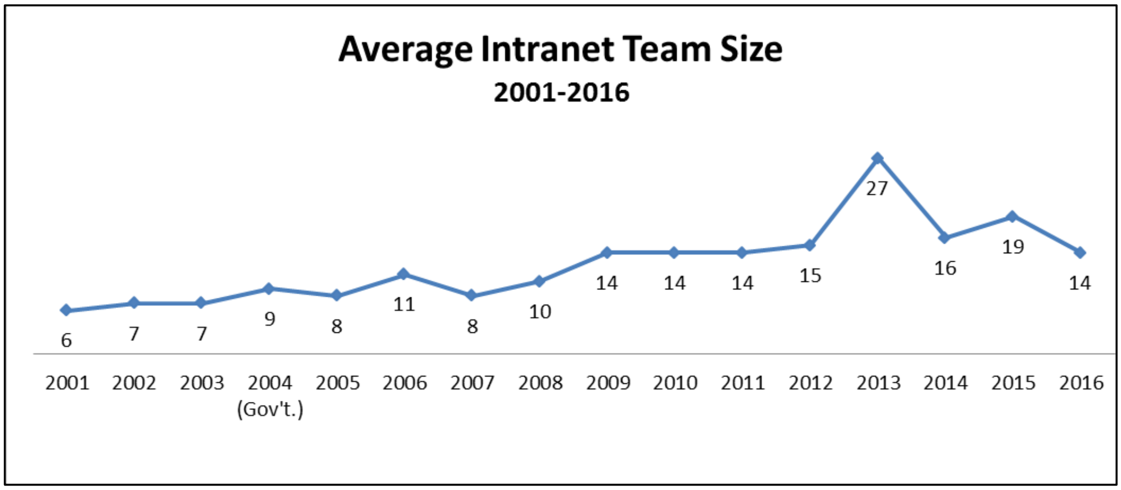


Average Size of Organizations: 2001–2016. The winning sites in 2016 supported an average of 12,500 employees, ranging from 950 at Cadwalader, Wickersham & Taft to 35,000 at Intermountain Healthcare. This year's median was 7,150 employees. The high average in 2010 was due to winning organization Walmart's size, with an intranet supporting 1.4 million store associates. The average for that year excluding Walmart was 39,100.

SLIGHTLY SMALLER TEAM SIZE

The average intranet team size is down slightly this year compared to the last four years; but is still equal to the average team size since 2001. The average winning team had 14 people; the smallest team was Repsol with a team of four (supporting 17,000 employees), while the largest was dorma+kaba with a team of 24 (supporting 7,500 employees).

Each team provides its own count of team size, which can include employees working full- or part-time on the site. Also, teams look to outside agencies to help with all aspects of intranet creation, and some teams don't count these outside consultants as part of the core team. Both of these factors might account for the smaller numbers, as might the smaller total organization sizes (team size often reflects organization size). In any case, these team-size numbers represent the team at the time of a redesign project, and might not reflect the team size after the main project is complete.



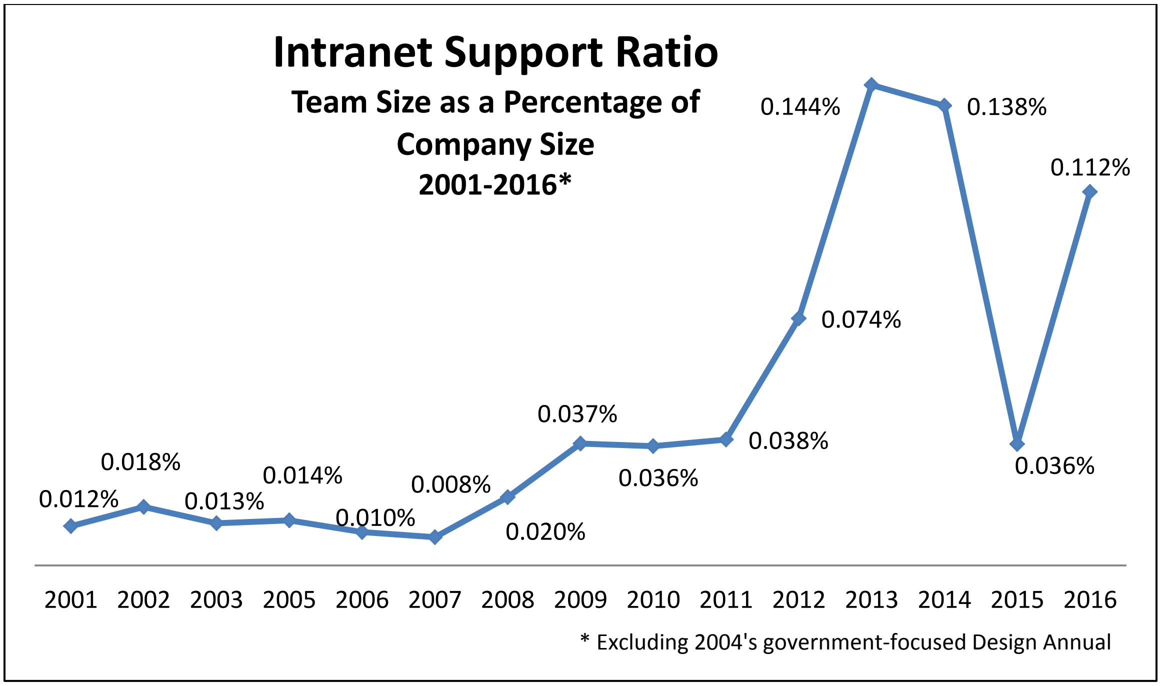
Average Intranet Team Size: 2001–2016. Average team size was 14 employees per organization.

Low team-size numbers can be a cause for concern: they could indicate less commitment to the intranet at a management level. This would be worrisome; if intranets are to remain well-designed, usable, and effective tools, the core intranet team size must not drop to only a few employees. Governance, maintenance, and iterative improvement are essential to an intranet's success, and thus the intranet team must be staffed appropriately.

INTRANET SUPPORT RATIO: TEAM SIZE RELATIVE TO SUPPORTED EMPLOYEES

A team size of 14 at a 100-person organization is quite different than a team of 14 at a 100,000-person organization. Because of this, we also look at the "intranet support ratio," that is the ratio between the intranet-team size and the supported organization size. This year's ratio is relatively large: as a percentage of company size, this year's teams comprised 0.112% of company size. So, for every 1,000 employees, one worked on the intranet team this year.

This year's intranet support ration is close to that of 2014, when the average company size was 11,600 employees (versus this year's 12,500 employees).



Intranet Support Ratios: 2001–2015. This year’s winning intranet teams comprised 0.112% of the organizations they support. This year’s figures support the general trend of larger ratios, but small size of the winning organizations sent the percentage skyrocketing: it’s almost twice as big as most previous years.

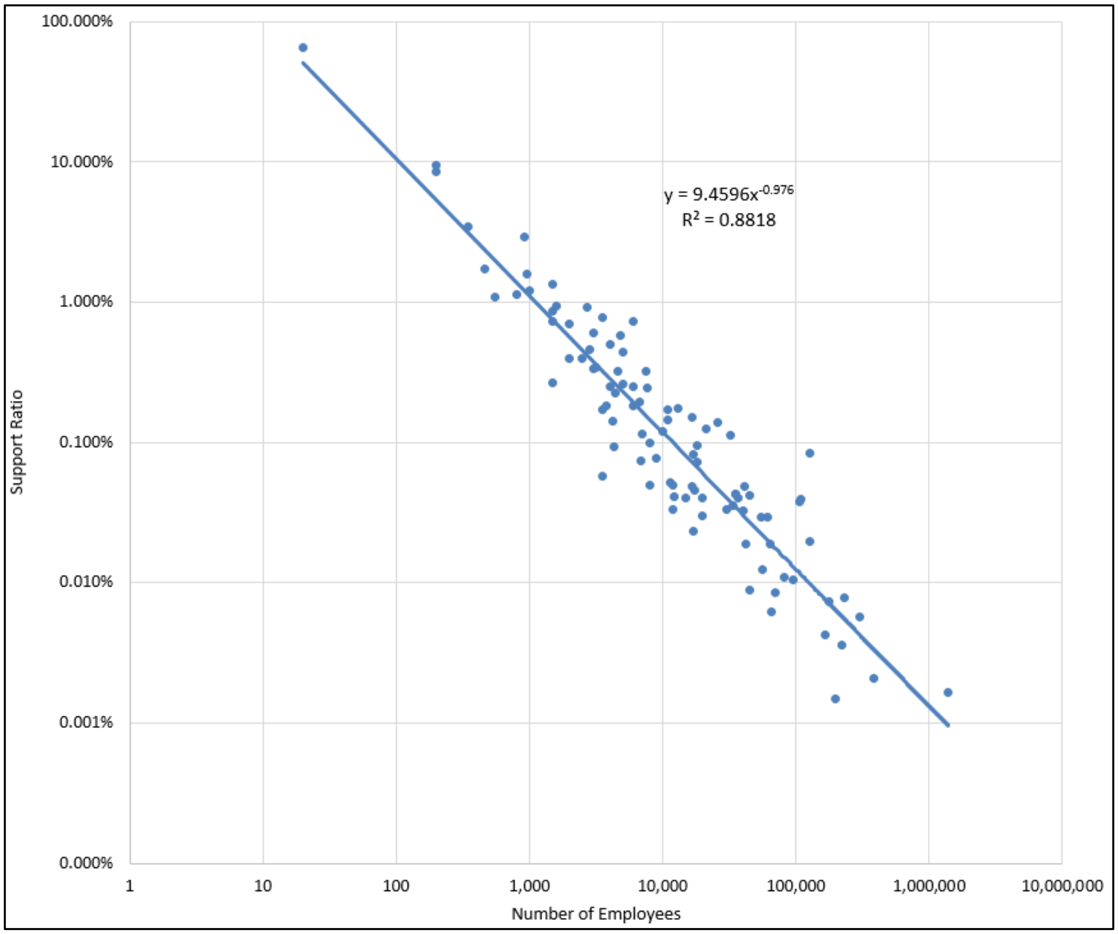
Based on this figure, a company of 200,000 would staff an intranet team with 224 people, which is unrealistic. This year’s relatively high percentage is due to the combination of smaller companies and larger teams.

So, what is a realistic percentage, taking company size into consideration? To answer this question, we compared team size to organization size over the past seven years of our Intranet Design Annual and found that the best of the best intranets have this in common: a similar "intranet support ratio". This **formula can help you determine the best intranet team size** as it relates to the number of employees the intranet is meant to support. The intranet support ratio formula:

$$\textbf{intranet support ratio} = 9.4596 * \textbf{employee\_number}^{-0.976}$$

That is, you take the number of employees the intranet supports and raise it to the power of -0.976. Multiply the resulting number by 9.4596 to give the expected intranet support ratio.

This equation explains 88% of the variability in intranet support ratios. This effect is visible in the chart below. According to Jakob Nielsen, "It is very rare to get this strong a mathematical model of anything in the UX field. So it's a good finding."



The "intranet support ratio" equation explains 88% of the variability in intranet support ratios. This effect is visible in the chart, in which the numbers are plotted on a double-logarithmic scale.

HIRING EXTERNAL HELP

All 10 of this year's winning organizations looked to outside agencies and consultants to lend expertise to the intranet redesign project. Organizations brought in an average of two outside agencies to assist.

This year's winning organizations utilized agencies and consultants in all stages of the project:

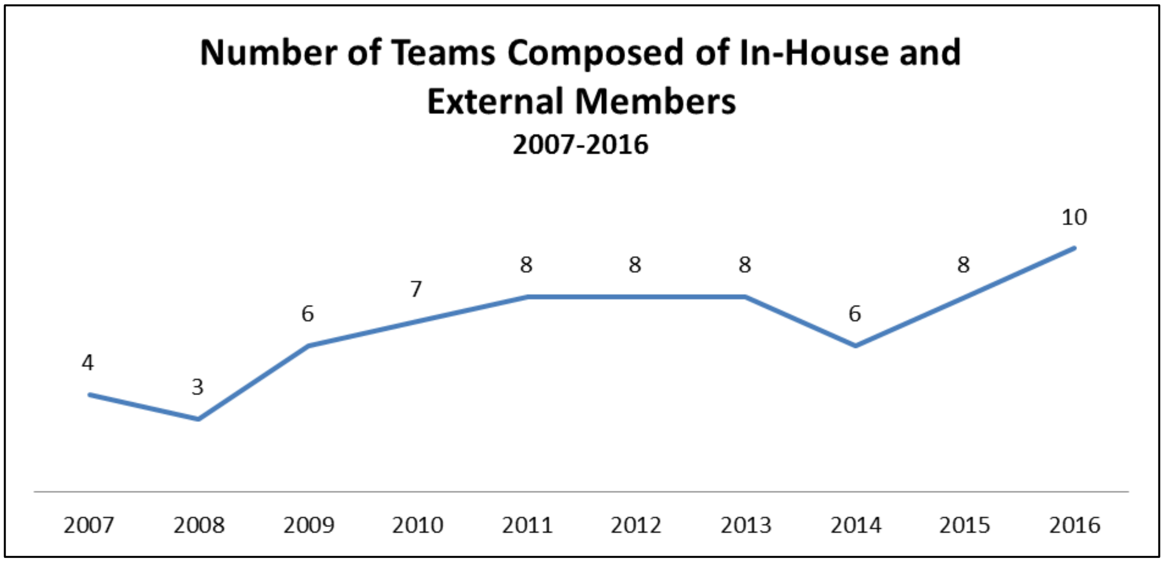
- Audience targeting
- Benchmarking
- Branding
- Concept creation and review
- Content migration
- Development

- Documentation
- Functional specifications
- Information architecture
- Interviews
- Needs analysis
- Process reviews
- Prototyping
- Quality assurance
- SharePoint implementation
- Support
- Taxonomy
- Training
- Usability testing
- Video creation
- Visual design
- Wireframing

The extensive external help may be another possible reason for this year's lower team-size numbers.

Working with consultants can be inspirational, contribute varied expertise and perspectives, and give the team a needed jolt of excitement. The costs of hiring a consultant may be lower than hiring a full-time employee; it also gives teams specific expertise when they need it, without requiring the organization to commit to keeping a person on staff beyond that point.

However, the fact that every winning team needed outside help to create a great intranet does give us pause. Is this is a commentary about something intranet technologies being so difficult to deal with that teams require outside help to use them effectively?



Number of Teams Composed of In-House and External Members (Out of 10 Winners Each Year): 2007–2016. All of this year's winning teams were made up of internal and external resources.

More details about the collaboration between in-house teams and outside firms can be found in the individual profiles later in our report.

CONCLUSION

Intranet teams continue to improve at creating award-winning designs. Companies recognize the importance of a good, usable intranet; as a result, a higher percentage of the company size is involved in the intranet team; moreover, organizations regularly, effectively employ consultants to assist with many tasks. And organizations, large or small, and from just about any industry produce award-winning intranets.

Overview of the Winners

THE 10 WINNERS *IN ALPHABETICAL ORDER*	
American Cancer Society (Nonprofit; US)	The American Cancer Society's team worked to consolidate a set of sites built on outdated technology; the goal was to increase user engagement and encourage collaboration. The resulting site has a strong structure, an inclusive resource library, and numerous opportunities for employees and volunteers alike to learn, share, and communicate.
Cadwalader, Wickersham & Taft LLP (Law; US)	The crisp design of this law firm's intranet reinforces its goals: to provide easy access to information needed for daily work, enhance connections among employees, and, ultimately, to help the firm provide the best possible service to clients. A daily dashboard aimed at partners, a robust search tool that combs through internal records, and an informative Firm directory form the core of this clean, efficient intranet.
The Co-operators Group Limited (Insurance; Canada)	Communication, collaboration, recognition, and community are underlying themes of the *Source* intranet. Source houses and promotes extensive, valuable information about company news and performance, employee achievements, and executive views. Although some organizations hide this type of information, Source lets employees see this top news quickly and jump right into the tasks at hand.
dorma+kaba (Construction; Germany)	In just 60 days, the DORMA intranet team created a global, social intranet in advance of two large company events. The impending events combined with the introduction of social tools offered a perfect set up for intranet success: the events acted as natural drivers for both social content creation and conversation on the site. Strong management support further ensured that this global company's shift to a social intranet was notably smooth and well received.
Enbridge Inc. (Energy; Canada)	The transition to SharePoint 2013 offered Enbridge the opportunity to revisit the structure and visual design of its intranet. Armed with user research, the team set out to recreate the intranet as a central place to connect and engage, using audience targeting to streamline communications and get the right information to the right people.
Intermountain Healthcare (Healthcare; US)	Intermountain Healthcare created an elegant, responsive intranet that not only informs employees, it also capitalizes on their business know-how and works to keep them healthy and happy. In addition, the intranet's gamification features give new meaning to the term "healthy competition."
NAV CANADA (Aerospace; Canada)	NAV CANADA's intranet, called *Central*, is both functional and beautiful. The look and feel is calm and simple, gently reminding employees about the business, while increasing their confidence and empowering them to focus on the right things. An emphasis on help and guidance makes collaboration possible and successful.

Repsol S.A. (Energy; Spain)	Repsolnet is commendable for its far-reaching inclusiveness: it accommodates employees in 40 countries who do a wide variety of jobs in offices as well as in the field. It also accommodates people with disabilities, and people with slow internet connections. No matter who you are or where you are, if you work for Repsol, you are guaranteed to benefit from the intranet.
Salini Impregilo SpA (Industry; Italy)	The Salini Impregilo Group was born from a merger between Salini and Impregilo that aimed to create an international champion in the construction sector. Unifying corporate cultures and communication is a persistent theme of this design. The intranet features sundry news and social features implemented in a solid infrastructure with unique tools. It relies on a close-knit, highly professional team and on employee advocates who focus on creating a user-friendly intranet.
The Swedish Parliament (Government; Sweden)	When building an intranet for a governmental organization, it is essential to understand both institutional processes and user needs. The Swedish Parliament's intranet team spent time upfront learning about roles, needs, and processes in order to undertake a user-focused development plan. The result is a modern responsive design with a focus on clarity and efficiency.

COMPANIES AT A GLANCE				
Company	**Headquarters**	**Industry**	**# of Employees**	**Intranet Team Size**
American Cancer Society	US	Nonprofit	6,000	22 (8 internal, 14 external)
Cadwalader, Wickersham & Taft LLP	US	Law	950	15
The Co-operators Group Limited	Canada	Canada	4,300 employees and 2,500 licensed insurance representatives	5
dorma+kaba	Germany	Construction	7,500	24
Enbridge Inc.	Canada	Energy	11,500	6
Intermountain Healthcare	US	Healthcare	35,000	13
NAV CANADA	Canada	Aerospace	4,650	15
Repsol S.A.	Spain	Energy	27,000	4
Salini Impregilo SpA	Italy	Construction	34,000	12 (5 internal, 7 external)
The Swedish Parliament[2]	Sweden	Government	,500	20

[2] The Swedish Parliament does not have employees (as in a company) but 1,500 people use the organization's intranet.

INTRANETS AT A GLANCE				
Company	**Intranet Platform**	**Language(s)**	**Mobile Approach**	**Agile Development**
American Cancer Society	SharePoint 2013	English	Responsive web design	Yes
Cadwalader, Wickersham & Taft LLP	SharePoint 2013	English	N/A	Yes
The Co-operators Group Limited	SharePoint 2013	French, English	N/A	Yes
dorma+kaba	Office 365, Azure, SharePoint Online, Yammer	English, German, French	Responsive web design as well as native mobile app for iOS, Android, and Windows Phone	No
Enbridge Inc.	SharePoint 2013	English	N/A	Yes
Intermountain Healthcare	SharePoint 2013	English	Responsive website and mobile app	Yes
NAV CANADA	SharePoint 2013	English, French	HTML5 mobile web app	Hybrid
Repsol S.A.	SDL Tridion 11, .Net Framework v4.5.2 (Asp.Net MVC 4), SQLServer	English, Spanish, Portuguese	Responsive web design (in progress)	No
Salini Impregilo SpA	SharePoint 2013	Italian, English	Responsive web design	No
The Swedish Parliament	EPiServer 7 CMS, Apache Solr, SharePoint 2013	Swedish	Responsive web design	Yes (scrum)

Common Themes Among the Winners

Great intranet teams often have comparable goals and share similar ways of working and thinking. Here, we summarize a few of the common themes we saw this year.

RESPONSIVE DESIGN

Today's best intranets focus on creating a productive, pleasant experience for employees, whether they access the intranet on a huge monitor in a comfortable office or on a smartphone in the driver's seat of a cramped truck. The best designers are now savvy enough to know that a single responsive code base does not necessarily mean a single user experience.

American Cancer Society, dorma+kaba, Intermountain Healthcare, Salini Impregilo, and Swedish Parliament all offer responsive sites, but their approaches to creating them were diverse. Although some organizations offered a similar content flow regardless of the device, others created a boxy design that shifts depending on specific content priorities and screen sizes. Still others looked at each screen and arranged the user experience accordingly.

For example, Swedish Parliament focused on details on every screen, aimed to create fewer pages with more information, and used in-page navigation to make longer pages more usable.

NAV CANADA didn't create a responsive design, but it does offer a helpful mobile experience. Likewise, Repsol created light versions of its site for employees who are accessing it from the field with slow internet connections; the company is in the process of creating a responsive site now.

UNDERSTANDING EMPLOYEES

The only way to make a great design is to understand what users do and need. This year's winners branched out, applying various user research methods to learn about their employees. This, in turn, informed their designs and ultimately filled usability voids and exceeded user expectations.

Although they still use self-reported information from users, savvy designers know they need a richer toolbox that goes beyond the occasional survey. The American Cancer Society team used analytics, interviews, and surveys to round out the user information collected. Given this research, the team's designers were able to make great strides in menu organization, creating a task-based information architecture (IA) to replace the old department-based one.

The Co-operators team put its initial designs through IA usability testing early on, watching as people worked with the categories and labels and then refining the designs accordingly.

The Cadwalader, Wickersham & Taft team used eight personas and conducted in-depth persona workshops to lead design based on user types.

Enbridge started with a user experience assessment and analytics review, then moved on to stakeholder interviews and visioning exercises. Next, team members conducted thorough "Listening Labs," in which they traveled to major office locations and set up remote sessions via WebEx at other offices to observe employees as they performed key tasks.

The Swedish Parliament team made an effort to involve all user types in the development process — a particularly impressive approach given that its audience includes members of Parliament. User experience design and user research wasn't an afterthought, but rather a major component of and driving force behind the redesign effort. Team members took the time to understand the organization and its vocabulary, routines, concepts, and traditions as well as possible before even crafting their interview guides. They were thus able to create efficient guides that allowed them to make the most of the interviews.

Even dorma+kaba, which had only a 60-day turnaround time redesign still made efforts to include users outside of its headquarters in the design process.

NO ONE-SIZE-FITS-ALL DEVELOPMENT APPROACH

Rather than simply following the latest craze, intranet teams are choosing development methods and processes — as well as approaches to planning and scheduling — that work for them.

Although Agile can be very effective (as in the case of American Cancer Society) only some of this year's winners used an Agile process. This fact reflects decision-making maturity on the part of the winning intranet teams. Cadwalader, Wickersham & Taft, for example, used a lean development process for the first time with this project and also used new technologies. The team's goal was to create the minimal viable product (MVP), which let team members work iteratively and make changes and enhancements based on data from users.

CONTENT CLEAN-UP

Migration alone is not an effective content strategy. Today's best intranet designers are finding ways to collect helpful content and retire content that is outdated or unused.

Faced with 7,000 pages, the Enbridge team derived a new site structure to fit the desired content and make it findable. The team also tackled the challenge of facilitating custom migrations for content areas such as events, article comments, and classifieds.

NAV CANADA was able to reduce legacy portal content by 70% and streamline its content layout and navigation.

American Cancer Society reduced content by starting with an in-depth look at the content; it then used feedback, surveys, and analytics to determine which content was worthwhile. The team eliminated outdated and duplicate information and categorized the remaining content by audience. Additionally, the team had a dedicated project manager for culling content and motivating content providers to do the same. The effort reduced the costs of servers needed to house the content by 62%.

The Swedish Parliament planned a staged rollout and, as time passed, realized that some content slated for later migration wasn't necessary after all.

AUTHOR SUPPORT AND CONTENT WORKFLOWS

An engaging intranet depends on its content, which in turn depends on its content authors. This year's winners were creative in nurturing this important group of people and the content it provides.

Organizations such as American Cancer Society and Repsol use tags for content, while user-generated favorites help make content easy to find.

Enbridge offers online training videos for its content providers. Using modules about specific processes let team members update a single set of instructions as processes change, rather than having to recreate the full training. This new system has improved content providers' job satisfaction and helped eliminate support calls related to content publishing.

dorma+kaba recognizes employees who create or regularly comment on its site's content. Recognizing these people indicates to others in the organization and around the world that dorma+kaba values contributions to the intranet.

dorma+kaba also refers to its content creators as "Communication Heroes," and makes it easy for them to share their best practices and lessons learned.

Likewise, the Salini Impregilo team engaged a group of key users — including content owners, content managers, and beta testers — as "Intranet Ambassadors."

Intermountain Healthcare achieved its content-related goal to re-engage its site owners by providing easy-to-use tools for content management.

The Co-operators intranet team facilitates varied, inclusive, and interesting news content on its site by encouraging employees to submit corporate news.

PERSONALIZATION AND CUSTOMIZATION

Targeting content based on user role is still a great way to declutter the design, protect content, and direct people to the information and tools they need.

Intermountain Healthcare's intranet offers individual sections targeted at physicians, nurses, pharmacists, and knowledge workers.

Enbridge targets content by location — city, country, and region — as well as by role. All content is thus targeted to specific audiences, ensuring that employees are receiving the information that is most relevant to them and allowing local groups to use the site, rather than email, to communicate.

Repsol offers customizable sections and links that let employees work in their own way. Employees can edit the links and list of tools, as well as the location of these elements, in their *My Desktop* section.

MULTI-LANGUAGE SUPPORT

Multi-language support makes it possible for all employees to easily understand the intranet's information. Offering content in multiple languages can also help employees feel included and valued. That said, decisions about whether to translate content are often made at an upper-management level, and the time and resources available for multi-language support can vary greatly.

The Cadwalader, Wickersham & Taft intranet is translated into multiple languages, including Chinese characters, making it inclusive for users around the world.

Because The Co-operators includes both English and French speakers among its employees, the intranet is offered in both languages and users can switch back and forth easily. Similarly, Salini Impregilo’s site is in Italian and English.

At dorma+kaba, essential information is carefully translated; the site also offers an option for automatic translation via Bing of all site content into 12 languages to give people a general sense of the site information.

A MERGER

Mergers produce great intranets, mainly because the intranet teams are given a clear goal and resources, and then are usually left alone to do their work. Also, having two or more intranet teams working together can be a united, unbeatable force.

Each year, we typically see at least one great intranet of this type. Salini Impregilo Group was this year’s representative, resulting from the merger of Salini and Impregilo. The new intranet team was asked to help integrate the two organizations and their employees, which are located in 50 countries. A combination of messages from management, news, and social and project information helped the team achieve this goal.

Feature Trends

Although every feature won't work well at every organization, feature trends from the year's greatest intranets can inspire your intranet redesign.

HELP

After years of being unhelpful, online help went out of fashion. This year, however, we saw a resurgence of *Help* that *is* helpful, but not actually necessary.

Repsol offers tutorials that explain new intranet features, increasing the likelihood that employees will discover, find, and use them appropriately.

At Intermountain Healthcare, employees who need a little assistance can refer to the *Help* section in the right rail. Similarly, The Co-operators team provides thorough, wide-ranging guidance about how to make the most of its intranet.

NAV CANADA helps users by offering instructions about processes, such as how to create a collaboration site. Such guidance and suggestions can help employees be more productive and confident as they take on new tasks.

SIMPLE, CLEAN DESIGN

The "flat and boxy" statement designs prevalent in years past are much less pronounced this year. Most of the designs, however, continue to boast a simple aesthetic.

Some designs, such as those from Enbridge, Repsol, and Cadwalader, Wickersham & Taft, use generous white space for a calming effect.

dorma+kaba and Salini Impregilo use a grey palette with touches of red to achieve an elegant effect with small splashes of color for excitement.

Intermountain Healthcare, NAV CANADA, Swedish Parliament, and (to a lesser degree) American Cancer Society all use rectangles for a boxy, easy-to-scan design.

BETTER PHOTOS

Whether it indicates a strong commitment to photography, more people sharing photos, or simply higher-quality phone cameras today — the photographs on the winning intranets are quite engaging. Photos typically relate strongly to the material they accompany and often show employees doing their work.

For example, the Enbridge site shows an employee evaluating a particular job site, dorma+kaba shows two employees joking around, and Swedish Parliament features a member giving a speech. Swedish Parliament also offers an oldie-but-goodie feature: the "Picture of the Week" in the top right corner of the homepage. In a modern twist, users can "flip" the photo over to reveal the caption and additional information about the picture.

VIDEO

Video has come a long way on intranets, turning into a useful tool that offers exciting content. As on the Web, rules for intranet videos have largely gone out the window.

Videos no longer need to be expensive and highly produced. In fact, many people welcome the simplicity and folksiness of more realistic videos.

Increasingly, organizations are offering videos related to intranet articles. To denote a video, American Cancer Society shows an image with a play button in the middle. At dorma+kaba, the homepage highlights the site's latest videos with an image and a brief description.

Similarly, Enbridge features a video on the homepage. The video content is indicated with a play arrow over the representative image, together with the title, date, and brief summary of the content. Video content is hosted by a third-party service, but appears embedded in the site.

Salini Impregilo offers a video box in the right rail. A clear image and two simple lines of text help employees quickly determine whether or not the video content interests them.

SEARCH EVOLUTION

Intranet search is a lion that the best intranets tame. The evolution of search apparent on this year's winning sites is impressive. Enbridge asks users for feedback about the search right in the UI and collects additional feedback from content owners, site owners, and business units. The team then uses the information to improve search — such as by adjusting keywords and adding metadata. Team members also set certain results' rankings temporarily and highlight them in best bets to elevate them in the search engine.

To enhance its intranet search, Cadwalader, Wickersham & Taft consolidated data sources to produce a single point of entry to knowledge resources.

Salini Impregilo's search, which appears on every page, allows employees to search the entire intranet for news, people, projects, and documents.

CAROUSELS AND HEROES

Although the carousel is still a prominent feature on winning intranets, the hero is making a comeback. Some organizations, such as NAV CANADA and Repsol, still opt for multiple images and statements in one area, while others, such as Intermountain Healthcare and Salini Impregilo, prefer one hero image to make the desired statement.

BUSINESS COMMUNICATION

Businesses have learned that the intranet is the perfect place to communicate their goals and status to all employees. This helps employees realize how the organization is doing and motivates them to achieve organizational goals.

The Co-operators communicates company performance figures, mission information, and background about leaders. Also, its high-level managers take turns blogging about topics that are important to the organization.

Enbridge shares important corporate information on the homepage, where the CEO also has a dedicated section for writing regular messages to the company's employees.

FAT FOOTERS

Large footers at the bottom of pages became popular a few years ago and remain common today. Employees often know that the information they're seeking is on the intranet, but they can't always find it. Providing organized links at the bottom of pages gives them one more chance to locate what they need. The content in these footers can be arranged in many different ways: some repeat the global navigation, others suggest related content, while still others present popular links.

On the NAV CANADA intranet, the wide footer navigation repeats the global navigation topics and offers a list of the megamenu links.

The Enbridge footer includes links to the public sites of Enbridge companies and information for contacting the Enterprise Service Desk. It also lists Ethics and Conduct information, along with a reminder: "Let's work together to maintain a respectful workplace."

American Cancer Society's footer links to additional content, including *About Us*, *Society Sites*, *Get Involved*, as well as site feedback and terms of use; it also connects users to the organization's Facebook, Twitter, YouTube, LinkedIn, and Yammer accounts via logo-based links.

Repsol's footer has links to the most frequent searches, popular content, common Help Desk requests, and popular groups. Users can also view a condensed version of the site and change the language in which they view the intranet.

SIDE GLOBAL NAVIGATION

Because megamenus don't work well on a phone, responsive site designers are hiding the megamenus on the phone UI and instead offering global navigation down the side of the site. The Swedish Parliament and Cadwalader, Wickersham & Taft are among the winning organizations that followed this pattern.

TARGETED SOCIAL

A great trend from past years continues this year: presenting social tools in an understandable, targeted way. Gone are the days of displaying a wall feed on the homepage or in personal profiles with no additional description or context. Great intranets are choosing particular topics and themes and using social features to encourage further communication about them.

Salini Impregilo has four major social sections with very clear content types; this helps users understand what is acceptable. These include: employee selfies, a discussion forum, a corporate vocabulary wiki, and contests to stimulate creativity. The company's intranet also displays the names and photos of employees who participate the most in the social feed.

dorma+kaba's CEO promotes the social features, leading employees by example and playing a big role in the social features' success. In addition, two major company events occurred near the features' launch, which provided a source of content, increased interest, and natural momentum for success.

The Cadwalader, Wickersham & Taft intranet lists recent hires and employee anniversaries on the homepage. Such seemingly simple features can go a long way toward building a sense of community and inclusiveness in an organization.

The Co-operators offers a variety of social features, including the weekly *Five minutes with…* (an employee profiles feature), polls, achievements, *Popular Links*, and the ability for users to submit news. Also, in the site's executive blogs, senior leaders share their knowledge and opinions and ask employees to do the same.

The *Trending Now* section on the American Cancer Society intranet summarizes the site resources, search terms, and the site pages that are receiving the most traffic. This section is a simple and automated way to keep users informed of the site's most popular items.

Enbridge employees can easily access the company's public information on social sites — including Twitter, Facebook, LinkedIn, and YouTube — via links in the middle of the homepage. This section also includes a link to the @enbridge blog. Providing quick access to external sites raises employee awareness about information that Enbridge is sharing with the public and about the conversations occurring on social media sites.

Best Practices for the Intranet Design Process

Although some design elements come into vogue and flourish while others fall out of favor, certain design processes remain evergreen as best practices. These processes are not new, yet they are consistently effective components of the intranet design process.

For the past 15 years, we have seen intranet design patterns across case studies of award-winning intranets, as well as in our intranet research work for clients and our other NN/g reports. Specific steps exist to create intranets that meet user needs. Screenshots and features might inspire you, and case studies might educate and inform, but without a good design process, it is difficult to create an outstanding intranet.

Here we offer a few of the most important recommendations for designing a usable intranet.

CONSIDER INCREMENTAL FEATURE ADDITIONS

Is your team equipped to tackle a big intranet project all at once? Or would implementing a few parts gradually be more feasible? Whether using Agile or some other development process, you might find that doing a little at a time is more manageable. Implementing a few features at a time also shows progress. Still, you must consider your users. Will they deal better with a new, cohesive design? Will doing the design is stages confuse them and result in a Frankensteinian user experience?

If you do choose to employ an iterative development approach, ensure that your UX designers are focused in three directions:

- *toward the future*, on the designs yet to come;
- *in the present*, on the designs you are currently implementing; and
- *in the past*, on previously implemented designs.

The objective? To ensure a cohesive look and feel throughout the intranet, without disrupting what users already know.

USE SOCIAL TO LEARN

Everyone knows that social features help employees to help each other. But not all organizations are using social features to *learn*. Monitoring social participation can help your organization learn about the needs, feelings, and ideas of its employees.

Take advantage of social information by analyzing it for more than what it can teach you about intranet design. Use it to improve the organization and the satisfaction of employees, too.

PLAN FOR MOBILE FROM THE START

Make decisions about optimizing for mobile access from the start, including how you will do it and which devices you will target. Teams today often choose a responsive approach to accommodate all display sizes, rather than pigeonholing users to a particular device. Regardless, ensure that you plan, prioritize, and test features and content throughout the design process so the user experience is optimized for all of your targeted devices.

When you do usability tests, ensure you test the mobile experience, too, not just the desktop. Even with a responsive design and one codebase, the user experience is different on mobile devices, and you should test those screens separately.

WATCH EMPLOYEES WORK

One of the great benefits of working on an intranet is that your users are all around you. They're the people you pass in the hallways, the employees sitting next to you in the cafeteria, and the staff members who park next to you in the garage. Use these interactions to your advantage and ask to watch how your colleagues work. Observe how they naturally use (or don't use) the intranet, and where design opportunities exist for making it a more useful part of their day-to-day tasks. Although they are your colleagues, people have different organizational roles that entail different intranet needs and require access to different types of information.

And what about the people in distant locations? Use online conferencing tools to run moderated remote tests, and remote testing tools to run unmoderated research sessions. Technology today makes it cheap and easy to collect even empirical research from colleagues around the world.

GET YOUR ANALYTICS ON

Set goals for the types of analytics you want to capture on the intranet, and then capture that data *before* the new project begins. You can then compare it to data captured once the redesign is complete. Keep up with analytics; they are powerful numbers and can support (or disprove) the hypotheses you derive from behavioral user research.

CONDUCT USABILITY RESEARCH

Remember: you don't need a complete, finished design to garner useful usability feedback. In fact, it's better to get early feedback on incomplete designs. Test with wireframes, prototypes, and even paper mockups. Or, if you want to introduce design elements similar to those you see on a particular website, use that website to test the features. You can watch people using any current system, even if it's not an intranet, to determine which features or elements are well designed.

Even the busiest development teams, or those with the craziest deadlines, should take time to watch people attempt basic tasks using the design. It doesn't take long to do a quick test. We encourage design teams to get a group of designers and developers together — even for just 20 minutes — to review a site's design and discuss what happened in testing, and then identify, discuss, and agree on the top usability issues.

SUPPORT THE LAUNCH OF A NEW INTRANET

Whether you do a large redesign or change elements incrementally, it's important to involve people from throughout the organization in the design, prelaunch, and post-launch activities. Following are some tips to create a good intranet design process:

- Include key players from around the organization in the design process. These people not only help you generate design and feature ideas, but can excite their groups about the coming new intranet.
- As you develop the new design, consider making iterations of it accessible to employees (on a staging server) and then encourage their feedback. Explain the major changes and highlight the benefits.
- Include usability and beta testing in the design and communication processes. Follow up the usability research by communicating how user behavior and feedback helped steer design changes. (But don't use the testing sessions themselves to convince people that the intranet is better; these sessions are best used solely for research and analysis.)
- Designate staff members to respond to employee questions and comments for the first few months after launching a new design.
- Stage events, contests, and promotions on the intranet itself and in other places to describe new features and processes.
- Keep promoting for a few months after launch; some employees may not have time to explore the site right away.

UNDERSTAND THE TECHNOLOGY

Some intranet teams are stuck with particular technology solutions. Others have the freedom to shop around for the best tool for the project. In either case, it is important that teams take the time to understand what the technology can — and can't — do. It's equally important to decide if the functionality meets the needs of the organization. Just because a tool enables you to provide a particular feature, does not mean it's a good solution for your employees.

Over the years, winning intranet designs have usually come from organizations that took a technology solution and made it fit their needs through extension and/or customization, as opposed to simply using it out-of-the-box. Teams took the time to understand the tool inside and out, and worked with it to meet the organization's specific requirements.

Some teams have the time and expertise to do this. Others rely on outside experts to help with technology issues. Some companies can customize from the get-go, while others need to stick to what's offered. Knowing the technology and any challenges upfront can help minimize unexpected glitches down the road.

PERSONALIZE AFTER YOU CREATE THE INFRASTRUCTURE

Personalizing the intranet can help people find what they want and expedite work. Hiding things users don't need can also have positive effects by eliminating clutter and overload. However, personalizing is about more than designing the interface; it also involves designing systems for collecting and tracking timely information about users. This process typically involves HR and other departments, and sometimes many databases as well. In short, it can be a lot of work and involve legacy systems and half-organized data consolidation.

We suggest that all intranets ultimately strive to give each user an effective, personal experience. But don't get ahead of yourself and try to do this before the back-end infrastructure is in place.

HELP CONTENT CONTRIBUTORS SUCCEED

Inventory and audit your content before doing anything else. Remove what you don't need (redundant, outdated, and trivial = ROT), edit when it makes sense, and curate, curate, curate.

The most welcomed intranets are those with fresh information that people need and want. One way to keep information updated and interesting is to provide methods for employees to add and edit information. Allowing users — in addition to designated content providers — to contribute content gives them a stake in the intranet's success. Such efforts invariably produce compounded returns. Fostering excellent content providers results in better content overall, which leads to more varied and useful information, which drives more employees to the intranet, and thus ensures that the intranet remains a business-critical tool.

CONSIDER ACCESSIBILITY

If our organizations have any employee retention to speak of, we probably have older people working with us. As people live longer in our modern age, many work longer too, yet their sight and dexterity, among other things, gradually wanes. Intranets should not forsake this important population. Designs should make it easy for *all* employees to work effectively.

Assistive technology is another factor. Many organizations employ — or will at some point — people who use assistive technology. Yet many intranets submitted for consideration in our Design Annual posed accessibility problems for users with low vision, no vision, or motor-skill challenges. The primary problems we observed were too many busy graphics, tiny text, poor contrast between the text and background, limited space between links and text, and small link targets that were hard to click.

MEASURE ROI

When embarking on any intranet redesign, measure whatever you can. To show some kind of return on investment in the new site, you need to have starting values against which to measure.

Most intranet redesigns make obvious strides forward, with great usability improvements that foster productivity and improve work efficiency. Yet it can be difficult to formally — or informally — measure ROI on intranets. Measurements can be tricky due to tight schedules and the way organizations allocate money. For example, the money to design and maintain the intranet might be allocated to the vice president of IT, while productivity gains are found in the HR or corporate communications department.

A simple measurement of ROI is time on task. Measure the time users require to accomplish a task, both before and after a redesign. Use the decreased measure of time on task to calculate the resulting financial savings across your organization. Communicate the positive ROI to the different departments involved, and to higher levels, so that even upper-level managers understand the importance of well-designed internal systems.

Consider other ROI measurements as well. For example:

- Do collaboration tools or stories about individual projects or employees result in new work sold, new solutions found, or new collaborations across the organization?
- Do idea boards result in more efficient processes and savings across the organization?
- Are networking tools promoting collaboration and improving team dynamics?
- Does automating a process on the intranet free up time for the department that previously handled that task?
- Does providing essential tools and information take employees' less time than finding the same information on their own?
- Does enabling online communication or meetings decrease travel costs and time compared to in-person meetings?
- Does moving information online reduce printing costs?

PLAN TO MAINTAIN AND ENHANCE THE INTRANET

We've seen too many companies complete redesign projects and then leave the site to run itself, only to find the intranet a big mess again a year or two later. For sites to be successful, they must be maintained and managed. Although the team dedicated to a redesign is, of course, going to be larger than a team left to run the intranet once it's established, the remaining team must be large enough to support the site structure, help content contributors, and plan and execute enhancements and continual improvements to the site.

Intranet development shouldn't be viewed as a finite project, but rather as a continual process. Governance teams should meet. Resources should be budgeted. Content creators should be supported. Site structure and content should be audited and reviewed. Search tools should be enhanced. At the end of a redesign effort, much work remains to be done.

American Cancer Society

OVERVIEW

COMPANY

The American Cancer Society (ACS) is a global grassroots force of 2.5 million volunteers saving lives and fighting for every birthday threatened by every cancer in every community. As the largest voluntary health organization, the ACS's efforts have contributed to a 20% decline in cancer death rates in the US since 1991, and a 50% drop in smoking rates. Thanks in part to ACS efforts, 14.5 million Americans who have had cancer and countless more who have avoided it will celebrate birthdays this year. The ACS is the nation's largest private, not-for-profit investor in cancer research, ensuring people facing cancer have the help they need and continuing the fight for access to quality healthcare, lifesaving screenings, clean air, and more.

Headquarters: Atlanta, Georgia

Company locations: Headquartered in Atlanta, the ACS has regional and local offices throughout the US that support 11 geographical divisions and ensure the ACS has a presence in every community.

Locations where the intranet is used: All ACS locations across the US.

Annual revenue: Approximately $840 million USD in 2014

THE INTRANET

Users: Approximately 6,000 employees visit ACS's Society Source intranet every day to learn the latest cancer and organizational news and connect to resources, tools, and people to help them perform their jobs.

Mobile approach: Society Source was developed using responsive web design and the intranet is accessible from most mobile devices. A significant number of employees and most external users (such as volunteers) use the portal.

Technology platform: SharePoint 2013

TEAM

ACS: Amy Hadsock, Senior Director, New Channels; Anne Hartwick, Senior Consultant, Society Source Intranet

Neudesic: Matthew Schafman, Solutions Partner, Ideation, Design & User Experience; Chris McCurry, Senior Solutions Partner, Ideation, Design & User Experience; Mitesh Patel, Client Partner

Leadership: Brooke Rivera, ACS Project Manager; Sheila Buchert, ACS Business Lead; Laurie Entrekin, ACS Project Team Member; Kevin Weigel, IT Business Lead; Ravikumar Balasubramanian, ACS Project Team Member; Jay Ferro and Greg Donaldson, Project Sponsors; Matthew Schafman, Neudesic National Solutions Director, UX; Brad Laudel, Neudesic Engagement Manager; Sathish TK, Neudesic National Solutions Director, Portals & Collab

Design (Creative Services): Approximately three people from Neudesic were involved in the research and discovery of the personas' business processes and content needs. Later, a five-person team from Neudesic and ACS Marketing used this research to define the strategy and IA, and then created wireframes and prototypes for testing. One member from Neudesic and one from ACS worked on the visual branding requirements and delivered comps to the offshore front-end development team.

Development (Neudesic): Sathish TK, Lead Architect; Poornima Neelakandan, Technical Project Lead; Vamshi Budarapu, Senior Consultant; Anand Reddy, QA Engineer; Shekhar Sharma, UX Lead; Travis Simpson, Senior UX Consultant; SaiKrishna Thatti, Developer; SuryaNarayana V, Developer

INTRANET TEAM

Team members shown here (top to bottom, left to right): American Cancer Society: Ashok Vantipalli, Kevin Weigel, Anne Hartwick, Brooke Rivera, Laurie Entrekin, Sheila Buchert, Stacey Kuria, Amy Hadsock, Ravi Balasubramanian, Melinda Baker; Neudesic: Matthew Schafman, Mitesh Patel, Chris McCurry, Sathish TK, Brad Laudal, Susan Laurento, Kunaal Kapoor, Poornima Neelakandan, Travis Simpson.

HIGHLIGHTS ABOUT THIS WINNER

Faced with an aging intranet built on out-of-date technology, American Cancer Society (ACS) started a major overhaul to rebuild and unify its myriad sites. As the largest voluntary health organization in the US, ACS aimed to create a site that would support employees and volunteers alike.

To create the new Society Source intranet, ACS worked with the Neudesic agency, which defined the site's ultimate goal: to increase user adoption. The path to doing that included a new site structure, a refresh of site content, and the addition of new and inclusive tools to drive users to the intranet. The effort has been successful: Society Source is now ranked as "most useful" among the eight channels ACS uses for internal communications.

- **User-Focused IA:** One of the site's greatest improvements was the move to a task-based IA. This shift moved content that was previously siloed (based on the department that created it) into common areas. Users can thus locate content without needing to understand the organizational structure. It took time and effort to convince content holders about the value of this improvement, but the hard work paid off.
- **Reduced Content:** The content reduction effort began with an in-depth examination of content on various ACS sites using feedback, surveys, and analytics. Outdated and duplicate information was eliminated, and the remaining content was categorized by audience (rather than creator) to help determine the best place to store it.

  Information specific to departments or teams was moved to appropriate share drives or team sites. ACS dedicated a project manager exclusively to this content culling process, which was essential to its success. The manager motivated the already busy content owners to keep up with tasks and deadlines in order to improve the site experience.

  The reduction in content, along with the unification of different sites on different systems, resulted in cuts to the number of servers needed, reducing their associated costs by 62%.
- **Creation of Communities:** The new site supports departmental and initiative-focused communities. These communities support enterprise-level access to information to help support collaboration and evidence-based decision making.
- **Consistent User Experience:** The previous set of ACS sites included many with completely unique user experiences, designs, and navigational structures. The redesign created a consistent experience for areas such as jobs, HR, and IT, which were previously managed separately.

BACKGROUND

Given the time and money that goes into launching and running a corporate intranet that is customized to an organization's specific needs, it's reasonable to try to squeeze every last ounce of use out of an aging system before deciding to pull the plug. However, at some point, an aging intranet can no longer be held together with duct tape and bailing wire. The ACS had reached that breaking point with its existing intranet, Society Link (aka "The Link").

Despite attempts to keep its Plumtree software on life support, extensive customization meant that the software could no longer be upgraded, leaving ACS with an unsupported intranet platform for more than five years. ACS was thus at the mercy of an antiquated platform that caused several outages per week and failed during major organizational events. The organization's IT department had undertaken several stabilization efforts by introducing hardware redundancy and load balancing, yet software failure continued to be a severe risk.

ACS essentially had two options: migrate to the latest Oracle Plumtree platform or leverage its own SharePoint 2013 environment and secure a partner to help design and develop a new site and also assist with migration and training.

Ultimately, the team elected to design and build a new IA and migrate The Link's current, viable content onto SharePoint 2013. This decision tied into the organization's long-term IT strategy. It would also benefit ACS in terms of cost savings resulting from adopting a fully integrated, unified Microsoft platform.

Although the decision to migrate the intranet to SharePoint was not an easy one, it let the team simultaneously address some of the intranet's other shortcomings. "The Link had not been able to serve as a dynamic, user-centric, mobilized collaboration platform for our staff and volunteers," says Amy Hadsock, Senior Director, New Channels, "neither was it extensible nor scalable."

A new platform would allow the team to truly tailor the intranet environment to ACS's changing needs. It let the team create a new IA model to reflect ACS's recently unified, strategic enterprise model; foster new ideas and enhance communications; reduce business disruptions; and enhance cross-functional collaboration.

"Additionally," says Hadsock, "a single, aligned organization presents the opportunity for revamped governance and security policy — with well-defined roles and responsibilities — that extends across multiple platforms, such as hardware, software, internet browsers, mobile devices, etc., which our new intranet, Society Source, provides."

Goals

The ACS team wanted the new intranet to tie into organizational goals that would help them make specific, achievable improvements. With that in mind, team members crafted the following list of improvements they hoped to achieve in the redesign project:

- Provide ubiquitous access to information
- Create opportunities for collaboration
- Support job functions
- Unify the user experience
- Improve the quality of information-finding and communication
- Support a culture of technology self-reliance

- Design an integrated architecture model
- Establish a governance model
- Provide version-control functionality
- Support business intelligence
- Reduce or eliminate technology and software business interruptions and performance degradation
- Reduce costs
- Reduce administrative overhead
- Design better navigation
- Give workers tools to help them:
    - Publish
    - Share
    - Collaborate
- Remove technology impediments
- Personalize content
- Improve employee productivity through:
    - Single sign–on
    - Comprehensive search
    - Employee self-service features

Constraints

The intranet redesign project happened as ACS was undergoing a fundamental reorganization, which constrained the intranet project in many ways. The team had a limited resource pool; was unable to shift resources on an as-needed basis onto the project; and risked losing subject matter experts to other high-priority projects, maintenance and operational tasks, and attrition.

Kevin Weigel, IT Business Lead, explains how these challenges played out in planning the new intranet:

- **Resource constraints:** "Other high-priority projects and ongoing maintenance, training, and operational tasks threatened to subsume many of this project's key resources."
- **Interdependent initiatives:** "There were a high number of interdependencies with this undertaking. For example, this project was dependent upon a fully scaled, operating, fully provisioned/tested SharePoint infrastructure (development, QA, staging, production, and disaster recovery), all of which was under another project team's scope. The IA was also at the mercy of various interdependencies. There was no enterprise taxonomy defined and the intranet team needed to create an initial IA that worked for different departments."

- **Scope creep:** "While the project team was committed to painstakingly clarifying and qualifying this project's scope, there were a number of evolving variables and decisions that ultimately expanded and impacted this initiative's actual body of work."
    - "For example, presently, some parts of the project and team sites exist on legacy SharePoint platforms (2003, 2007, and 2010). The migration of the content, workflows, and users of these sites, and the design, development, and implementation of replacement sites on the new SharePoint 2013 platform is currently out-of-scope. However, if ACS departments, divisions, programs, and/or communities require the intranet to interface with these projects and team communities/sites, the project team may need to assist in the design, build, and migration effort."
    - "Any and all databases, workflows, [and] business processes hosted on legacy Lotus Notes DBs may be considered for migration to SharePoint 2013 — and currently, this body of work is out-of-scope. Defining the right scope for the initial phase was always going to be a challenge, so prioritization was critical and keeping the expectations under control was difficult in the moving technology landscape after the initial user research. However, since the work on the initial phase is now complete, it may make sense to build the taxonomy and site structure to incorporate these efforts. Various stakeholder groups are considering migration/utilization of the SharePoint 2013 platform, and how these efforts will intersect with the new intranet project team is currently undefined."
- **Workgroups for the ACS reorganization:** "The project team recognized the potentially considerable impact to scope, as the recommendations and their respective implications are presently unknown."
    - "If any of the workgroups associated with the ACS reorganization publish actionable decisions that are contrary to this project's scope, we will need to consider rebaselining the project."
    - "Outputs from those same workgroups may broaden this project's scope considerably; if this should happen, the project team may need to reprioritize."
    - "Reorganization workgroups may produce outputs that include initiatives that take priority over and subsume resources of this project."

- **Insufficient or inappropriate infrastructure:** "The SharePoint Infrastructure build team based their original architecture on generic Microsoft specs and assumptions, but the selected vendor will be conducting an architectural design review. This presents a risk that the results or recommendations will be substantially different and the infrastructure will have to be re-architected and/or additional hardware may have to be procured."
- **Insufficient network:** "There is some level of risk that our current network may not sufficiently handle the additional load/demand of SharePoint."

DESIGN REVIEW

Homepage

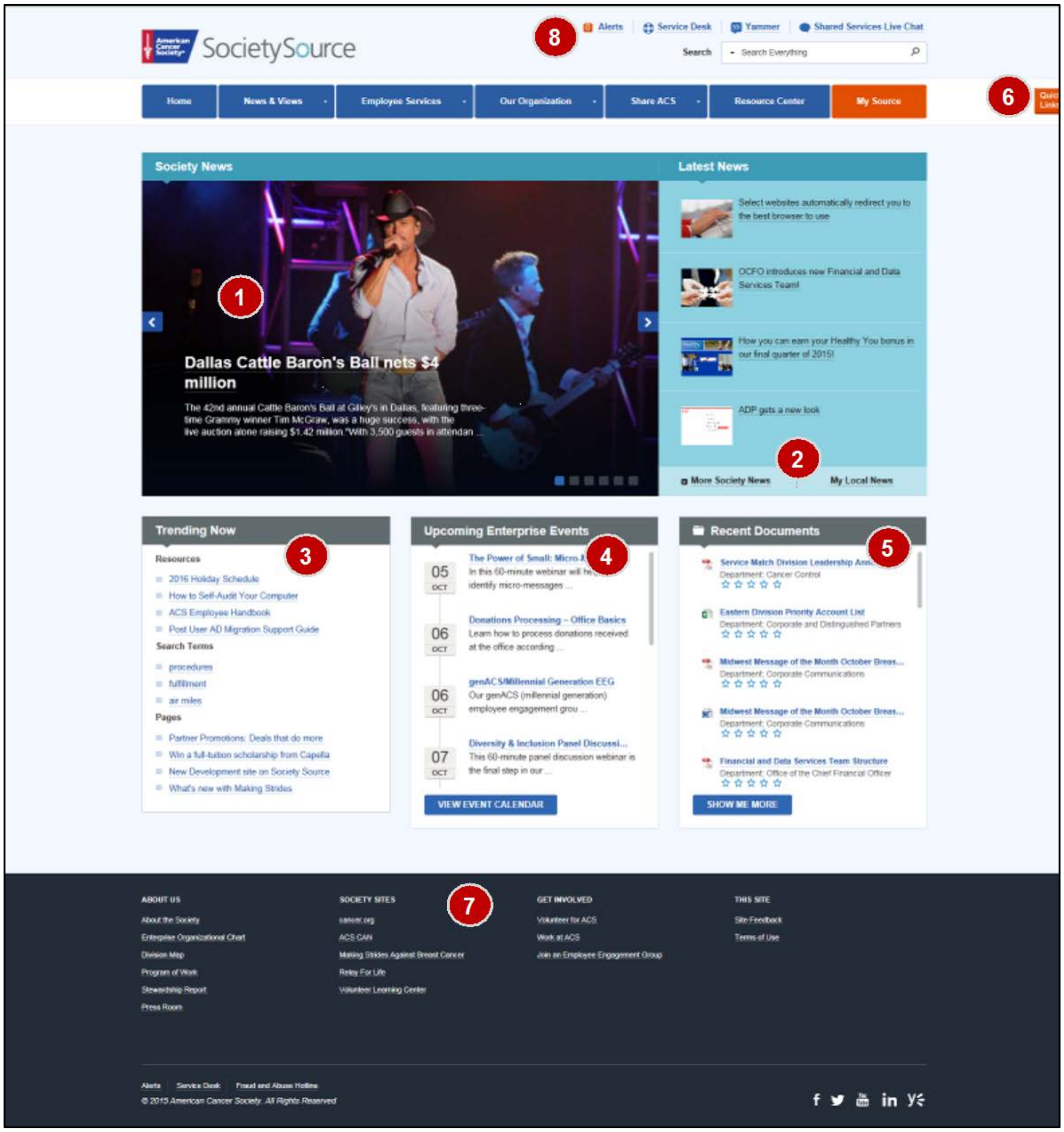


Image 1. American Cancer Society Intranet: Homepage.
01_ACS_01_HomePage_Live.png

Homepage Highlights

1. **Carousel:** The homepage prominently features global news items in a carousel at the top of page. Users can page through the items in the main carousel via arrows on either side of the currently displayed item, and can also view additional headlines on the side of the carousel. This gives users quick access to multiple sources of information. The headlines in *Latest News* change throughout the day as new stories are published. Each story is represented by a photograph and headline.
2. **News Access:** The site provides quick access to additional news stories at the bottom of the headlines list via links to *More Society News*, which leads to additional global headlines, and *My Local News,* which leads to more personalized news.
3. **Trending Now:** Employees and volunteers can keep up on current site content in the *Trending Now* area. This section summarizes the resources, search terms, and site pages that are receiving the most traffic. This simple and automated feature keeps users informed of the site's most popular items, offering them insights into the current activities of both the organization and their colleagues.
4. **Events:** The *Upcoming Enterprise Events* calendar lists each event's date and name, along with a brief description and a link to more details. Users can also directly access the site's complete event calendar via a link at the bottom of the list.
5. **Recent Documents:** A summary of the most recent document-based content posted on the site appears on the right side of the lower column. Each document includes the name, responsible department, and a star rating. A link at the bottom of the list leads to additional documents.
6. **Quick Links:** Floating *Quick Links* follow users on each page of the site. Because it stays in place as they scroll up and down on pages, this sticky element gives users immediate access to important information.
7. **Fat Footer:** A footer at the bottom of each page provides quick access to additional content, including *About Us*, *Society Sites*, and *Get Involved*. Users can also quickly access ACS's Facebook, Twitter, YouTube, LinkedIn, and Yammer accounts via the logo-based links at the bottom of the footer.
8. **Utility Links:** The site's utility links are *Alerts* (for time-sensitive messages and announcements); *Service Desk* (for quick access to support); Yammer (for social content); and *Shared Services Live Chat* (for real-time support). The *Shared Services Live Chat* is available Monday through Thursday, 7:00 a.m. to 7:00 p.m., and Friday 7:00 a.m. to 5:30 p.m. CT. Through this *Live Chat*, users can get immediate answers to questions about donations and invoice processing, event and program data entry, and other operational process questions.

Our Organization **Page**

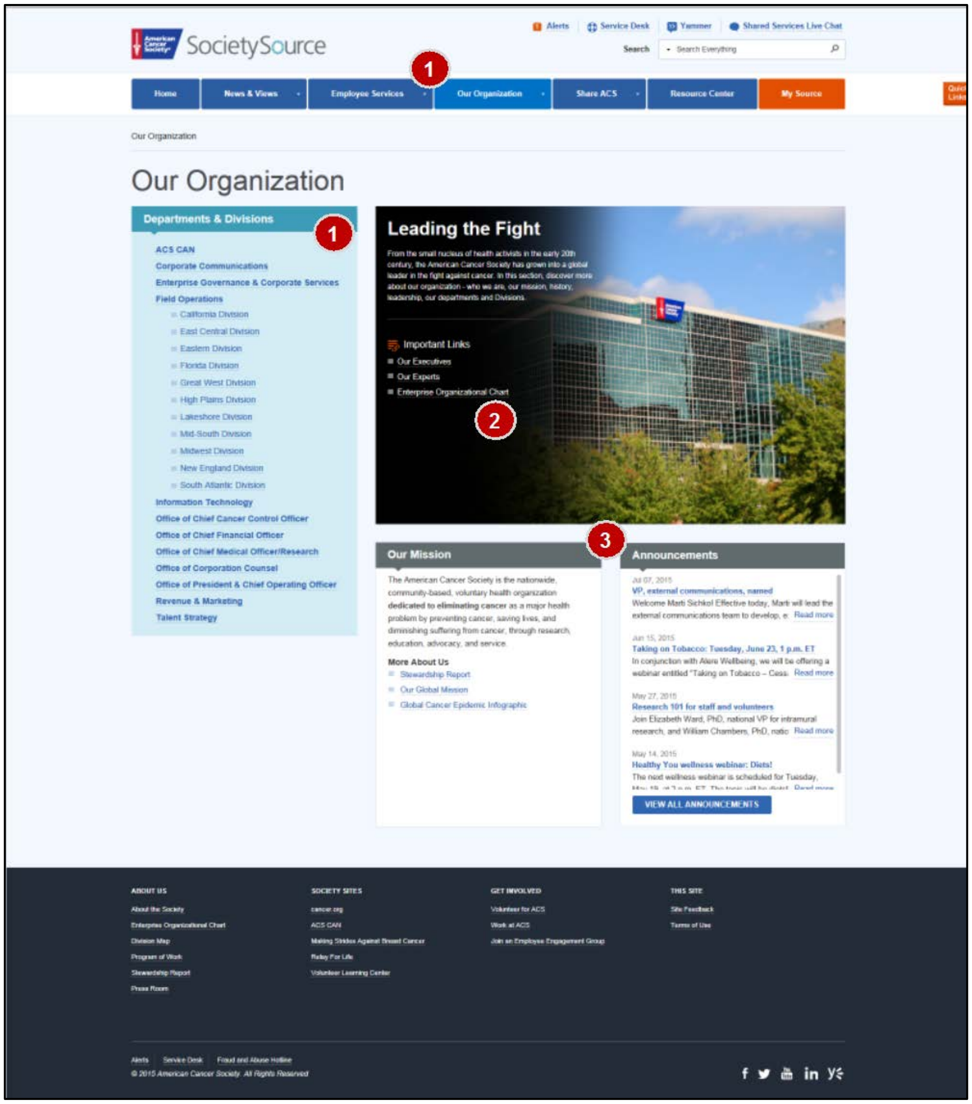


Image 2. American Cancer Society Intranet: *Our Organization*.
02_ACS_02_OurOrganizationPage.png

Our Organization Page Highlights

1. **Task-Based Structure:** Information is now organized by task rather than department throughout the site; the main sections are *News & Views*, *Employee Services*, *Our Organization*, *Share ACS*, *Resource Center*, and *My Source*. The user's current location is indicated by a slightly lighter blue color in the navigation bar, as well as in breadcrumbs at the top of the page and in the navigational links on the side of the page. When a user is in a subsection of the site, a white highlight appears in the left side navigation to indicate the user's current location.

   The *Our Organization* page includes all of ACS's functional departments and divisions and the work they do. Each group has its own site for collaboration. The pages are built with configurable web parts, so teams can easily manage their own sites and content.

2. **Important Links:** Each section's landing page includes links to important or popular information at the top of the page. The links area includes a representative image of the department's programs or products and a brief introduction to the site section.

3. ***Our Mission* and *Announcements*:** Each section's landing page includes key content for that section. The *Our Organization* page includes a reminder about the organization's mission, as well as links to relevant supporting documents (including the *Stewardship Report*), more about the global mission, and an infographic about the global cancer epidemic. This content is accompanied by a list of announcements relevant to the site section.

Resource Center

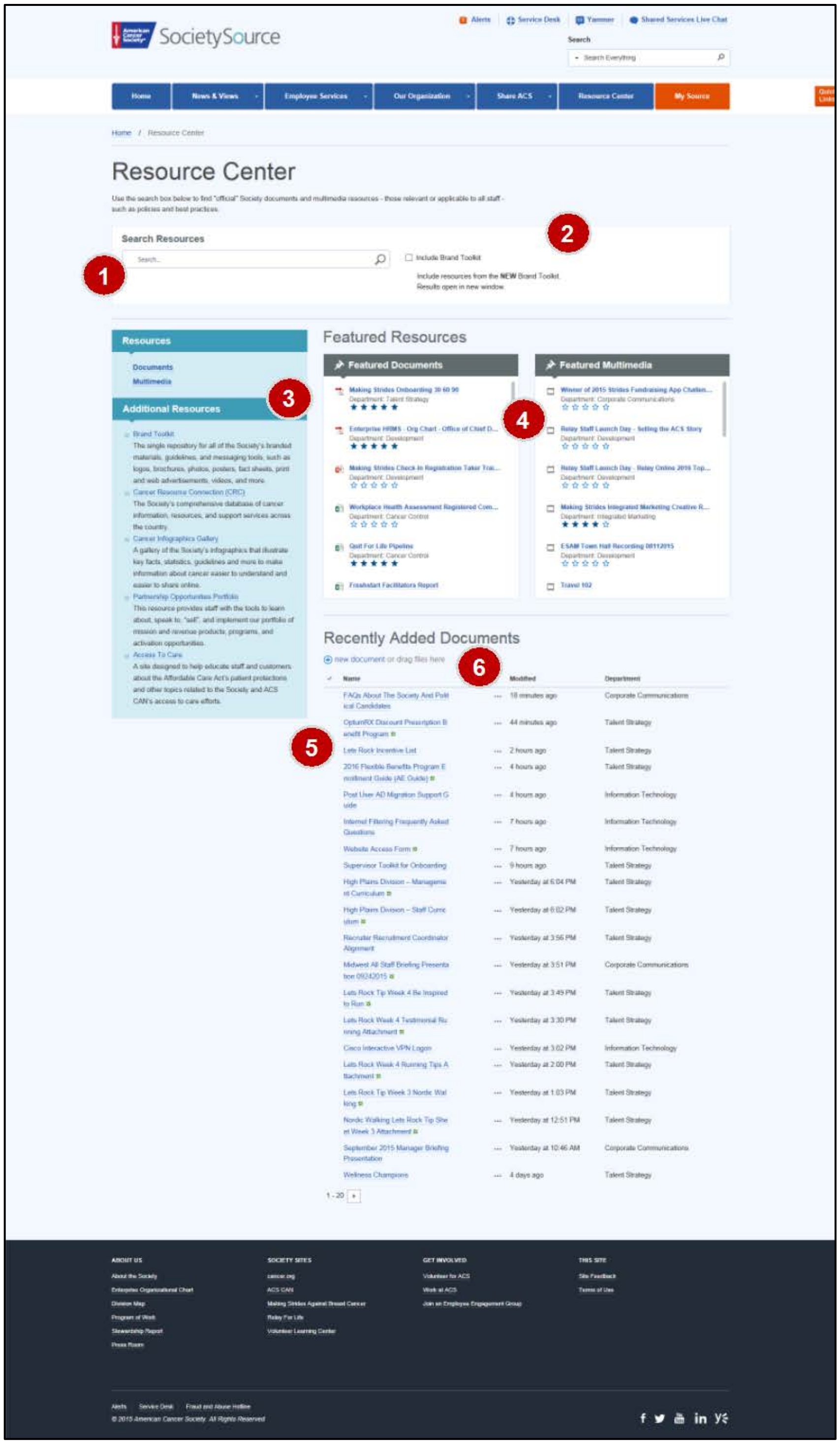


Image 3. American Cancer Society Intranet: *Resource Center*.
03_ACS_03_Resource_Center_Page.png

Resource Center Highlights

1. **Prioritized Search:** One of the biggest complaints about the previous intranet was the difficulty of finding documents. The new site centralizes documents and multimedia in a single *Resource Center*, with the search feature front and center. This helps users quickly find the information they need. Crowd-sourced tagging, here and throughout the site, allows for constant refinement of metadata, which helps improve the search.
2. **Brand Toolkit:** Users can choose whether or not to include the Brand Toolkit in the search. The Brand Toolkit is a digital asset repository for all of ACS's branded materials, guidelines, and messaging tools, including logos, photos, fact sheets, brochures, posters, print and web advertisements, and videos. The team decided to exclude this repository from standard site searches, but it can be added to search for those who need its specific content. This made the Toolkit data available through the site, even though it is not fully integrated with the rest of the search tools.
3. **Resources:** Users can navigate directly to only documents or only multimedia resources as needed. The *Resource Center* page also includes links to popular resources that are not within its library, including the Brand Toolkit and the Cancer Infographics Gallery. Each external link is accompanied by a brief description of the content users can find there. Providing these links notifies users that those libraries are in another place; it also gives users quick access to them from a central spot on the main intranet.
4. **Promoted Content:** Promoted content appears in the *Featured Resources* and *Featured Multimedia* areas. The Society Source's content creators self-select the items in *Featured Resources* based on an item's priority and the general view of its importance. *Featured Resources* changes daily and gives intranet users quick access to high-priority content.
5. **Recently Added:** The *Resource Center* also offers users a list of *Most Recently Added* documents, which includes the document title, information about when the document was last modified and which department added the document.
6. **Adding Documents:** Society Source content creators can add a new document by clicking on the "plus" sign below the *Recently Added Documents* heading or by dragging and dropping a file onto that page area. This drag-and-drop functionality makes it quick and easy to add a document to the library; however, the feature's placement is a bit unexpected and could be moved to the top of the page or otherwise made more prominent.

Search

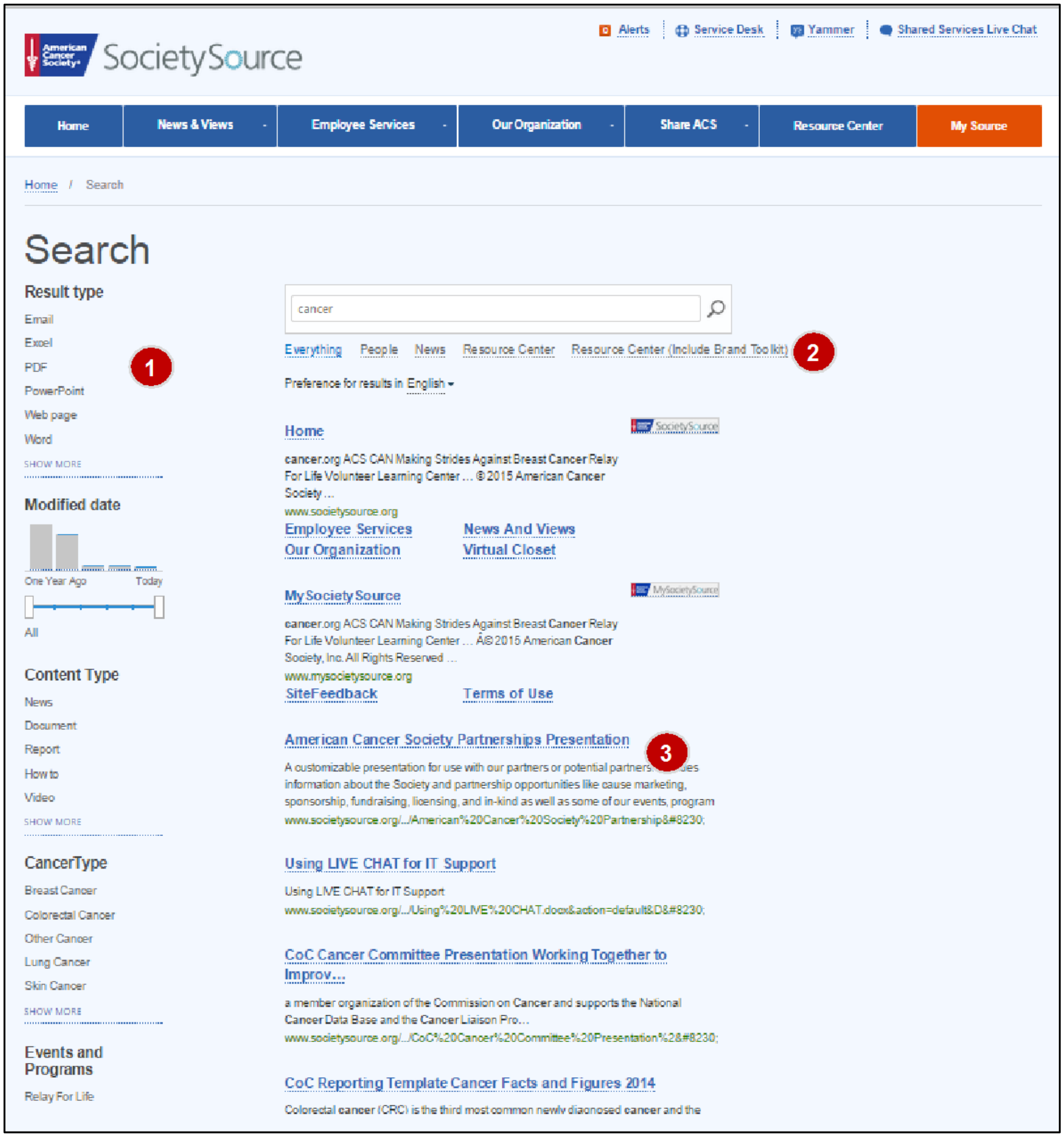


Image 4. American Cancer Society Intranet: Search Results Page.
04_ACS_04_LiveSearchResultsPage.png

Search Highlights

1. **Facets:** The site is built on SharePoint and uses SharePoint 2013 Enterprise search. The team used feedback from focus groups and stakeholders to help refine the facets that appear along the side of the page. Users can narrow their search by document type, modified date, content type, or cancer type, or search Relay for Life, the organization's primary fundraising event. Including cancer type and a key organizational event — rather than going with the standard search defaults — shows the attention to detail that makes this tool work for ACS.
2. **Scope:** The search scope defaults to searching everything, but users can refine it by selecting the type of information and source they want to focus on, such as people, news, or the *Resource Center*, including the Brand Toolkit. The Brand Toolkit is a digital asset repository for all of the Society's branded materials, guidelines, and messaging tools, such as logos, photos, fact sheets, brochures, posters, print and web advertisements, videos, and more. This mimics the options in the open search field available on every other page of the site, where the scope defaults to the broadest search but users can utilize a drop-down to narrow their focus.
3. **Results:** Results are specific to each user. Relevancy is based on the user's profile and their level of access to content, as well as on the enterprise taxonomy and IA. Monthly analytics are run to help adjust metatags to match user search terms.

Support for Content Creators

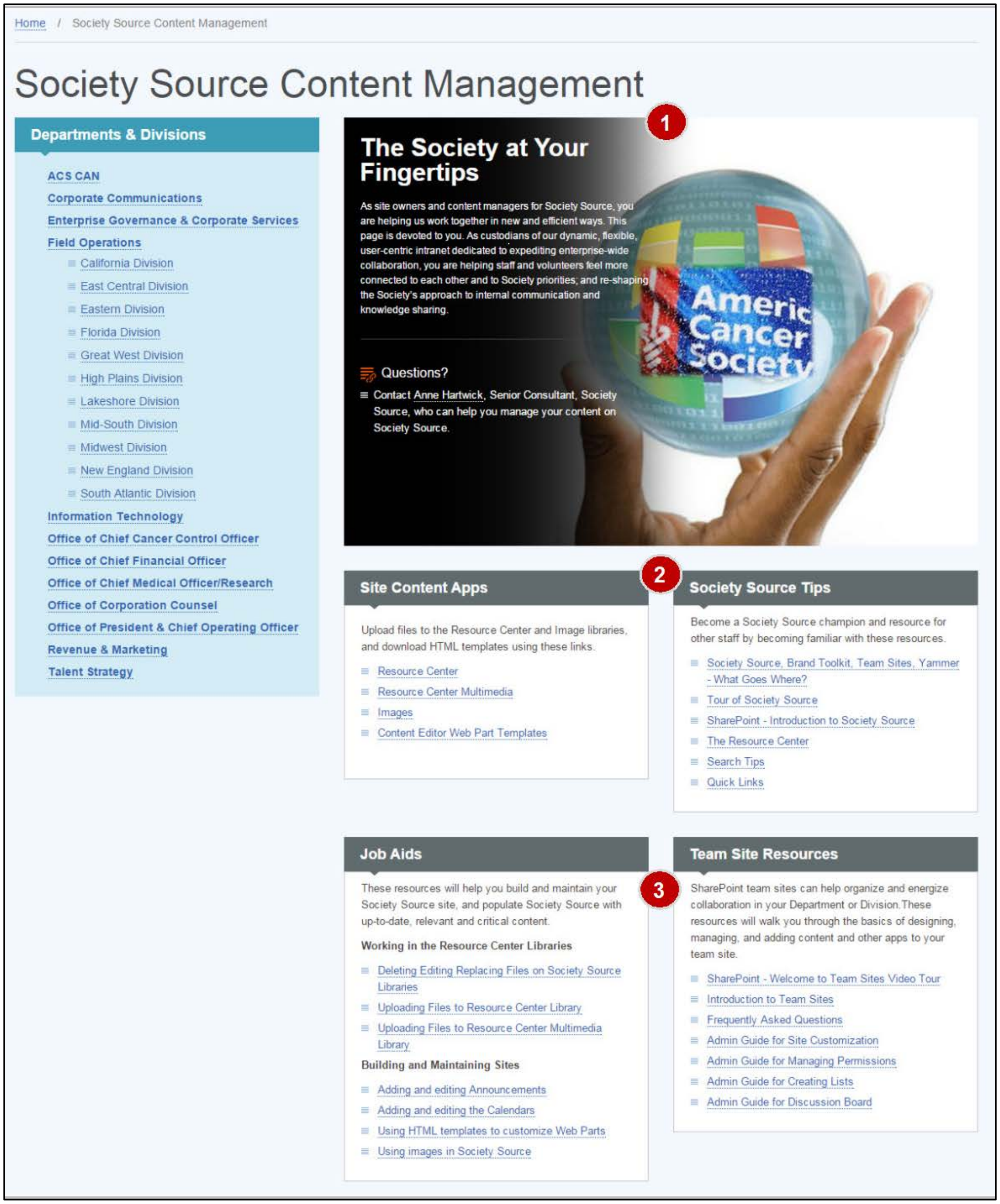


Image 5. American Cancer Society Intranet: Support for Content Creators. *05_ACS_05_Society_Source_Content_Management.jpg*

Support for Content Creators Highlights

1. **Resources:** Two hundred content contributors add information to the site, in addition to intranet team members and guest authors, who are encouraged to post information about specific campaigns and events. Contributors are trained in content posting and then supported by both a content management page (with information and job aids) and occasional training and community-building events. Contributors receive quarterly reports about expired documents and are asked to regularly review sites. In addition, each site page has a user feedback link.

2. **Apps and Tips:** Contributors can quickly link to areas for uploading content and retrieve templates using links in the *Site Content Apps* area. *Society Source Tips* includes documents covering where to post content, how different site areas work, and tips for searches.

3. ***Job Aids* and *Team Site Resources*:** In these sections, employees can find information about creating content in various site areas, including the basics of uploading, deleting, and managing information in the *Resource Center*. They can also view instructions for preparing content, such as for announcements and events, or creating specific pages. *Team Site Resources* provides information about creating collaborative areas based on the team or project. This area supports all types of content creation, from a simple file upload to customizing a team site.

Mobile Design

Image 6. American Cancer Society Intranet: Responsive Design for Mobile Viewing. *06a_ACS_06a_HomePage_phone.png* and *06b_ACS_06b_OurWorkPage_Tablet.png*

Mobile Design Highlights

1. **Responsive Design:** The site uses responsive design via Twitter's Bootstrap Framework. Rather than targeting screen resolutions, the team aimed for a general phone and tablet experience. Although the framework makes the site available on mobile devices, the site is not yet optimized for mobile. The team plans to do further research and testing on the mobile experience moving forward. For now, simply having mobile access where none previously existed is an accomplishment.
2. **Hamburger Menu:** The team used a hamburger menu to keep navigation available, but out of the way, on the mobile site.
3. **Prioritizing Information:** The mobile view includes the news carousel, which highlights one of the desktop site's four news stories and offers links to the other three. Additional content areas wrap down the page in a two-column design.

DESIGN PROCESS AND USABILITY WORK

ACS's previous intranet, *The Link*, had become very unpopular and many staff had complained about its shortcomings. A survey was conducted to find out exactly where The Link was lacking, and the results were used to help make the case for a new intranet. Concurrently, ACS was also transforming into a single, centralized organization rather than having its divisions operate as separate entities. This offered the perfect opportunity to build the case for a new ACS intranet, which would be the one go-to place for news, information, and collaboration as the organization became a unified entity.

The ACS team brought in Neudesic, a user experience agency, to help find the best solutions to meet its many project needs. Together, the Neudesic and ACS teams conducted several research activities that helped inform their design choices, including:

- **Gathering feedback:** Neudesic followed an Agile approach that included a two-week discovery period. During that time, team members conducted surveys using ACS's internal Yammer tool, department stakeholder interviews, and a content inventory-based discovery, gathering feedback and deciding on the user experience based on *The Link's* existing content. The survey findings summarized department breakdowns, risk factors, and next steps.
- **Evaluating usage:** The team conducted surveys and consulted analytics data to find out which features and sites were most used.
- **Involving stakeholders:** The team interviewed stakeholders in each department to understand their needs. Through these interviews, team members discovered both the existing intranet areas that were most valuable to the organization (and therefore would be prioritized sooner in the migration process) and the pressing user needs for the new intranet. This research helped them prioritize the departments and content and decide on migration phases, starting with the most important and widely used content. It also helped team members decide which content was no longer important to either users or stakeholders and thus didn't need to be moved. This user research also informed the IA of the site.

The project plan was heavily informed by the research findings, which were particularly helpful in creating the IA. "Our research was helpful in uncovering a LOT of internal jargon in each department," says Melinda Baker, Director, Web Marketing. "We were able to use the lack of knowledge of this inside lingo to normalize the labels and language to be understandable by people outside of each department. Many departments assumed that everyone understood and knew what they did, and our research was able to show that wasn't the case. As a result, the UX team suggested labels that were more universally understood, as well as labels that bring things together into user tasks, not just departments.

"The best advice I can give for creating a helpful menu is to ensure you are supporting your users and not just creating silos for departments," she says. "Having a team that was dedicated to creating and supporting the intranet made this an easier task, as well as having a strong business owner who made decisions based on UX recommendations and user feedback.

"We pushed hard to ensure that the IA and site organization worked for users and wasn't just building a site structure that mapped to our department structure," says Baker. "That took a lot of work and discussion."

In the time leading up to Society Source's launch, the team implemented a big communications campaign to build momentum and generate excitement. In it, team members played up the poor functionality of the previous intranet and started to tout how the new intranet solved each of those issues. By launch date, staff members were excited about what they were going to see, and the team received lots of positive feedback on the new intranet via ACS's internal Yammer site.

Image 7. American Cancer Society Intranet: Old ACS Intranet. The Link as it appeared from approximately 2004 to 2013/14. *07_ACS_07_The Link_old_intranet.jpg*

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
Neudesic UX Team	• User research • Feature prioritization • IA and taxonomy; conducted card sorts with relevant user groups and so on • Wireframes and design concepts • Usability testing using proof-of-concept designs and prototypes
Neudesic Collaboration & Portals Team	• Configuration of enterprise taxonomy and IA • Custom development and integration of features • SharePoint search enhancements • Self-service model development and workflows for business process automation
Neudesic Managed Services	• On-going support (T1 and T2) • Enhancements and bug fixes

GOVERNANCE

Corporate Communications is the business owner of the corporate intranet; departmental leaders own the team sites and corresponding departmental content and collaboration.

The previous intranet had an IT-driven support system, which has now been replaced by a self-service and governance-driven support system facilitated by Corporate Communications and IT when needed.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Intranet Leadership Team	• Lead intranet governance model plan • Prioritize feature enhancements • Review usage analytics • Create and review content; lead by example • Lead adoption-focused events and webinars • Absorb and gather user feedback • Oversee usage guidelines, policies, and procedures • Oversee site structure, permissions, and branding • Oversee enhancements for site navigation and search • Update and maintain corporate taxonomy • Support service-level agreements between support teams (Neudesic and ACS IT) and business (ACS) and end users
Corporate Communications	• Create and review content; lead by example • Encourage participation in leadership blogs • Oversee Yammer communications and corporate news • Promote content from other information repositories to the intranet • Coordinate intranet author induction training
Departmental Content Owners	• Update and maintain departmental taxonomy • Create and review departmental content; lead by example • Control access and permissions for departmental content • Promote departmental content
Training & Support	• Oversee training and best practices coaching • Identify and train departmental leaders • Manage archiving and versioning • Organize content • Conduct "Train the Trainer" and "Ask the Expert" type events

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• https://www.societysource.org
Default Status	• The intranet is set as the homepage for all users and bookmarked in their browsers.
Remote Access	• Users can access the site remotely (when not on the corporate LAN).

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
2004	• The organization's first intranet, Society Link (aka "The Link"), was launched
January–May 2013	• New intranet vendor RFP process
May–July 2013	• **Phase :** Requirements gathering, design, and planning
August–December 2013	• **Phase 2:** Development of initial sites
December 6, 2013	• **Wave :** Launched Society Source, including Corporate Communications, Talent Strategy, and IT departments
January–November 2014	• **Wave 2:** Site development for remaining departments and divisions
November 2014	• All departments and divisions launched
May 2015	• Volunteer access granted with launch of My Society Source site (mysocietysource.org)

CONTENT AND CONTENT CONTRIBUTORS

CONTENT DEVELOPMENT AND OVERSIGHT	
Contributors	• Approximately 200 contributors support their department's presence on the intranet. Departments identify contributors based on their experience and their role in the organization.
Training	• The organization provides a portal page devoted to content management. The page is filled with information and job aids to help content managers and site owners manage their Society Source presence. Contributors are trained before being granted contributor permissions. Based on their role, they learn how to upload and update files in the document library, add and delete items in department announcement and calendar lists, and change out content editor web parts using HTML.
Maintaining Quality	• The **internal communications team** in Corporate Communications works with their department clients to periodically review sites and update content. • **Contributors** are asked to review their sites regularly and receive a report on expired documents each quarter. • **Users** can provide site feedback by clicking on a link in the footer on each portal page. User feedback makes team members aware of stale, outdated content or site areas that might not be functioning properly.

Content Guidelines

ACS developed a set of content guidelines to support the vision and ongoing development of the SharePoint intranet in a strategic and consistent manner. These guidelines highlight the best practices that all users and site designers should understand and follow to ensure SharePoint's success; the guidelines include the following directives:

- **Be user-centric:** The quality of the user experience is critical to SharePoint's success. The site is based on employees' needs and designed to address behavioral barriers. Users can access local news and resources and decide which content to follow based on their changing needs. Site structure is built around user communities (such as everyone who works in Talent Strategy or everyone in the Florida Division).
- **Create a collaborative culture:** User platform adoption is fostered by building a collaborative culture in which spontaneous interactions help drive the nonlinear growth of SharePoint's value. Successes are communicated through user stories that not only showcase SharePoint solutions, but also showcase the people who helped create them. Users are encouraged to share their knowledge, content, tips, and tricks so that training becomes a continuous activity in the core culture. "SharePoint champions" within business teams also help drive SharePoint into the business.
- **Support findability:** SharePoint's foundation is in connecting people with the right content, at the right time, in the right place, in a way that is simple and intuitive. This is accomplished, in part, by a well-defined taxonomy and metadata elements that help drive search relevance. Content in SharePoint is tagged using a list of tags common across the enterprise, which creates a shared framework that enables navigation across many sites.
- **Have business ownership:** Managing SharePoint content is a business imperative. Technology is accountable for availability, performance, and feature set. However, each content item in the system should have an easily identifiable business owner, and all business owners must understand the update, security, and retention needs of the data they publish. When people leave the company, ownership is transferred, preserving long-term accountability.
- **Present one version of the truth:** Only one authoritative source for enterprise content exists. Duplication should be avoided. Email, IM, and other communications should link to the definitive content item.
- **Support a least-privileged access model:** The ACS security model is based on least-privileged access to create a more secure environment that is relatively easy to support. Users have permissions to support the job functions they need to perform, but are not burdened with extra buttons, which can create support issues. As much as possible, sites, subsites, lists, and libraries are arranged to share most permissions. Sensitive data is separated into privileged lists, libraries, or subsites.
- **Create for reuse:** The SharePoint intranet uses templates for sites and pages to leverage a standard set of features and tools that offer users a consistent look and feel across the entire intranet. This template approach also helps save time and effort down the road, as well as improves adoption rates.

- **Encourage self-governance and accountability:** Site owners and users are empowered to maintain and account for the integrity of content and interactions on the site, rather than have the enterprise impose and police a set of rules.

Culling Content

In the first phase of the site development process, content contributors were asked to inventory their content. This was a manual process in which contributors categorized their content by audience to determine the appropriate data storage location. Content identified as relevant for the entire enterprise was moved to the new intranet portal and the appropriate metadata was applied. Old content was deleted or archived. Content that was relevant only to specific teams or departments was placed in file shares or SharePoint team sites.

ACS had an internal project manager exclusively devoted to tracking each department's progress through this process, which was critical to keeping it moving along. "Without this constant monitoring, the project would have lagged and faltered," says Hadsock. "Many of our contributors have a full portfolio of work already, and their responsibilities to site development were added onto already full plates."

The project manager's job was to allow enough time for each site development phase — content inventory, content mapping, gap identification, site content development, site training, site building, site testing and refinement, and site launch — while also holding staff members accountable to the timelines. This work was critical to the new intranet's success.

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• **Processor:** 64-bit, 4 cores • **RAM:** Web Front End (WFE) server in a three-tier farm (16 GB) • **Hard disk:** 80 GB free for system drive, 50 GB D drive, 150 GB E drive; maintain 2x free space as available RAM
App Server	• **Processor:** 64-bit, 4 cores • **RAM:** App server in a three-tier farm–16GB hard disk; 80 GB free for system drive, 50 GB D drive, 150 GB E drive; maintain 2x free space as available RAM
DB Server	• **Processor:** 64-bit, 2x8 cores (16 cores) for medium deployments • **RAM:** 16 GB for medium deployments • **Overall RAM:** 128 GB • **Hard disk:** 450 GB free for system drive
Web & Application Servers Software Requirements	• Web Server (IIS) role • Application Server role(s) Microsoft .NET Framework 4.5 Microsoft Information Protection and Control Client (MSIPC) • Windows Identity Foundation .0 and WIF Extensions, SQL Native Client 2008 R2 SP1, Sync Framework .0 SP1 • Windows Server AppFabric (Velocity) + CU1 (KB2671763), WCF Data Services 5.0 (ODataLib – Open Data Library), Windows PowerShell 3.0
Database Servers and Software Requirements	• Microsoft SQL Server 2012 Enterprise Edition

	• Office 2010 or Office 2013 for full offline/integrated experience • **SharePoint Designer:** SharePoint Designer 2010 works only for 2010 mode sites; SharePoint Designer 2013 works for both 2010 and 2013 mode sites. • **SharePoint Workspace:** SharePoint Workspace 2010 works for 2010 mode (“14 mode”) sites; SharePoint Workspace 2013 introduces new SkyDrive Pro to replace SharePoint Workspace 2010 as part of the Office client installation).
Bug Tracking / Quality Assurance	• Microsoft Visual Studio, Team Foundation Server (TFS)
Design Tools	• Photoshop, OmniGraffle, MindNode Pro
Site Building Tools	• Neudesic migration framework to move content from Plumtree; SharePoint designer and SharePoint CMS to build the site
Content Management Tools	• SharePoint 2013
Search	• SharePoint 2013

RESULTS AND ROI

ACS didn’t have a financial target; instead, it focused on replacing an antiquated solution with a more modern intranet that better met the needs of staff and volunteers. However, the new intranet did have associated cost savings: ACS was able to cut the number of servers and server-associated costs by 62%.

Measuring Performance

ACS uses Google Analytics to prioritize enhancements; measure employee adoption rates; and improve search, training, and support. The organization also produces a monthly dashboard to monitor site usage (including session duration, pages per session, pages visited, and news items accessed), trends, and search usage. Monitoring these metrics lets the team identify trending topics and make adjustments to metadata tags to better match user search terms. The dashboard also identifies key content areas that need further promotion and training to ensure staff can easily find what they are looking for.

Society Source: Top 10 Pages by Views

Page	May	June
Society Mart	22,461	16,391
Cancer Resource Connection	8,155	9,673
Society Jobs	8,691	7,612
Resource Center	3,785	3,355
Access: Learning	3,191	3,148
Society Benefits	2,944	2,434
iTravel	2,350	2,055
IT For Me	2,072	1,874
Society News	1,642	1,487
Manager Resources	1,661	1,467

An example of Google Analytics results for the ACS intranet for May and June 2015.

Society Source: Trending Search Terms

April: Search Term	Total Unique Searches	% Total Unique Searches	May: Search Term	Total Unique Searches	% Total Unique Searches	June: Search Term	Total Unique Searches	% Total Unique Searches
1. society mart	237	1.34%	1. procedures	246	1.56%	1. holiday schedule	339	2.02%
2. employee handbook	177	1.00%	2. society mart	179	1.14%	2. procedures	273	1.62%
3. procedures	134	0.76%	3. employee handbook	158	1.00%	3. employee handbook	217	1.29%
4. national volunteer week	120	0.68%	4. employee advantages	156	0.99%	4. society mart	118	0.70%
5. brand toolkit	82	0.46%	5. ncic procedures	90	0.57%	5. where the money goes	117	0.70%
6. sharepoint	80	0.45%	6. sharepoint	88	0.56%	6. org chart	112	0.67%
7. esam	77	0.44%	7. brand toolkit	83	0.53%	7. ncic procedures	100	0.59%
8. itravel	76	0.43%	8. esam	65	0.41%	8. esam	87	0.52%
9. position roster	76	0.43%	9. eprf	62	0.39%	9. sharepoint	84	0.50%
10. gary reedy	75	0.42%	10. you decide	59	0.37%	10. you decide	66	0.39%

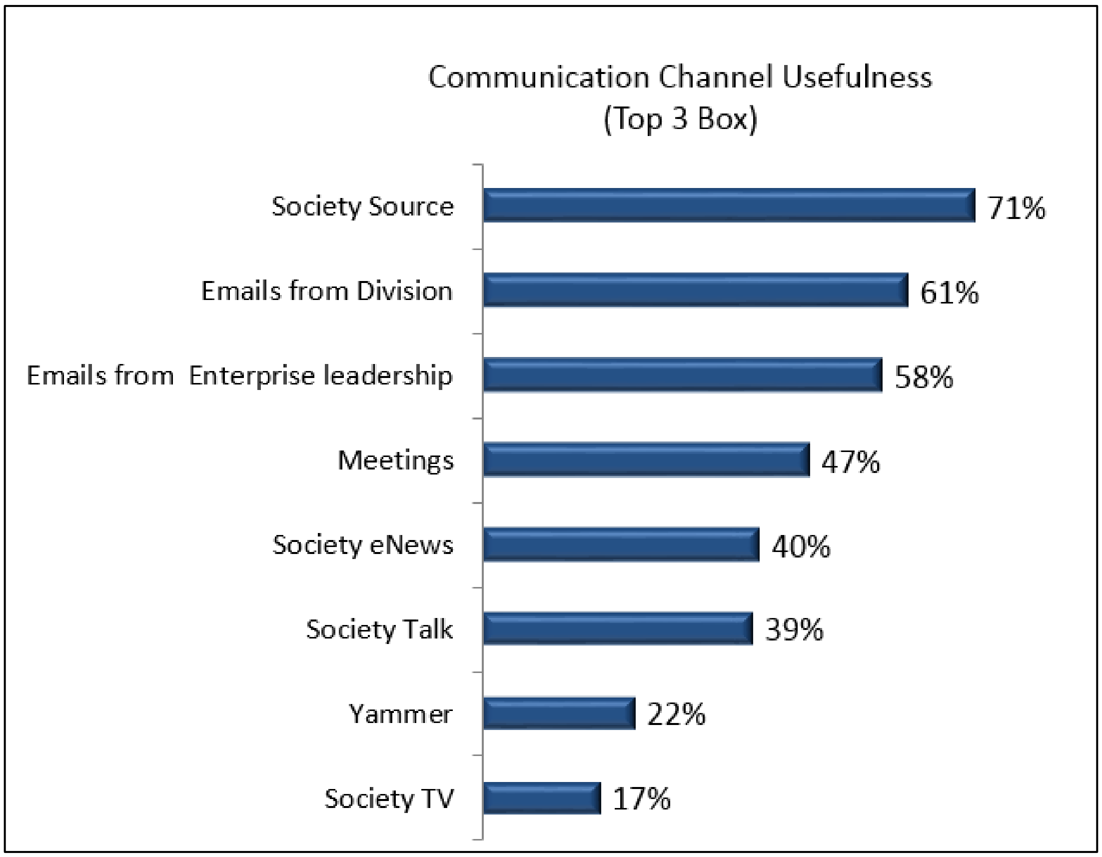
Google Analytics results for trending search terms for April–June 2015. ACS uses these metrics to adjust metadata terms and thereby ensure intranet users get quick access to what they are looking for.

Measuring Satisfaction

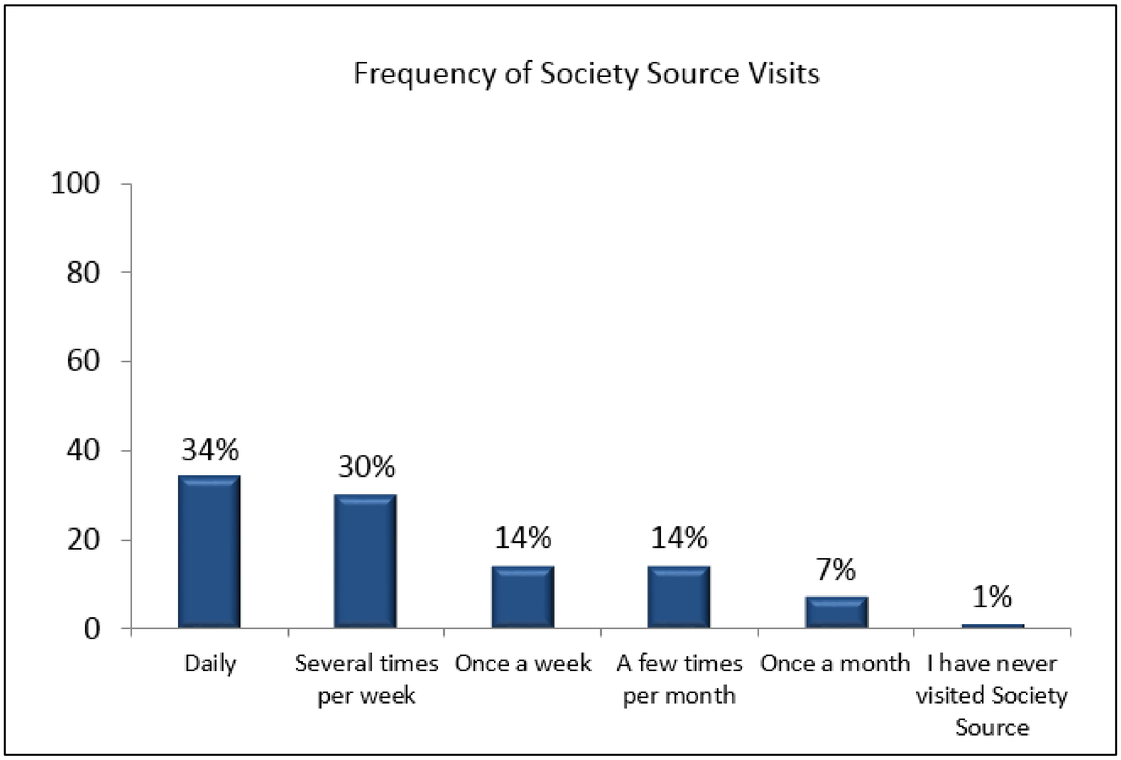
Many intranet teams measure user satisfaction to ensure that the site meets employees' expectations and thus help ensure that they'll engage with it. On the previous ACS intranet (The Link), satisfaction ratings on overall functionality, professional appearance, and intuitive design all fell below the top-three average ratings on the 10-point satisfaction scale. The Link's "intuitive design" scores were the lowest, and its lack of intuitive design was the subject of a majority of the open-ended complaints. This low rating helped drive the redesign effort.

Following the new intranet's launch, the ACS conducted a survey with all staff members aimed at better understanding their communications preferences and how they were currently consuming information. On that survey, staff members ranked the new intranet as the most useful communication channel out of the eight channels used for internal communications; the results indicate that staff members view Society Source as the go-to source for news and information, and a place that offers quick and easy access to other tools they need to do their jobs.

On the survey, 71% of staff rated the intranet the most useful communications channel. Results also showed that 64% of staff used Society Source either daily or several times per week.



A post-launch survey revealed that the new ACS intranet is considered the most useful communication channel at the organization.



A post-launch survey revealed that the new intranet is one of ACS's most-used information resources, with 64% of the staff using Society Source either daily or at least several times per week.

LESSONS LEARNED

The ACS team shares a few of the key lessons learned from the intranet redesign process:

- **The discovery phase is critical.** "The biggest problem on most projects is the discovery. I think we learned that it was critical to increase communication between the design and delivery teams and the end users and business stakeholders. In order to align the delivery team with the expectations of the ideation process, we went through a lot of prioritization cycles. We had scope and development expectation challenges when stakeholders, end users, and delivery groups were not aligned."
- **Focus on quality rather than quantity.** "Set a clear expectation of what is in scope and not in scope — but be flexible. Don't boil the ocean with features that half work. Users would rather be limited to five features that work really well than 10 that don't."
- **Design to define.** "The more you can ideate as a group on a whiteboard or sketching, the leaner your design process will be. I think most design teams want to dive into the details too early, before they have defined what they are solving."

Cadwalader, Wickersham & Taft LLP

OVERVIEW

COMPANY

Established in New York City in 1792, Cadwalader, Wickersham & Taft LLP is one of the oldest continuously operating law firms in the US.

Headquarters: New York, NY

Company locations: New York, London, Charlotte, Washington DC, Houston, Beijing, Hong Kong, and Brussels

Locations where the intranet is used: All company locations.

Annual sales: N/A

THE INTRANET

Users: Approximately 950

Mobile approach: N/A

Technology platform: SharePoint 2013, Handshake, Neudesic-Pulse, Recommind Decisiv Enterprise Search, 9 Dots

TEAM

Intranet project leadership: Tom Baldwin, Chief Information Officer; Mitchell Wallsh, Director of Special Projects; Jeannine Zito, Senior Manager of Reporting, Projects & Initiatives; Robert Robertson, Director of Strategic Business Development; John Kruse, Director of Knowledge Management; Brian Lacy, Associate Director of Business Application Services; Mark Fellin, Marketing Content and Communications Manager

Intranet development: Erez Parag, Web Development Manager; Eyal Guy, Web Developer; Joseph Sims, Senior SharePoint Developer; Justin Tullo, Knowledge Management Analyst; Devendra Nayee, SharePoint Developer; Roxana Martinez, Senior Business Analyst

Dashboard development: Albert Chan, Senior Manager of Application Services; Delroy Miller, Senior Financial Systems Engineer

Business sponsors: The intranet project was developed in concert with a strategic initiative focusing on knowledge management, and was supported by the internal team of lawyers and professionals dedicated to the initiative (known as the "Knowledge Management Initiative Team"). The team's proposals were endorsed and supported by Cadwalader's Management Committee.

Door3 (design agency): Michael Montecuollo, Director of User Experience & Design; Rick Cornett, Senior User Experience Designer

INTRANET TEAM

Team members shown here (left to right): Sergey Ivanushkin, Justin Tullo, Mark Fellin, Tom Baldwin, Roxana Martinez, John Sullivan, Jeannine Zito, Al Chan, Eyal Guy, Delroy Miller, Devendra Nayee, John Kruse, Bob Robertson, and Brian Lacy.

HIGHLIGHTS ABOUT THIS WINNER

Cadwalader's new intranet, Connect, was inspired by the Knowledge Management Initiative Team, which sought to implement an updated system to improve information sharing and finding. This, combined with a need to enhance the existing intranet to foster collaboration and a sense of community, led to the latest intranet to support Cadwalader, a law firm consisting of 950 users in New York, London, Charlotte, Washington DC, Houston, Beijing, Hong Kong, and Brussels.

The team implemented a series of changes and new site features to enhance knowledge sharing and communication within the organization.

- **Enhanced Search:** The new site consolidates data sources to produce a single point of entry to knowledge resources. This helps the Firm provide more efficient access to available data, which assists it in more efficiently delivering services to clients.
- **Dashboards:** The site includes partner-focused data dashboards. These dashboards pull daily data from the Firm's financial systems to give partners fast and reliable access to information, such as work in progress and accounts receivable data.

- **Facilitating Connections:** An enhanced Firm directory supports connections between colleagues by providing more detailed attorney biographies. Supervising attorneys can aid junior attorneys in building their personal brand by suggesting skills to add to their profiles. Simple features — such as lists of new hires and anniversaries — introduce employees to one another and deepen relationships. Robust features as well as small details all work to create a greater sense of community throughout the Firm's offices.
- **Single Platform:** Regional sites have been consolidated into a single global intranet, supporting users from Houston to Brussels, from London to Beijing. The site supports various languages, including Chinese characters, to allow content to be posted in languages other than English when appropriate.
- **Modern Design:** A cohesive design supports the Firm's branding and helps create a sense of community. The site uses a flat user interface with a clean look and feel, along with just five templates: home, category listing, detail page, content, and search results. This supports a consistent experience across the site.

  The team decided to integrate tools rather than link to them. The Firm directory, search, and dashboards were all integrated into the site to create a seamless and cohesive experience. The Firm's goals moving forward are to have all web-based applications adhere to the design guidelines and be accessible through Connect whenever possible.
- **New Technology and New Processes:** Due to the use of new technologies and a tight time frame, the team employed a lean development process. The team created a minimum viable product (MVP), inclusive of all key components, and was able to work iteratively and make changes based on real data from real users on a real interface.

BACKGROUND

Through the work of the Knowledge Management Initiative Team, a dedicated team made up of Cadwalader lawyers and other professionals focused on issues surrounding knowledge management, the Firm identified the need to design and implement a knowledge management system to improve information efficiencies in connection with the Firm's client business development, internal communication, and, ultimately, delivery of legal services. It was contemplated that the system would include the ability to search information and expertise across separate databases and management information systems in a seamless manner. At the same time, the Firm was also having conversations around ways to enhance its existing intranet by updating it with a new, state-of-the-art intranet platform that would contribute to the Firm's efforts to foster collaboration and develop an enhanced sense of a "Cadwalader Community."

Ultimately these goals were addressed through the creation of a new intranet (Connect) that featured a sleek design, along with new and enhanced features to provide users with powerful tools to manage their business, strengthen internal and external relationships, provide more efficient access to data, and assist in more efficiently delivering services to the Firm’s clients.

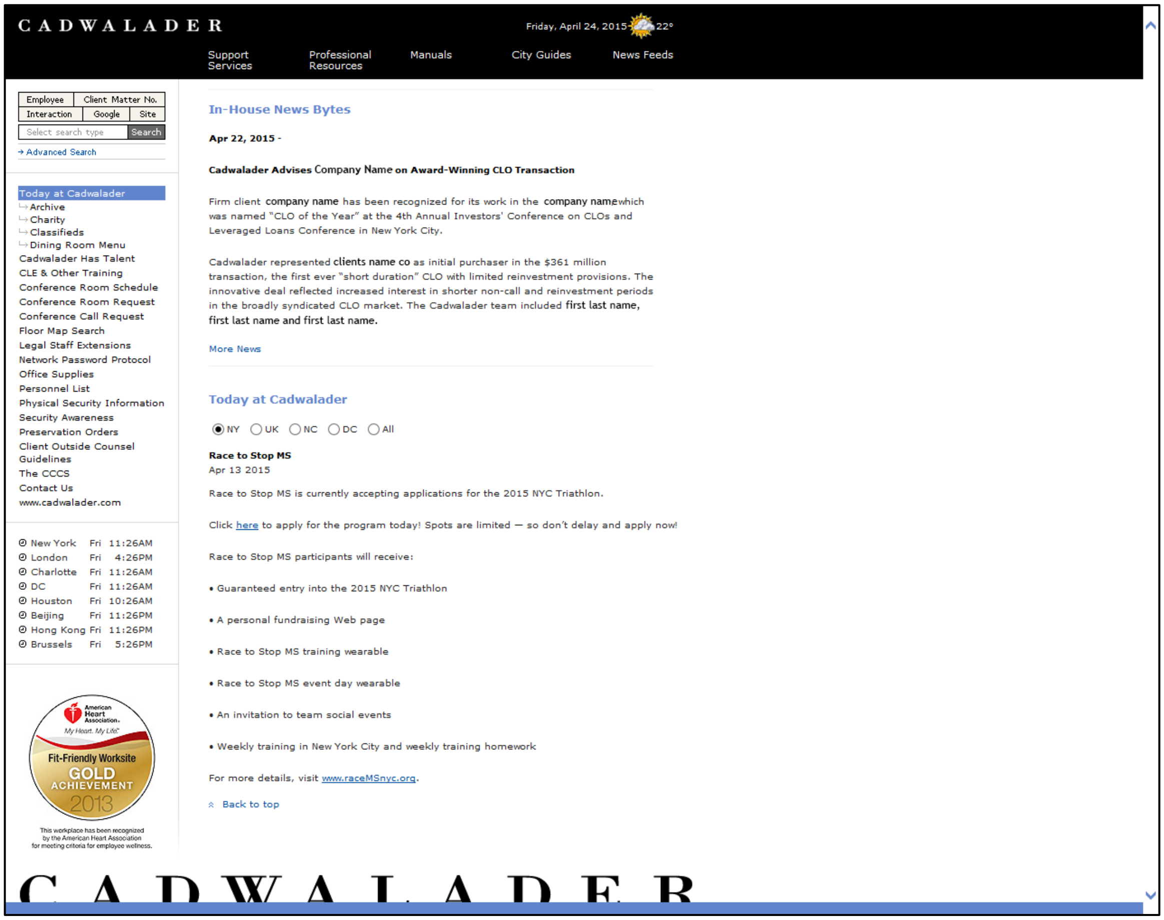


Image 8. Cadwalader, Wickersham & Taft Intranet: Old Intranet Homepage. Prior to the redesign project, this PHP site had been the Cadwalader intranet since approximately 2004. *08_Cadwalader_01_home_version1.png*

Objectives

- **Facilitate a single point of entry to the Firm’s knowledge resources** by creating a seamless and cohesive intranet experience for the Firm’s end users. This approach will drive increased usage of systems within the Firm and help effectively share knowledge of the Firm’s work and expertise.
- **Enable enterprise search** via the Recommind search platform, allowing for faster and better access to institutional knowledge and sources of expertise.

- **Increase awareness of the experience of the Firm's lawyers** by implementing Neudesic's Firm Directory experience management system.
- **Consolidate development platforms** by implementing SharePoint 2013 as the Firm's new standard web development platform. This will also allow implementation of mobile access in the future.
- **Provide users with one global platform**, consolidating independent regional intranets and content from various research tools.
- **Support the Firm's branding and foster a sense of a unified community** by developing a new visual design focused on a simplified flat UI theme and a strategic use of color, design, and layout, and by using that design standard consistently across web assets in the future.

Challenges

The intranet project team made a strategic decision to deliver a minimum viable product within a short time frame so they could iteratively enhance the system based on user feedback. This approach meant that team members had to be more disciplined in development cycles to mitigate scope creep, but it enabled them to launch the product faster and iterate more quickly.

The intranet project was executed during a time when the Firm's IT department was implementing processes and software development methods that were new to the organization, and the web development team was getting up to speed with the new SharePoint 2013 ecosystem at the same time. Therefore, the intranet project team simultaneously learned the new processes and new technology in order to deliver the new intranet in a timely and efficient manner.

DESIGN REVIEW

Homepage

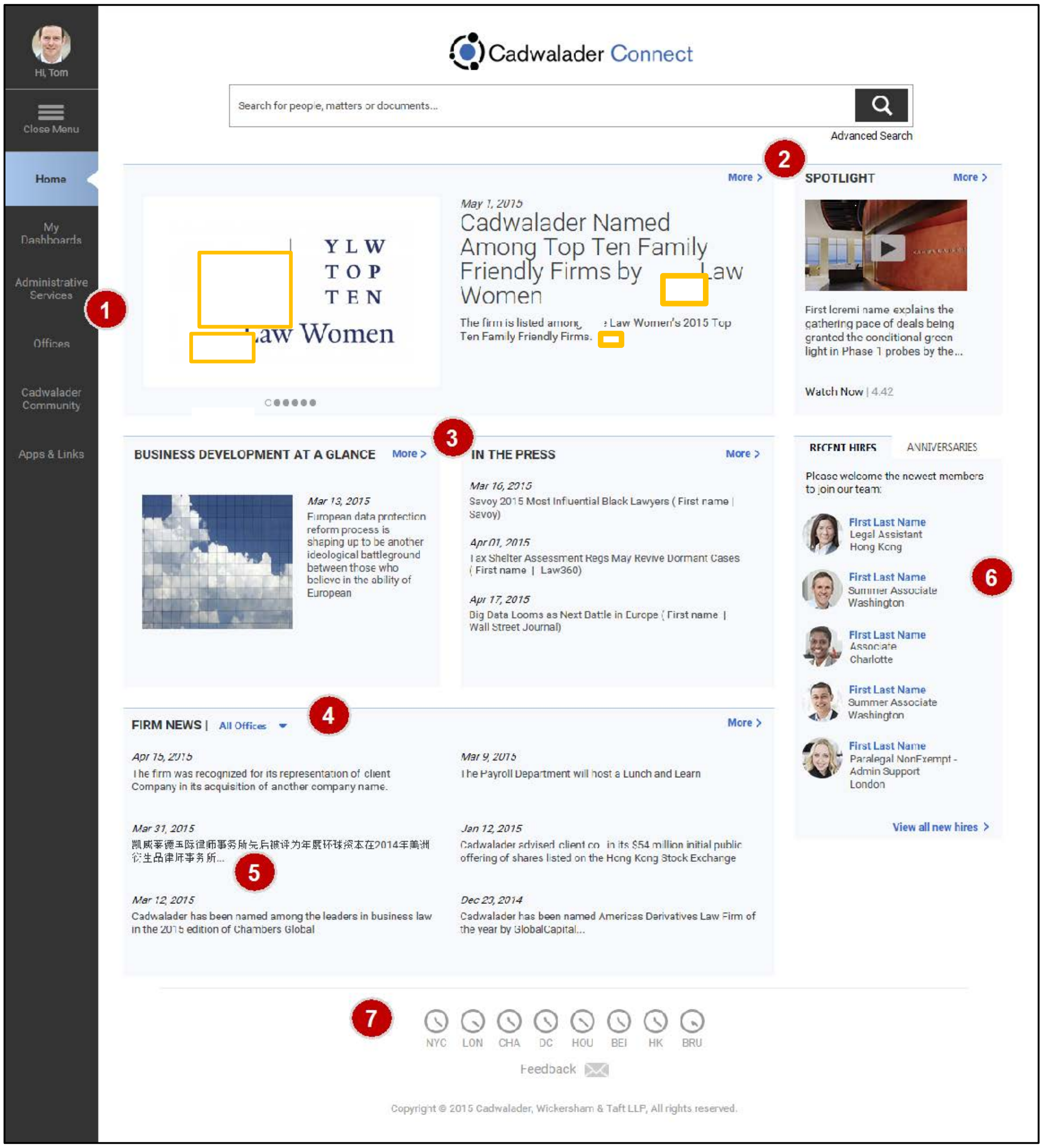


Image 9. Cadwalader, Wickersham & Taft Intranet: Homepage.
09_Cadwalader_02_home_live.png

Homepage Highlights

1. **Navigation:** Each page on the site features the global navigation on the left side of the page. This provides quick access to dashboards; services (such as *Administrative Operations*, *Knowledge Management*, and *Talent Development*); office information; community information (such as alumni, diversity, and pro bono programs); and business tools (including firm manuals, outside counsel guidelines, most commonly used items, and access to applications). A blue highlight and white divot indicate the currently selected page. The addition of *Offices* to the main site navigation is notable. The Firm grew globally after the previous iteration of the site was created. This placement of office information on the top-level navigation makes the global status more apparent, as well as making other locations feel represented on the site.

2. **News:** The homepage features a news carousel at the top of the page, with six featured stories. Each story includes an image, the date it was published, a headline, and a brief summary. Users can also view additional news via the link to *More* in the top right corner of the section.

   Another piece of content is featured in the *Spotlight* section. This area of the site can contain multimedia content, such as a video. Videos are indicated by a "play" arrow on a still from the video as well as a *Watch Now* call to action, which is accompanied by the length of the video. These all clearly indicate that the content is in a video format.

   Each item on the homepage goes through an approval workflow. An administrator reviews and approves the content, and then Business Development and Marketing and Communications vet it before it is posted to the site.

3. **Business Development and *In the Press*:** The *Business Development at a Glance* section keeps users informed of the latest news about the Firm's wins, pitches, and business development activities. This section promotes cross marketing by informing attorneys about client relationships and matters firm-wide.

   In the Press features mentions of Cadwalader and its attorneys in the media, with the date the item was mentioned, the names of attorneys mentioned in the story, and the source.

4. ***Firm News*:** *Firm News* defaults to showing content from all offices across the Firm. Users can also easily and clearly select which specific office they are interested in via the *Offices* menu next to the section heading. As with the news in the carousel, items are clearly dated, with the name of the month abbreviated or spelled out. This is particularly helpful for international staff members, who might be confused if numerals rather than words are used in dates (for example, "2/5" is read as "February 5" in the US and "May 2" in Europe). Each news item also includes a brief summary.

5. **Support for Multiple Languages:** The site supports multiple languages, including Chinese characters, making it inclusive for users around the world.
6. **Recent Hires:** One of the goals of the site was to help make connections across the Firm. The site supports this goal in many ways, including listing recent hires and employees with anniversaries on the homepage of the site, together with a photograph. Such seemingly simple features can go a long way to building a sense of community and inclusiveness in an organization. Even seeing an image and associating a name with a face can facilitate a connection.
7. **World Clocks:** The bottom of each page on the site features a set of world clocks, with the current time displayed for each of the Firm's eight main offices. This also helps with inclusion on the site, as every office sees itself represented, even in a very simple way, on the site. This also serves the practical purpose of giving users a quick way to translate time zones.

Search

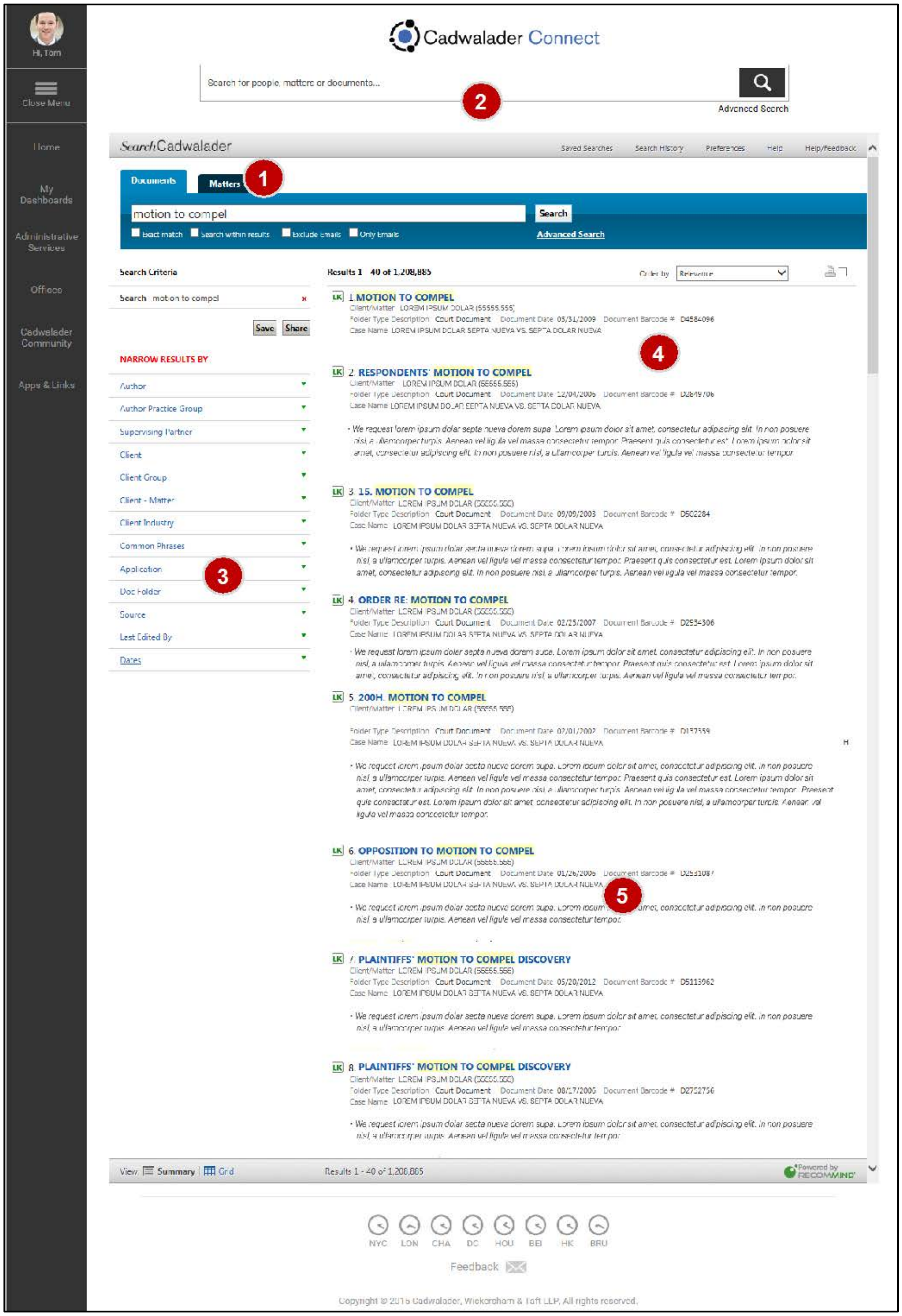


Image 10. Cadwalader, Wickersham & Taft Intranet: Search Results.
10_Cadwalader_03_MatterResults_live.png

Search Highlights

1. **Enterprise Search:** The new site offers users enterprise search for the first time. The Firm needed a way to search work product, available client matter information, and expertise across database and management information systems. It selected the Recommind search platform, which is tuned to the needs of the legal market, as well as Microsoft FAST to crawl content on SharePoint. This feature has received rave reviews from users, who love the ability to search internal records across knowledge sources in a single intranet interface.
2. **Simple Search Interface:** The search bar is literally front and center in the design. The large search box allows enough space for complex queries. Filler text indicates the types of searches the tool supports (people, matters, and documents). The size and prominence of the search box is no accident; it was designed to draw attention to the newly enhanced tool. The employee search was already popular in the previous design, which influenced the prominent placement in the new design, but the true impetus was to put search up front, demonstrating that it had far greater capabilities than in the past.
3. **Filters:** Users have a wide variety of facets from which to select, including author, author practice group, supervising partner, client, client group, client matter, client industry, common phrases, application, document folder, source, last edited by, and dates.
4. **Confidentiality:** A key concern in a law firm setting is the confidentiality of information. The team needed to ensure along the way that the appropriate data protections and confidentiality rules were in place. This was necessary to restrict the delivery of results to those users without authorization.
5. **Results Details:** Results include not just the name and a brief description, but also some details about the result. For instance, matter results return the client/matter number and name, the folder type (such as court document), the document date and barcode, and the case name. This gives users additional information to determine directly from the results page if they have found the right piece of information.

Firm Directory Results

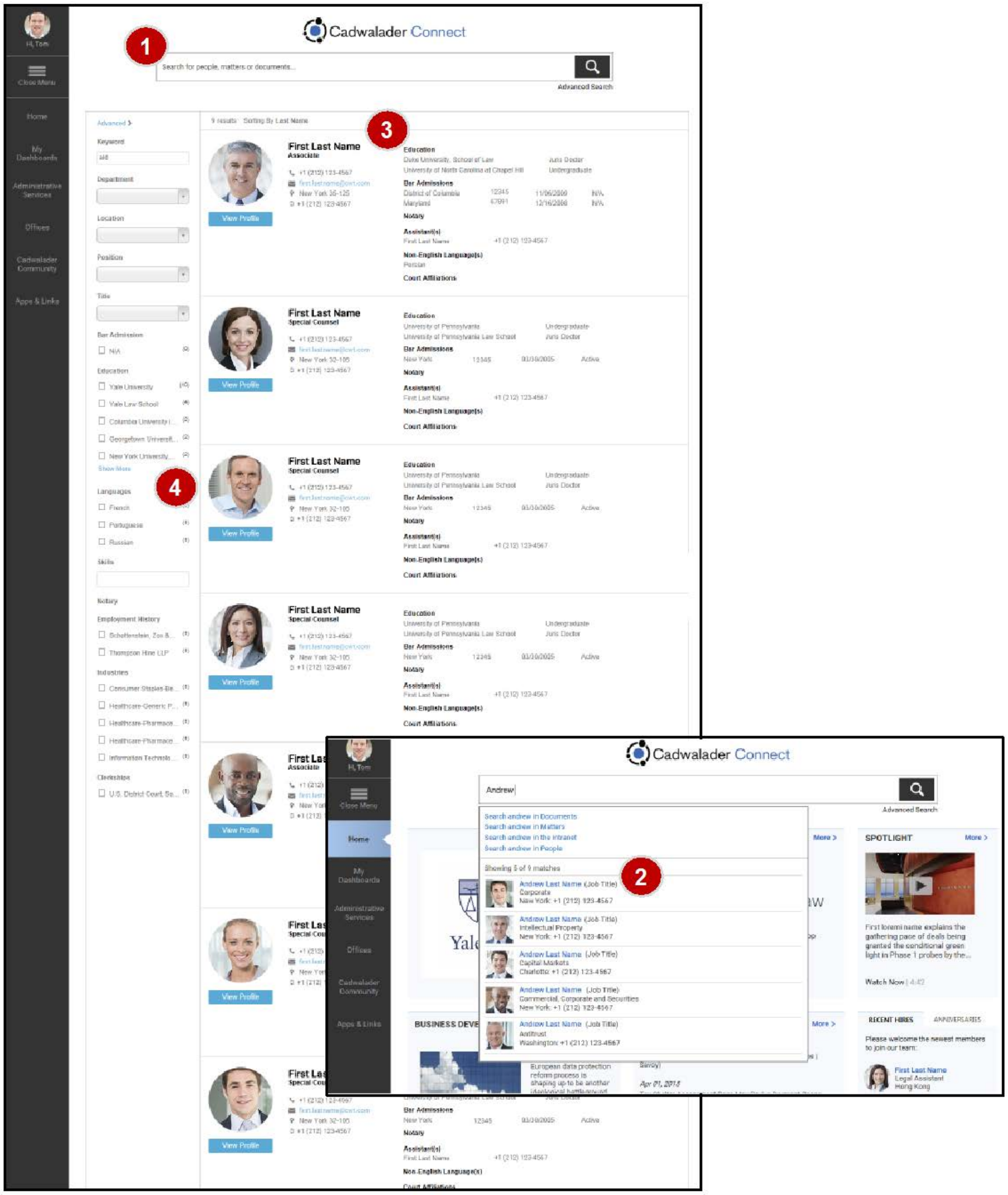


Image 11. Cadwalader, Wickersham & Taft Intranet: Firm Directory Search Results. *11a_Cadwalader_04a_PeopleResults_live.png* and *11b_Cadwalader_04b_Search_live.png*

Firm Directory Results

1. **Simple Search:** The site makes it easy to quickly find the employee of interest. Users can search for employees directly in the main site search box. This is shown clearly via the filler text in the box: *Search for people, matters or documents*.
2. **Type Ahead, Quick People Search:** Results appear as users type. The results that appear contain the employee's image, name, job title, division, office location, and contact phone number. This allows users to get the information they need without having to click into the full profile.
3. **Profile Details:** If users navigate to the full results page, robust profile information appears. The employee's photo, name, title, contact information, education, bar admissions, notary status, assistant information, non-English languages, and court affiliations are all clearly visible without even having to enter the employee's full profile. The page design is simple and clean, making it very easy to scan results and find the desired person.
4. **Filters:** Filters on the side of the page allow further refinement of the results. They allow keyword searches as well as filtering by department, location, position, title, bar admission, education, languages, skills employment history, industries, and clerkships. Each filter is listed with the number of matching results, helping users determine which filters to use to effectively get the results they need. For filters with many different categories, such as education, the most common categories are listed first, with a link to *Show More*. This lets users quickly scan the column of filters to see what options are available.

Firm Directory Profiles

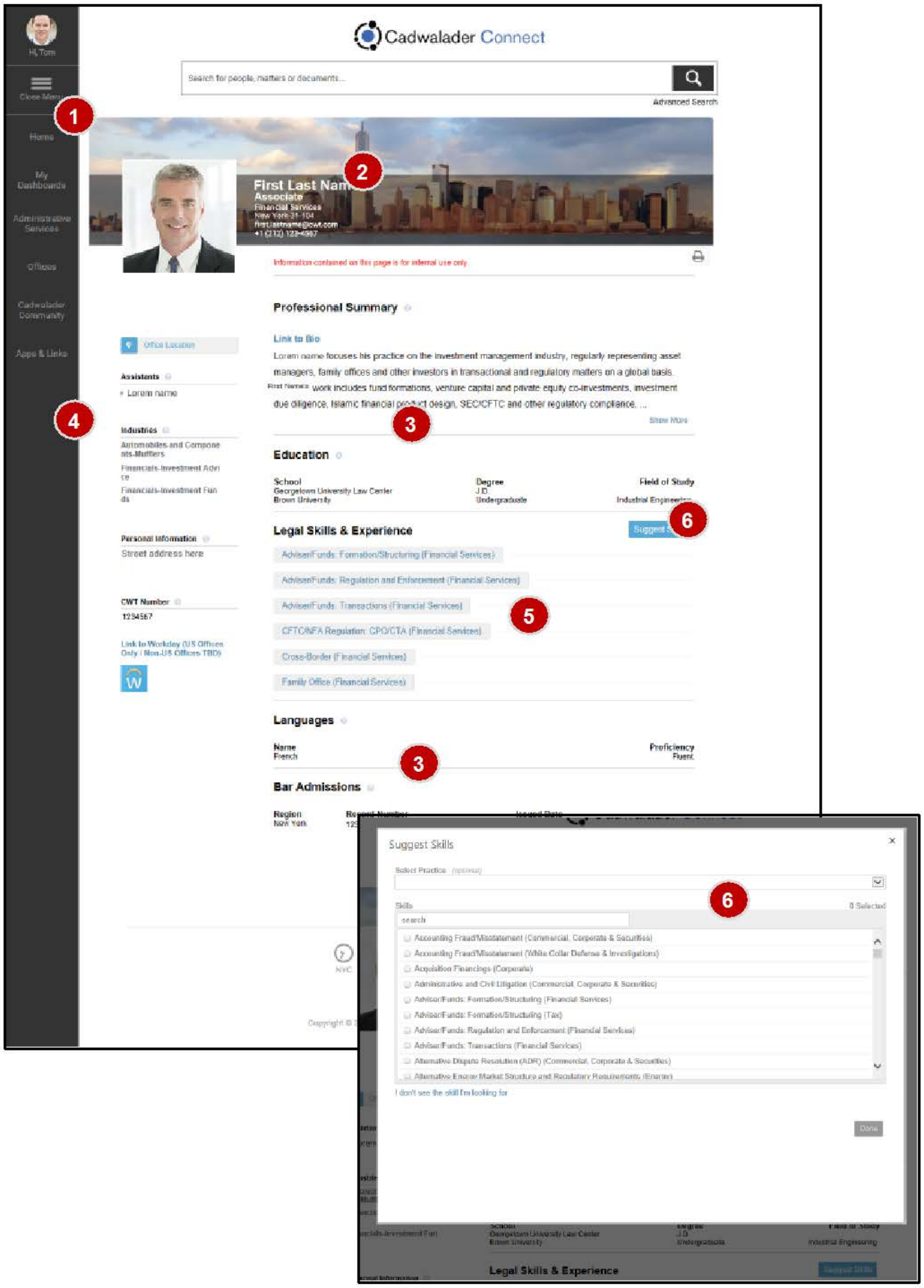


Image 12. Cadwalader, Wickersham & Taft Intranet: Firm Directory and Skills Suggestions. *12a_Cadwalader_05a_EmployeeProfile_live.png* and *12b_Cadwalader_05b_SuggestedSkills.png*

Firm Directory Profiles Highlights

1. **Focused on Law:** The Firm directory is built on Neudesic's Experience Management System, which collects and displays the Firm attorneys' experience and legal skills.
2. **Contact Information:** Each profile shows the employee's picture along with his or her basic contact information at the top of the page. An iconic image shows the office location of the employee as well.
3. **Background Details:** The body of the page includes a brief professional summary, followed by education information. The bottom of the page provides information on languages spoken, as well as the proficiency level in those languages, and bar admissions.
4. **Additional Details:** The side of the page provides the details about assistants and industries the attorney works in, as well as an option to include personal information. Industry information is clickable and leads to a list of employees who work in that area.
5. **Skills:** Attorneys enter their own skills and experience in the directory and are encouraged to contribute to their profiles, following a set of professional guidelines. Business Development created the taxonomy of skills, working closely with each practice group to ensure the choices covered the appropriate breadth and specificity of knowledge in each group. This helps ease use of this tool, because attorneys immediately see the right subset of skills for their area.
6. **Suggest Skills:** Supervising attorneys can suggest skills for junior attorneys' profiles, which also helps make profiles more robust and complete. Any suggestions are reviewed by both the attorney and the practice group leader before being added to the profile.

Partner Dashboards

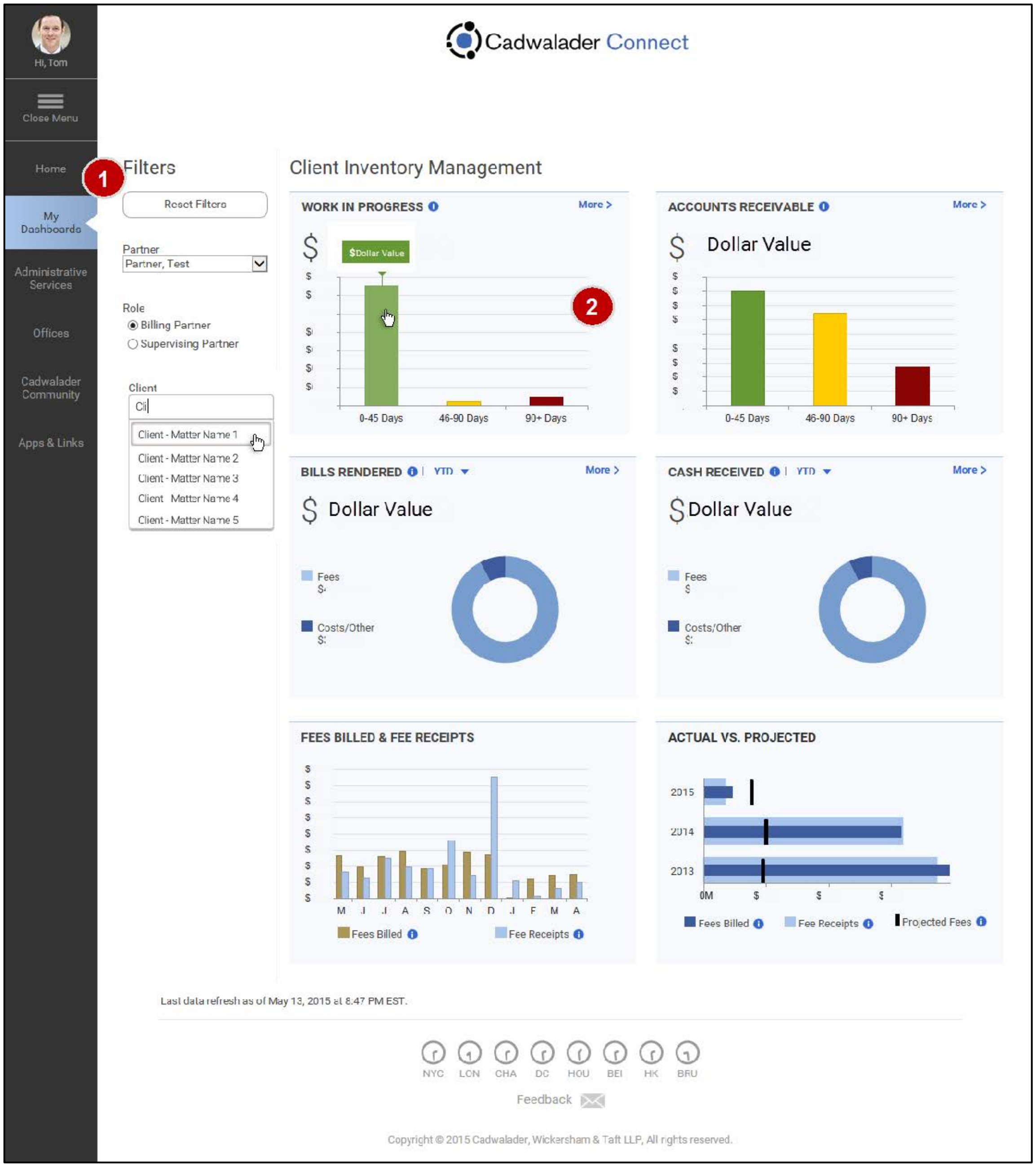


Image 13. Cadwalader, Wickersham & Taft Intranet: Partner Dashboards. *13_Cadwalader_06_DashboardInventory_live.png*

Partner Dashboards Highlights

1. **New Feature:** Partner dashboards are a new site feature meant to give partners ready access to current information about client accounts and activity on ongoing matters. The information is updated nightly and pulled from the Firm's financial platform.

   This is a great example of understanding the needs of a particular organization when designing an intranet. Although many intranets are quite similar in providing HR information or employee profiles, where intranets can really excel is in supporting their particular employees and the work that they do.

   In this case, it is essential that partners are aware of client billing, receipts, and progress.

2. **Visualizing Results and Progress:** Team members crafted eight personas as part of the partner dashboard project, through interviewing stakeholders and mapping the organizational structure of the Firm. They used this data to determine which summary level information was most important. From there, they sketched and diagrammed data charts and determined which users had permissions to see which sets, and which filters would be available to each role to manipulate the data.

3. **Filters:** Tools on the side of the page allow viewers to view by partner, role, client, or matter name.

Content Pages

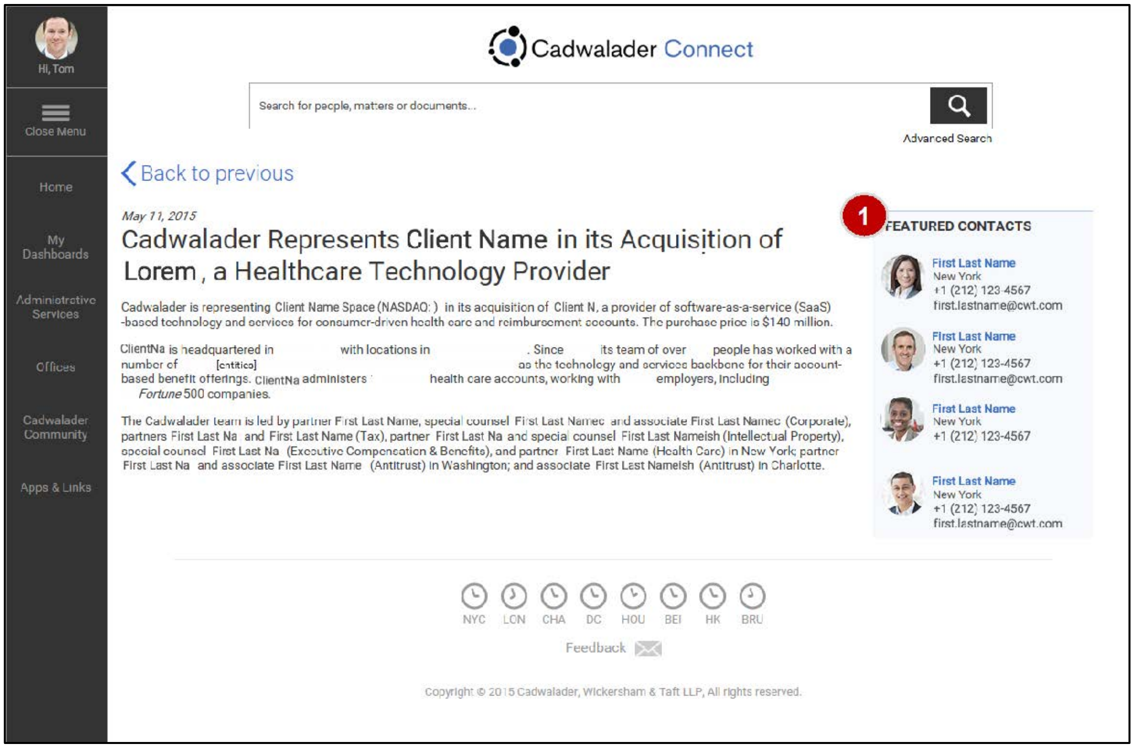


Image 14. Cadwalader, Wickersham & Taft Intranet: Content Page.
14_Cadwalader_07_Article_live.png

Content Page Highlights

1. **Supporting Connections:** Even content pages work to connect employees to one another. For any news item on the site, anyone featured in the article is also listed on the side of the page. This further facilitates connections throughout the organization, as seeing more details about a featured person are just a click away. By presenting the contact information on the same page as the story, rather than simply linking the name in the story's text to the profile, the reader can connect a face to a name.

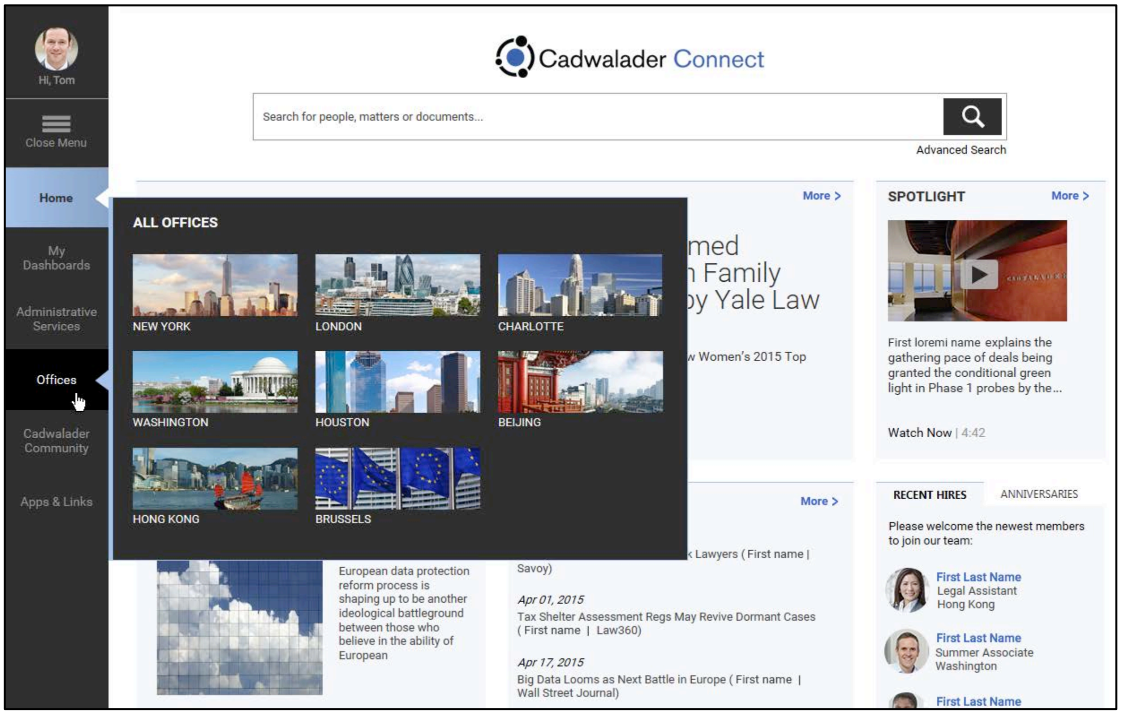


Image 15. Cadwalader, Wickersham & Taft Intranet: Megamenu. An example of the megamenu navigation on the Cadwalader intranet, where office images appear on hover. *15_Cadwalader_08_Navigation_live.png*

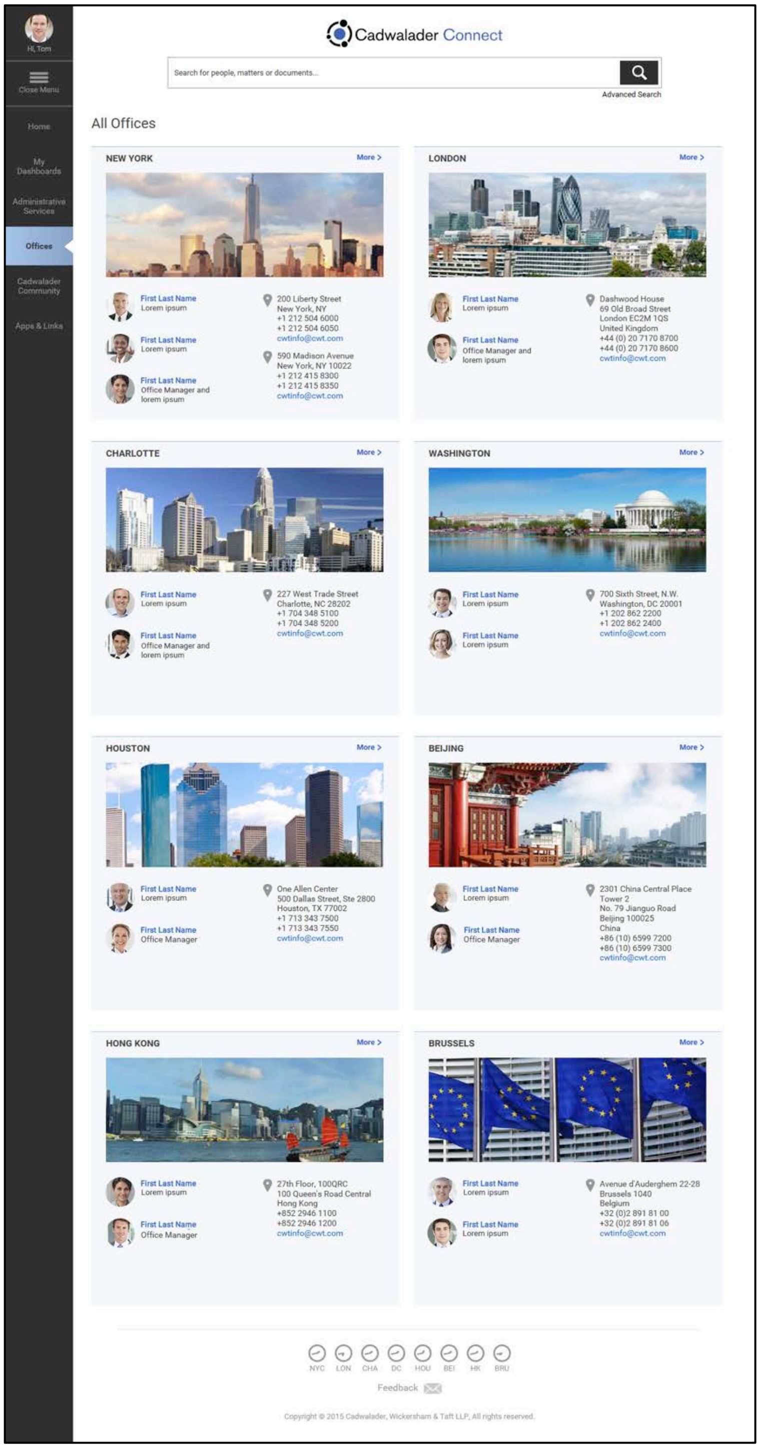


Image 16. Cadwalader, Wickersham & Taft Intranet: Office Landing Page. Landing page for all Cadwalader offices, with quick links to key office contacts, address information, and navigation.
16_Cadwalader_09_OfficeLanding_live.png

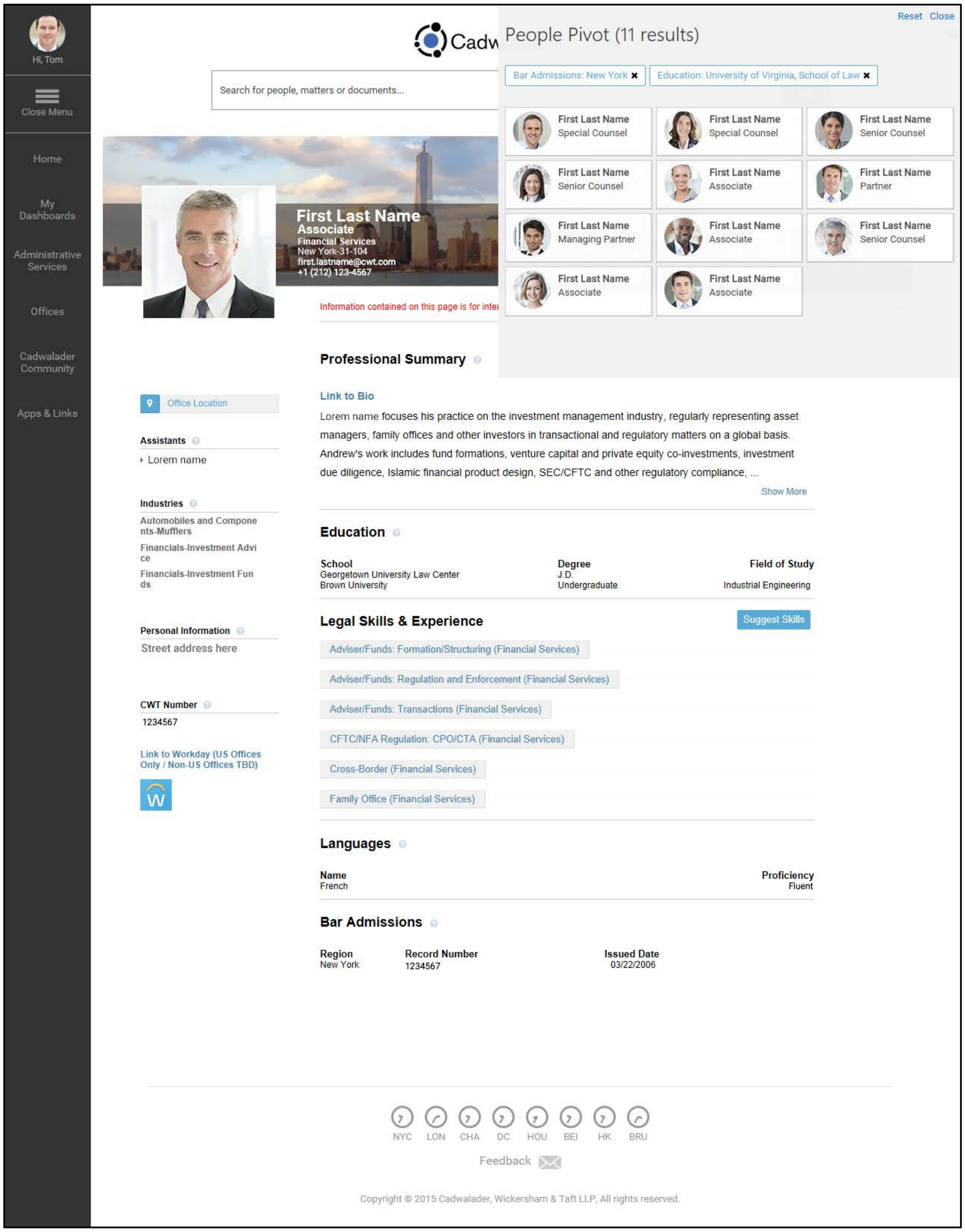


Image 17. Cadwalader, Wickersham & Taft Intranet: People Pivot.
Visual filtering capability within the Firm directory.
17_Cadwalader_10_Firm_Directory_People Pivot.png

DESIGN PROCESS AND USABILITY WORK

The work of the intranet project team focused on three major efforts, with the focus of each being to improve the user experience:

- **Overhaul design:** Redesign, refurbish, and update the entire intranet.
- **Improve search:** Develop an enterprise search function that would make the Firm's knowledgebase more easily accessible to all users from a single entry point.
- **Develop partner dashboards:** Create, design, and integrate the partner dashboards, which were to be a major new feature for the Firm's partners.

Research Approach

With these goals in mind, the team began working with Door3 to accomplish a series of activities that would help them achieve these objectives. These activities included:

- **Field studies:** Door3 interviewed stakeholders to obtain high-level feedback and direction. During these sessions, stakeholders discussed their intranet experiences and the team gathered feedback on how to improve it.
- **Usage stats and server logs:** The Door3 design team leveraged the Cadwalader IT team's knowledge of site traffic patterns and popularity of content and pages in order to help them make informed decisions about pages and content to update, delete, or create on the new intranet.
- **Expert reviews:** The Door3 design team reviewed the existing intranet to identify both its strengths and challenges, specifically focusing on the user experience.
- **Other companies' intranets:** The internal design team met with Cadwalader stakeholders and reviewed a range of existing intranet designs available via books, reports, and the 2014 NN/g Intranet Design Annual. The team discussed usability, design, and architecture and obtained Door3's views on what worked well (and did not work well).
- **Content requirements and design:** Cadwalader provided business requirements to the Door3 design team, which then reviewed and identified content that should be carried over to the new intranet. Door3 sketched low-fidelity diagrams to illustrate and document the content that should be retained, deleted, or created.
- **User persona workshop:** The internal team reviewed the eight personas created during the partner dashboard design phase (see below) to make sure they were still accurate and to see if there were any other personas that needed to be taken into account for the intranet redesign. Then the team reviewed the various technologies to be employed with the development team.

Image 18. Cadwalader, Wickersham & Taft Intranet: Homepage Wireframe. High-fidelity wireframe of the new intranet homepage. *18_Cadwalader_11_IntranetWireframe.png*

Designing Search

The intranet project team worked with the Firm's Knowledge Management Initiative Team to develop the enterprise search capability. Together, the two teams accomplished the following:

- **Scoped out the desired functionality**, including the internal data sources to be included, the ways in which those sources would be accessed and indexed, and how results would be presented.
- **Ensured that appropriate data protection and confidentiality** would be maintained for data sources indexed and made available through enterprise search. This ensured the appropriate level of protection for data subject to client or third-party confidentiality restrictions as well as for the Firm's internal confidential data.
- **Investigated, tested, and compared various search engine technologies** in order to determine the best functionality and fit for the intended purpose.
- **Implemented the enterprise search** based upon the Recommind search engine.

Designing the Partner Dashboards

For the development of the partner dashboards, the Dashboard Project Team set aside two weeks of discovery workshops to accomplish the following design activities:

- **User persona workshop:** The partner dashboards were to be permission-based, with different levels of role-based viewing. The Dashboard Project Team mapped the entire organizational structure, departments, and practice groups and identified eight distinct personas representing all of the user types.
- **Stakeholder interviews:** The Dashboard Project Team interviewed stakeholders to better understand and identify what summary-level data would be most important for users to review and use.
- **Iterative design sketches:** The Dashboard Project Team collaboratively sketched and diagrammed during a series of workshops. This process helped team members figure out how the data was going to be visualized as charts, where users could see what sets of data and filters would be available within each role so they could manipulate that data.
- **Wireframes:** After the research was complete, Door3 created low-fidelity wireframes to help begin to give structure to the partner dashboard design and worked through several wireframe iterations.
- **Visual design:** Once the wireframes had reached a high level of fidelity, Door3 moved into the visual design phase by adding color coding to the data and finalizing the overall look and feel of the design.

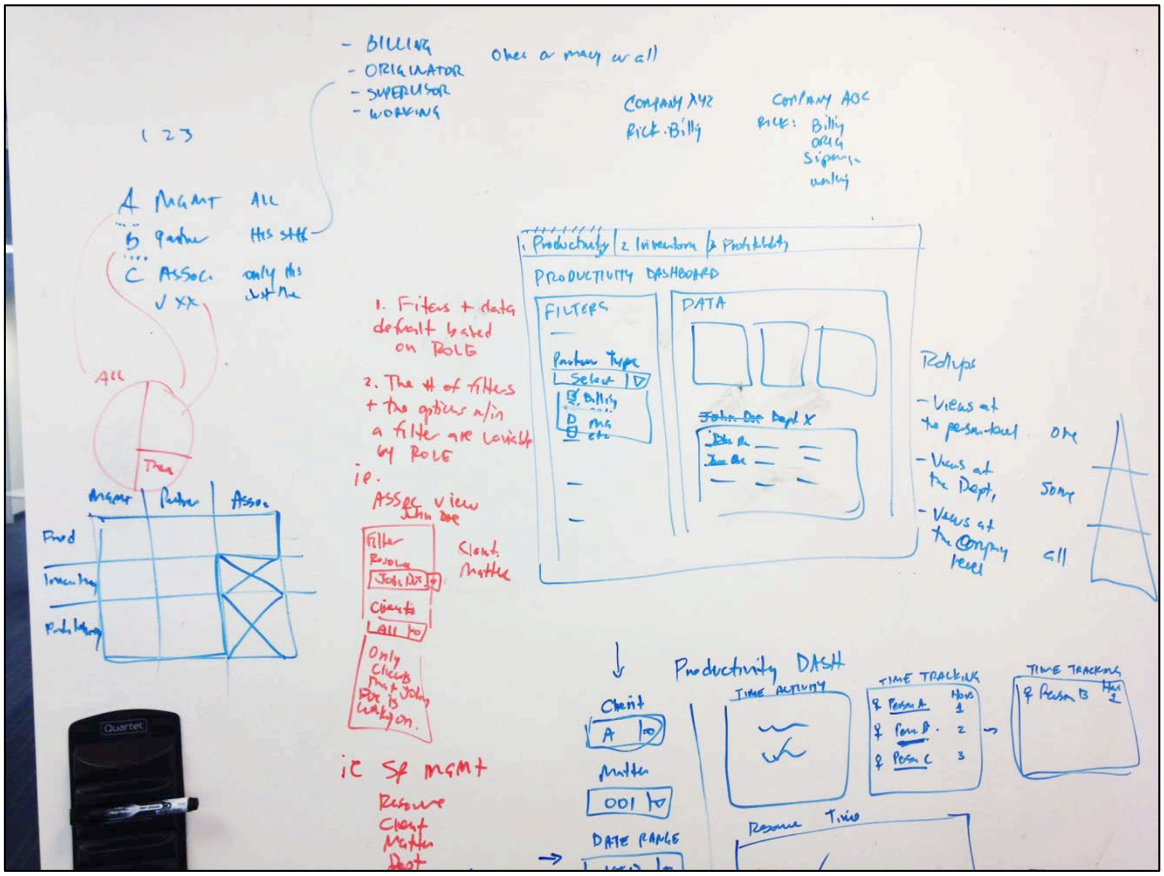


Image 19. Cadwalader, Wickersham & Taft Intranet: Whiteboard Session. This helped the team figure out the structure of the partner dashboards, which are a key part of the intranet.
19_Cadwalader_12_BIDashboardSketch.png

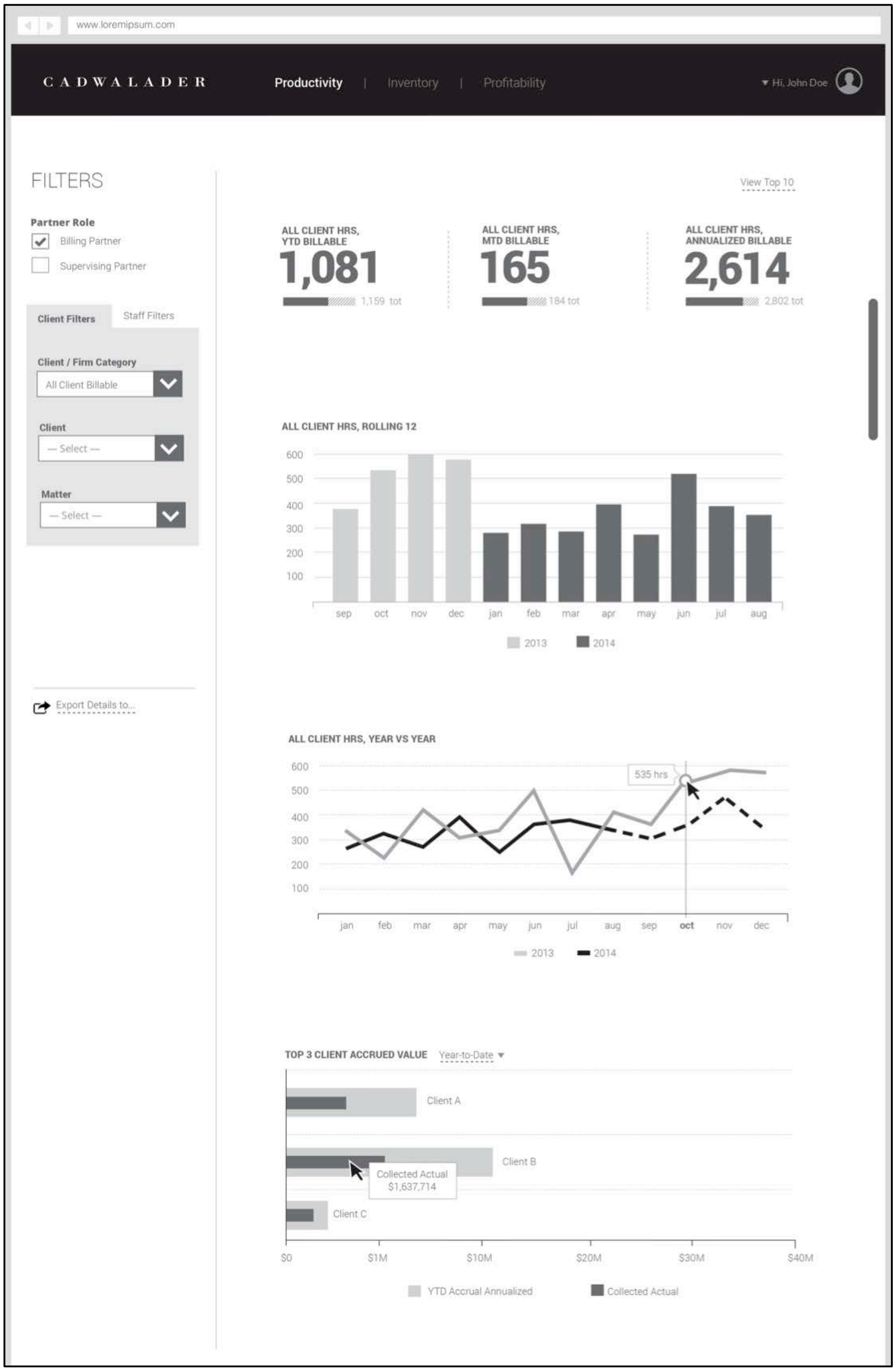


Image 20. Cadwalader, Wickersham & Taft Intranet: Early Wireframe.
This early wireframe of the partner dashboard shows work value data.
20_Cadwalader_13_BIWireframe.png

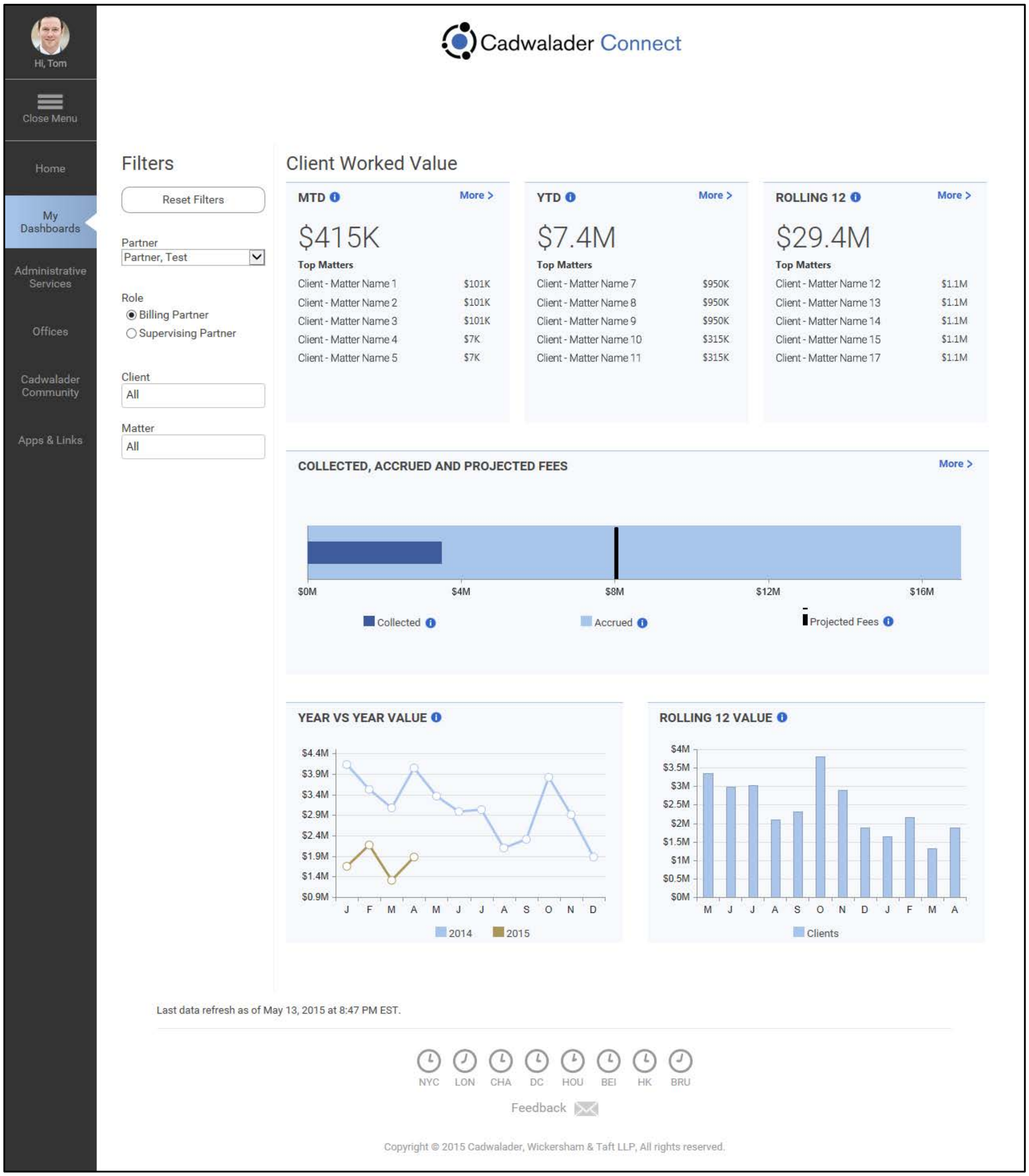


Image 21. Cadwalader, Wickersham & Taft Intranet: Partner Dashboard. The partner dashboard lets Cadwalader partners view up-to-date information on clients and matters.
21_Cadwalader_14_DashboardValue_live.png

Designing the Information Architecture

IA was an important consideration for the design team, and thus one of the goals of the project was to restructure the IA with a focus on connectivity and interactivity. The need to develop and integrate Recommind as the enterprise search engine as well as the new partner dashboard functionality created some unique challenges; however, the team rose to the occasion. Some of the problems solved with the IA include:

- **Cross-reference documents and people:** One of the primary knowledge management objectives that the design set out to accomplish was to give Cadwalader employees immediate access to the available documents, matters, and resources, cross-referenced if needed, within the Firm's systems. In order to improve findability, a decision was made to prioritize and emphasize the search bar in the most prominent way possible. From there, users could quickly search, in a number of combinations, for people, matters, or documents. An advanced search feature was also developed and the existing people finder capabilities were also greatly expanded, allowing users to quickly find colleagues and then click into their profiles to view an expanded description of their background skills and experience.
- **Protect confidentiality:** At the same time, bearing in mind the sensitivity of information included in the various systems, it was vitally important to ensure that appropriate confidentiality restrictions would be enforced. Out of necessity, this required the ability to restrict the delivery of search results to some users when they are not authorized to view all of the information that is otherwise responsive to their searches.
- **Simplify architecture:** The design team was also able to structure the entire intranet on just five templates (home, category landing, detail page, content, and search results/search drop-down). By reducing the number of page templates, the site provides a consistent experience regardless of the page on which users land. Megamenus were utilized so that users are able to get a sense of the depth of content sections quickly and easily. The menus open on hover, and the team relabeled all sections so that they are clear and consistent with how the various Firm departments and practices speak about and understand the structure of the Firm. The Firm had also continued to expand globally since the previous intranet was developed, opening additional offices overseas, so the new intranet needed to reflect these new offices and also provide a sense of the global community. From within the megamenu, users can visually see a reflection of these offices, their resources, and their people.

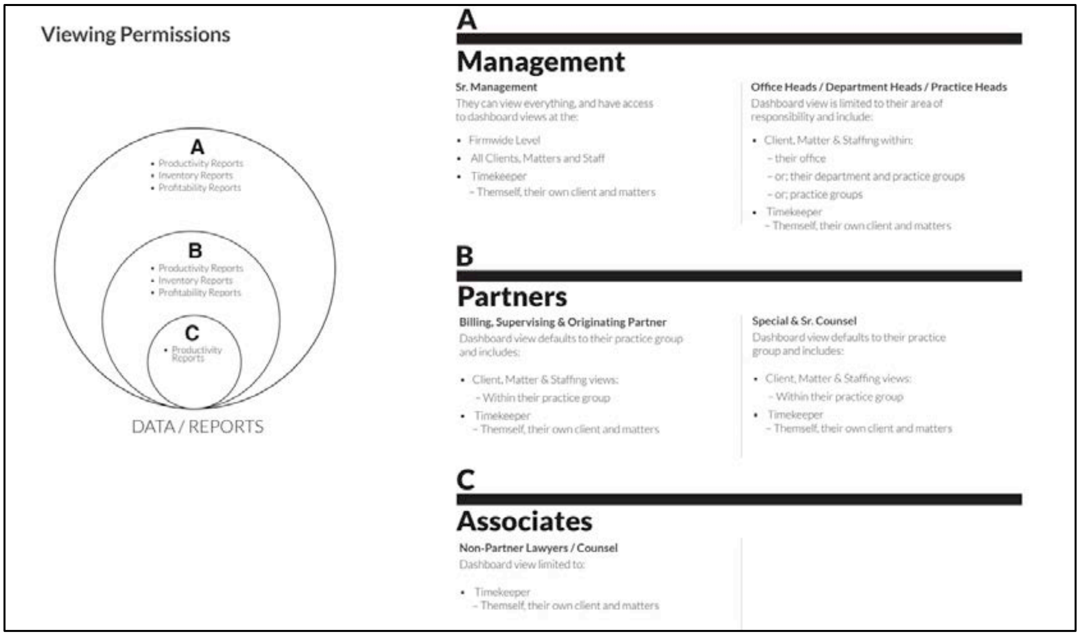


Image 22. Cadwalader, Wickersham & Taft Intranet: Permissions Diagram. This diagram was used to illustrate role-based viewing permissions across the Firm. *22_Cadwalader_15_PermissionsDiagram.png*

IA Design Process

The IA design process, like other aspects of the intranet design project, consisted of iterative user-based methods aimed at achieving the best possible design to meet the project goals. These included:

- **Collaborative sketch sessions:** Based on the discovery research, the project team compiled enough information to collaboratively sketch out potential intranet architectures. With various Cadwalader stakeholders present, Door3 was able to take into account the outside applications that needed to be folded into the process, including partner dashboards, existing content, and any new content that needed to be created.
- **Sitemap:** With a loose architecture sketched out, Door3 created a more formal sitemap that expressed the intranet's new organization. This was presented and iterated against until agreement was reached on a final structure.
- **Wireframes:** With the architecture in place, Door3 drew five primary templates that could accommodate content across the site. The agency then began the process of developing high-fidelity wireframes for the identified pages, iterating to the point of the highest fidelity wireframe.
- **Visual design:** Once the wireframes reached a high level of fidelity, the team moved into visual design stage to create the overall look and feel of the site.

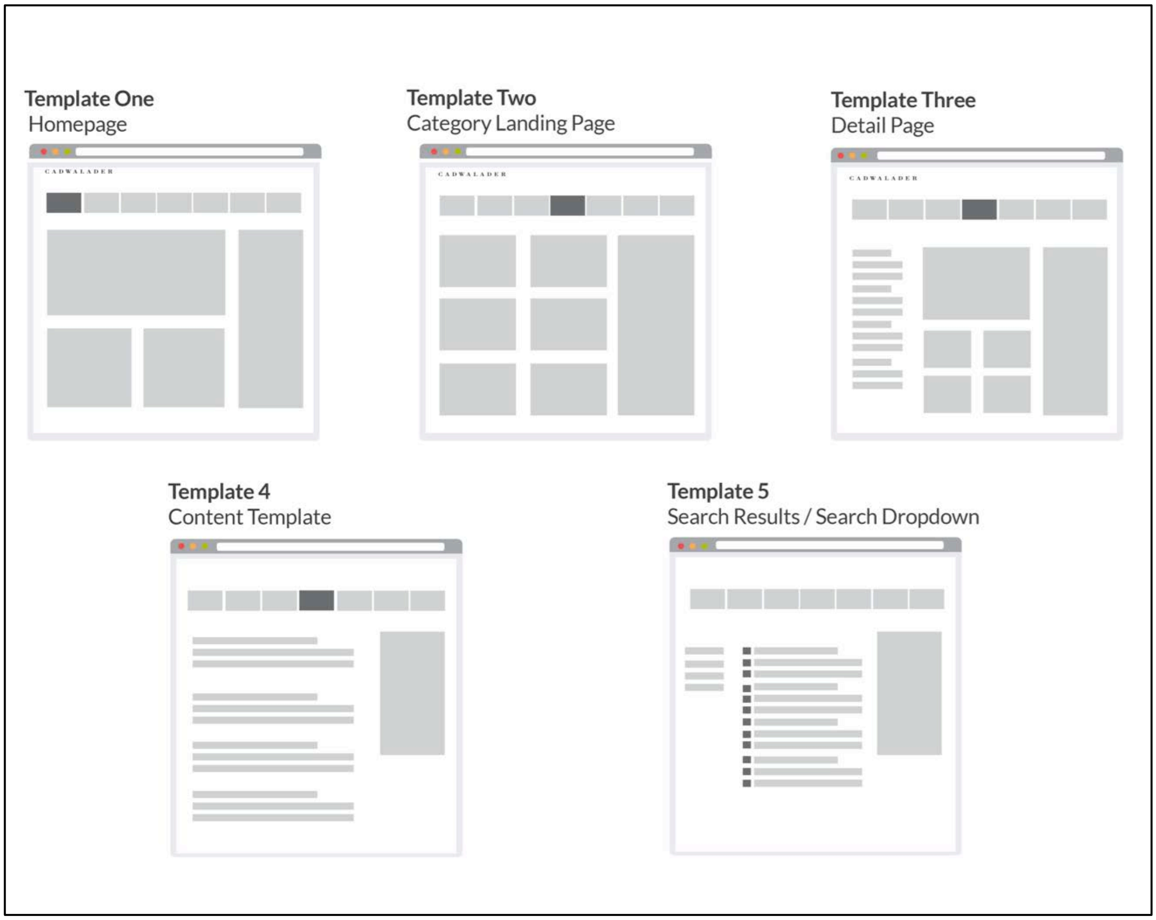


Image 23. Cadwalader, Wickersham & Taft Intranet: Primary Page Templates. The layout of the low-fi wireframes that defined the intranet’s five primary page templates. *23_Cadwalader_16_PageTemplates.png*

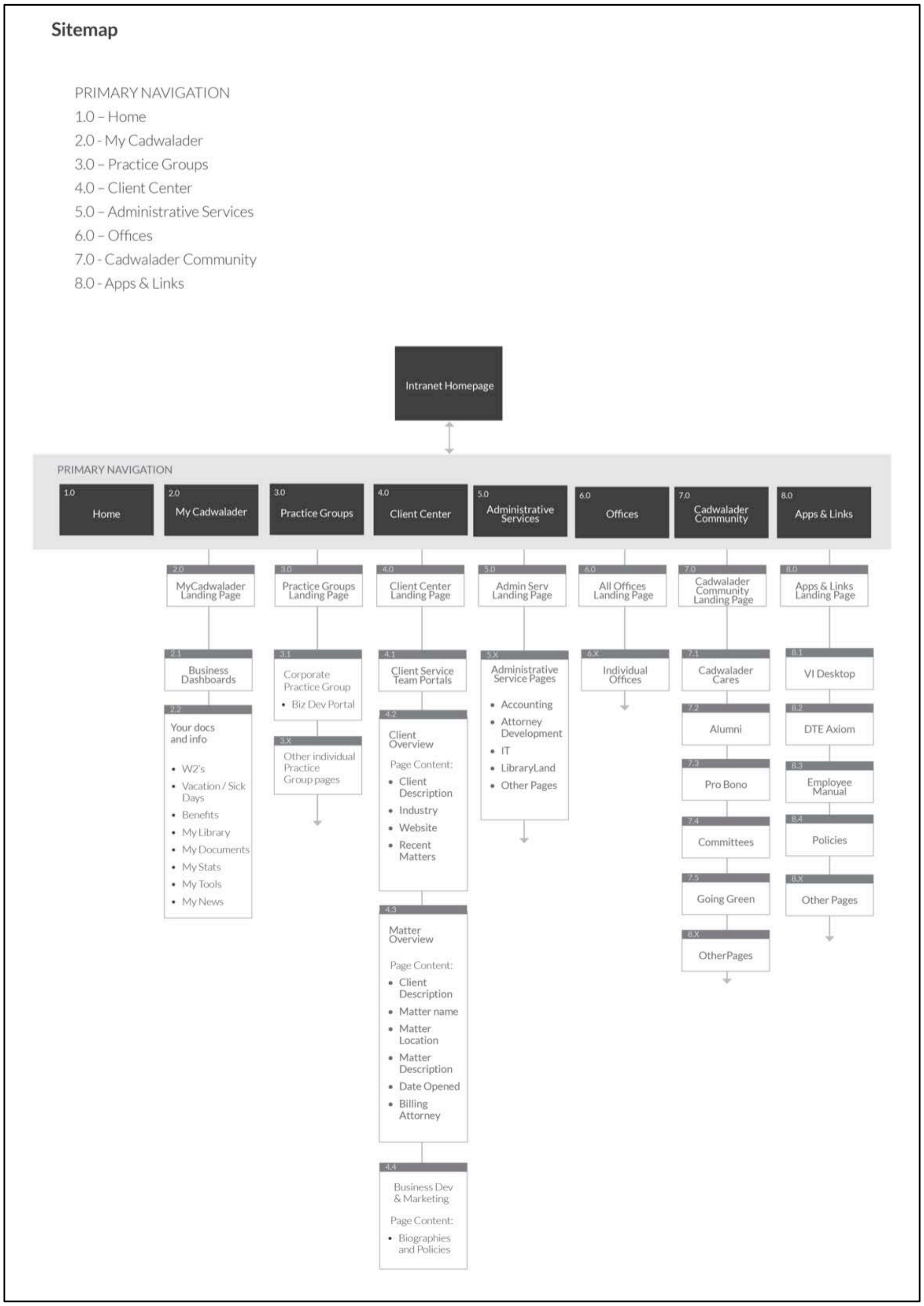


Image 24. Cadwalader, Wickersham & Taft Intranet: Sitemap. A proposed work-in-progress sitemap showing the potential high-level architecture of the new intranet. *24_Cadwalader_17_IntranetSitemap.png*

Adoption and Buy-In

The project team wanted a way to ensure that the Firm's users were focused on what was new about Connect. In order to accomplish that, team members implemented a self-guided walkthrough using a jQuery plug-in tool that let them take control of how people interact with Connect. They also launched an internal marketing campaign that included internal communications, signage, open houses, group meetings, and one-on-one training sessions.

On an ongoing basis, the Firm uses this tool to highlight new functionality as it is rolled out and maximize awareness of new features.

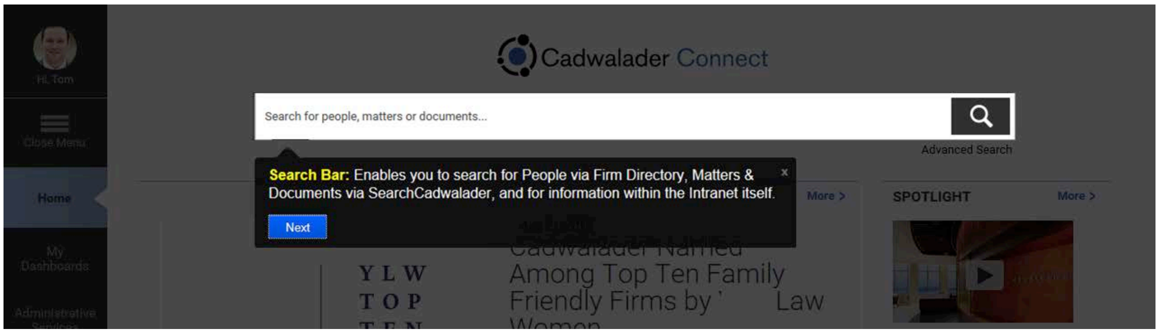


Image 25. Cadwalader, Wickersham & Taft Intranet: Self-Guided Walkthrough: This image and the one below illustrate how the team uses a jQuery tool to provide interactive walkthroughs, which are used to highlight new features of Connect. *25_Cadwalader_18_JoyRideSearch.png*

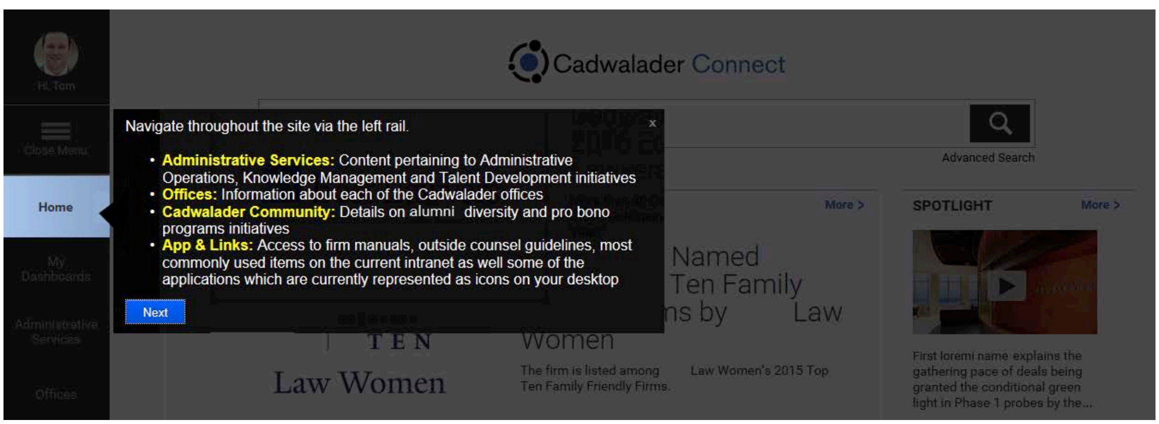


Image 26. Cadwalader, Wickersham & Taft Intranet: Self-Guided Walkthrough. The Cadwalader intranet provides self-guided feature walkthroughs to highlight new features on Connect. *26_Cadwalader_19_JoyRideNavigation.png*

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
door3 A user experience design and research consultancy	• Designed the user interface, dashboard, and IA • Conducted workshops, interviews, sketching and wireframing exercises, and card sorting exercises
DBI Strategies A professional services firm	• Provided resources for business analysis and requirements documentation, and QA testing

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://connect.cwt.com/
Default Status	• Connect is the default homepage for all users, and they are able to change the default homepage if desired.
Remote Access	• Users are able to access Connect once they are connected to the network; this can be accomplished through Citrix or VPN.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
July 2013	• Knowledge Management Initiative Team makes initial proposal
August 2014	• Partner dashboard discovery sessions commence with Door3
October 2014	• SharePoint 2013 discovery sessions commence with Door3
May 2015	• Partner reporting dashboards released to the Firm's partners
July 2015	• New intranet, Connect, released Firm-wide
Overall redesign time frame: Connect was branded, designed, developed, and deployed with new content in less than 12 months.	

CONTENT AND CONTENT CONTRIBUTORS

CONTENT DEVELOPMENT AND OVERSIGHT	
Ownership	• Content ownership is decentralized, so each site within Connect has a designator owner who is responsible for the maintenance of that particular site. • The Firm created an Intranet Advisory Council to assist in the launch phase of the project to discuss priorities, user feedback, and content ideas. This group initially met every week prior to launch, and will continue to meet regularly to help drive the strategy and direction of Connect.
Workflow	• For homepage content, the Intranet Project Team implemented an approval workflow system for the administrator to review and approve content. Content on the homepage is vetted by the Business Development, Marketing and Communications Department before it is posted.
Training	• Members of the Intranet Project Team train each content owner one-on-one. The Firm also built a wiki that walks content owners through the process of managing their own content.
Maintaining Quality	• There is a feedback link at the bottom of each page on Connect. As feedback is entered, the Intranet Project Team reviews and evaluates the feedback for future inclusion on the intranet.

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• VMWare (Virtual Machines), Windows 2012 Servers
Bug Tracking / Quality Assurance	• SharePoint Issues List
Design Tools	• InDesign, UXPin, Balsamiq
Site Building Tools	• SharePoint 2013
Content Management Tools	• SharePoint 2013
Search	• Microsoft FAST, Recommind Decisiv Search
Other Functions	• Neudesic Firm Directory • Handshake — SharePoint integration • 9 Dots — Financial Systems Cube

RESULTS AND ROI

The Firm leverages comprehensive metrics around intranet usage to drive further training, communication, and development efforts. The team has monitored the most frequently accessed areas of Connect and now drives the most high-value content, such as internally produced videos, to those high-traffic areas to ensure maximum exposure.

The Firm also proactively analyzes the hard metrics in order to identify underutilized offices/practices and provide service and training.

LESSONS LEARNED

Design team members share some lessons learned from the intranet redesign:

- **Focus on users through iterative design.** "We focused on an MVP [minimum viable product], which allowed us to get a product out quickly and organically drive future development based on user feedback, rather than spending years gathering input on requirements. Going into the project with this mindset allowed us to have a flexible foundation, which allowed us to more quickly respond to user feedback and changes in business demands. It also helped to ensure that the Intranet Project Team focused on improvements and additions that were responsive to the needs of actual users as prioritized by the entire user population rather than those that are anticipated by the Intranet Project Team or only pilot users."
- **Hire experts, as needed.** "Working with a third-party design firm was instrumental. This is a skillset most organizations do not have in-house, and user expectations have advanced to the point where elegant and effective design is critical to adoption."
- **Don't take training for granted.** "We provided a dedicated team to help train users on Connect and reinforced that team with regional support to help train and socialize Connect within our various offices."
- **Involve stakeholders from across the organization.** "Incorporating stakeholders from outside of IT is critical. Seeking input from business units from across the Firm helped us to meet our goal of collaboration and ensured we were building a sustainable system to meet business needs for various audiences across the globe."

The Co-operators Group Limited

OVERVIEW

COMPANY

The Co-operators Group Limited is a Canadian-owned co-operative with more than $40 billion in assets under administration. Through its group of companies, it offers home, auto, life, group, travel, commercial, and farm insurance, as well as investment products. The Co-operators is well known for its community involvement and its commitment to sustainability. The Co-operators is listed among the 50 Best Employers in Canada by Aon Hewitt; Corporate Knights' Best 50 Corporate Citizens in Canada; and the Top 50 Socially Responsible Corporations in Canada by Sustainalytics and Maclean's magazine.

Headquarters: Guelph, Ontario, Canada

Company locations: The Co-operators has 688 locations across Canada, including corporate offices, agencies, contact centers, and support offices.

Locations where the intranet is used: Every employee and financial advisor at The Co-operators uses the intranet regardless of location or role.

Direct written premium: $3.4 billion

THE INTRANET

Users: The intranet, called *Source*, supports nearly 7,000 employees and advisors across the group of companies. This includes employees in various companies and in corporate, call center, and field roles. Users access the intranet for daily news updates, collaboration, corporate information, HR information, and tools to perform specific work tasks within the organization.

Mobile approach: Users can access Source on a corporate cell phone; however, the site was primarily designed for desktop/laptop. A mobile approach is in scope for future development phases.

Technology platform: Microsoft SharePoint 2013

TEAM

Project VP sponsors: Paul Mlodzik, VP, Marketing and Communications (Business Project Sponsor); Mike Kavaner, VP, Solution Delivery (IT Project Sponsor)

Project directors: Barb Stephens, Senior Director, Corporate Communications; Timothy Somerville, Director, Web Marketing (former employee)

Project operating group: Tim Gapakov, Project Manager; Andrea Crane, Business Communications Lead; Shannon Hilker, Web Marketing Project Lead

Cross company business communications: Michelle Missere, Communication Plan Lead; Nathalie Joyal, Translation Lead; Line Donald, Translation Lead; Nick Jones, Content Writer; Julia Toth, Communications Support; Vanessa Iacocca, Web Publisher; Karen Vuong, Web Publisher; Cheryl Cotterhill, Sovereign Business and Technical Lead; Jayne Russell, CGL Business Lead; Shannon Patton, CLIC and CUMIS Business Lead; Lindsey Seip, HB Business Lead; Kimberly Hutchison, HB Business Lead; Glenys Rodwell, Federated Business Lead; Amy Kristensen, TIC Business Lead; Nancy Rooney, CGIC Business Lead; Dana Arous, Field Lead; Tamara Mukandi, Field Lead; Yvonne Grant, Web Marketing Specialist (former employee); Stephanie Harris, HR Business Support; Luisa Lago, Promotion Campaign Support; MaryLou Schaefer, Promotion Campaign Support; Heather McCann, Promotion Campaign Support

Development: Carrie Norman, Business Analyst; Lisa Gauthier, Senior Business Systems Analyst; Milan Taran, Business Systems Analyst; Anthony Runstedler, Developer; Adriana Banica, Developer; Nashid Forbes, Developer; Jamal Zaghit, Developer; Tanveer Hassan, Solutions Architect; Xiaobo Liu, Technical Web Support

INTRANET TEAM

Team members shown here (left to right, top to bottom): Tim Gapakov, Nashid Forbes, Nick Jones, Carrie Ann Norman, (name unavailable), Brian Richardson, Adriana Banica, Anthony Runstedler, Jamal Zaghit, Barb Stephens, Hayley Iacocca, Andrea Crane, Shannon Hilker, Michelle Missere, Milan Taran, Vanessa Iacocca, Lisa Gauthier, Karen Vuong, Line Donald, and Marc Séguin.

HIGHLIGHTS ABOUT THIS WINNER

The *Source* intranet connects people and work processes across The Co-operators Group of companies. It does a wonderful job promoting communication, collaboration, and community.

- **Employee Inclusion, Recognition, and Opinion:** Features such as the weekly *Five minutes with…* feature, polls, achievements, and the ability to submit news, help the nearly 7,000 users across Canada feel valued, offer their feedback, and find multiple avenues to get to know one another.
- **Multi-Language:** Because there are both English and French speakers at the organization, Source makes it possible for them to work in either language and even to switch between the two languages easily.

- **Performance and Mission:** Source houses broad company performance figures on a dashboard, corporate strategy and mission information, background about leaders, and much more.
- **Executive Blogs:** Senior leaders take turns writing about topics that are important to the organization. They regularly share their knowledge and opinions and ask employees to do the same.
- **Help:** *SourceBook* provides thorough, wide-ranging guidance about how employees can make the most of Source.
- **Consistency:** The menus and pages are presented in consistent and expected ways. Employees find common elements on article pages and blog pages, on appointments and role changes. The consistent look and feel helps employees acclimate quickly on pages and move effortlessly around the UI.

BACKGROUND

Multiple CMSs, standalone portals, and piecemeal builds had rendered The Co-operators intranet a cluttered "patchwork quilt," rather than an integrated space that met the organization's communication and business needs. The content was not searchable or consistently designed; the technology was outdated and difficult to use; and the content structure encouraged siloed activity rather than collaboration. Users were increasingly asking for enhanced functionality. A rebuild was necessary to develop an intranet that would function as an enterprise-wide collaborative workspace.

The redesign's goal was to provide a common user experience that would connect people and work processes across The Co-operators Group of companies by promoting user-centric communication, collaboration, and community. The company's business goal — to be the leader in client engagement — resulted in one of the project's greatest challenges: to create a single intranet that met the needs of each company and the overall enterprise, as well as the continuously evolving corporate culture.

Based on a 2010 employee survey, The Co-operators team knew that the company's existing intranet ("The Source") was a critical resource for 64% of users, with 84% of users visiting the site more than twice per day to stay informed and perform their jobs.

Although it was a much-needed resource, the intranet was not user friendly. Of the 450 survey respondents, only 52% said they successfully found what they were looking for on The Source.

In 2012, the intranet team received approval to rebuild the intranet, in phases, to create a better user experience; however, it was given limited funds, resources, and time (17 months) with which to achieve its sizeable mission. The team's limited experience with SharePoint 2013 meant that the intranet project also presented a steep technology learning curve.

In 2013, the team created a governance structure and developed the mission, vision, and guiding principles that would support the rebuild project. Once the project scope was defined and business requirements were developed, the project kick-off communication was shared with all employees. Company representative groups were the first to test, validate, and socialize the designs; usability testing was then conducted with employees so the design team could compare the old IA and design against the new. Once testing was complete, a promotional campaign led up to the official launch on May 27, 2014.

DESIGN REVIEW

Homepage (English)

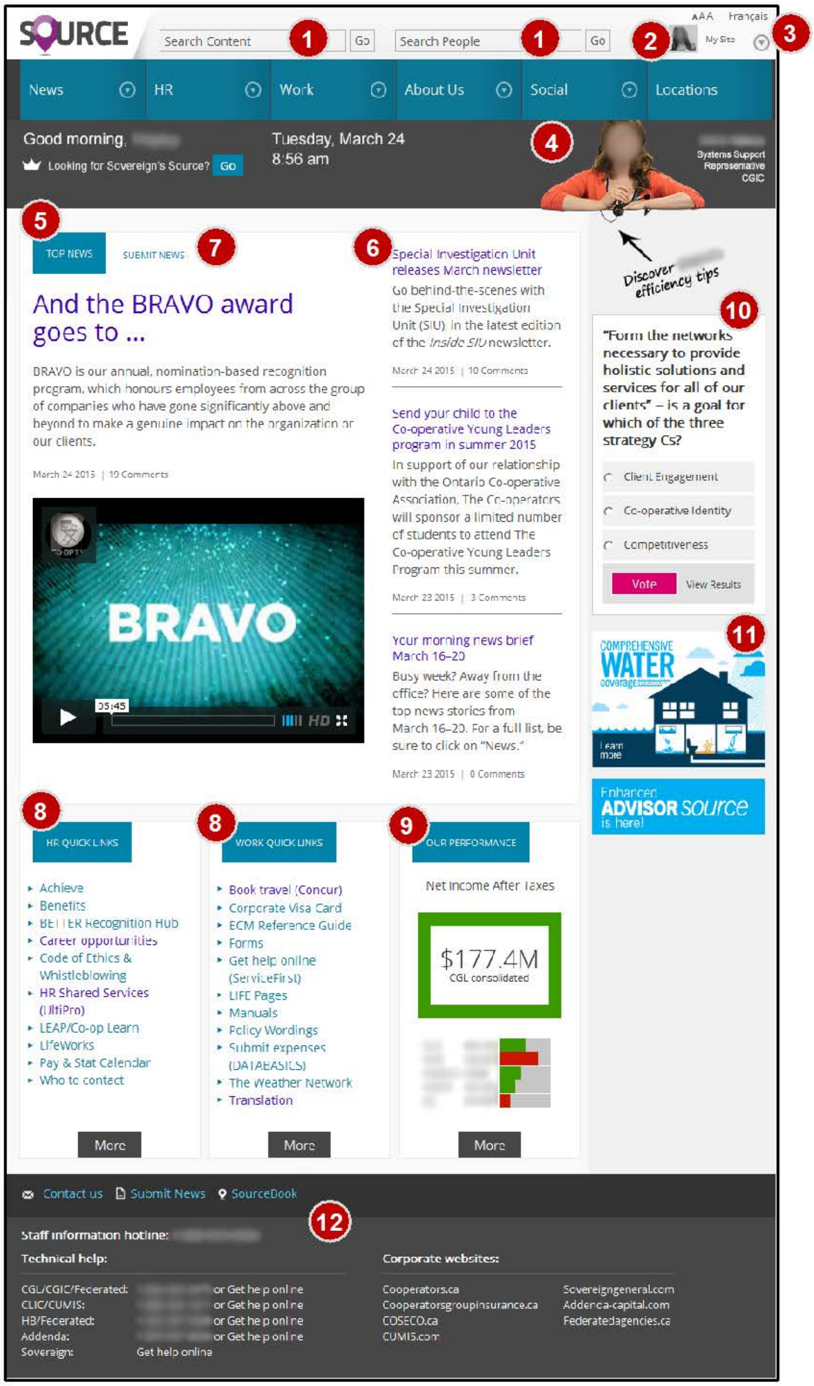


Image 27. The Co-operators Intranet: Homepage (in English).
27_TheCooperators_01_EnglishHomepage_live.png

Homepage (English) Highlights

This homepage packs an impressive amount of powerful and empowering content:

1. **Searches:** Both the site search and the employee search appear at the top of the page, making it very easy for users to access all Source content and information about coworkers.
2. ***My Site*:** The *My Site* link in the upper right gives people access to their personal profile page, which other employees see. Because users have a wide variety of roles — the executive leadership team, corporate staff, insurance and financial advisors in the field, and their support staff — these profile documents are educational for users.
3. **Language Selection:** The *Francais* link offers quick access to the French translation of the intranet. In the French version, that link changes to *English* so employees can easily switch back.
4. **Employee Showcase:** Each week, a different employee is interviewed and profiled on the homepage just below the menu. This *Five minutes with…* feature is an excellent way to help employees get to know one another. Readers can also comment on the profile, which helps employees feel valued and that their work and opinions matter.
5. ***Top News*:** A news item is showcased with a large headline in the first content section on the homepage. This helps people who don't have a lot of time to quickly identify the most important piece of news. The article's publish date is in international format. The number of comments on the article indicates the amount of interest in the topic. A video or image below it provides more information and, as with all news items, users can provide comments.
6. **Other News:** Three additional news items appear in the column to the right of the main item. By scanning the headlines and brief summaries, employees can quickly get a sense of the top corporate news.
7. ***Submit News*:** To generate varied, inclusive, and interesting topics, employees are encouraged to submit corporate news. The *Submit News* link is a visible advertisement for this positive effort.
8. **Popular Links:** Below the news is a list of the most visited intranet sections related to HR and work.
9. **Company Performance:** The *Our Performance* section provides important figures, including for sales and performance. This keeps all employees aware of targets and how well the business is meeting them. Communicating this information serves many purposes, not the least of which is to remind employees about business goals and accomplishments, help make all employees feel proud, and motivate them to collectively work to meet or exceed company goals.

10. **Poll:** A poll, which is updated three times per week, asks employees questions about various corporate and current event topics. This encourages employees to offer opinions, be part of something greater, and see what their colleagues think. It can also help the organization's managers and communicators gauge employee awareness and knowledge about particular topics.
11. **Promotions:** In the right rail under the poll, ad space is reserved for internal promotions. Here, teams can advertise a program or initiative, or help users quickly complete a task with a call to action.
12. **Fat Footer:** Contact information for help, feedback about the intranet, and various other hotlines are readily available in the page footer. This footer area is clearly delineated visually with a dark background juxtaposed against the light page.

Homepage (French)

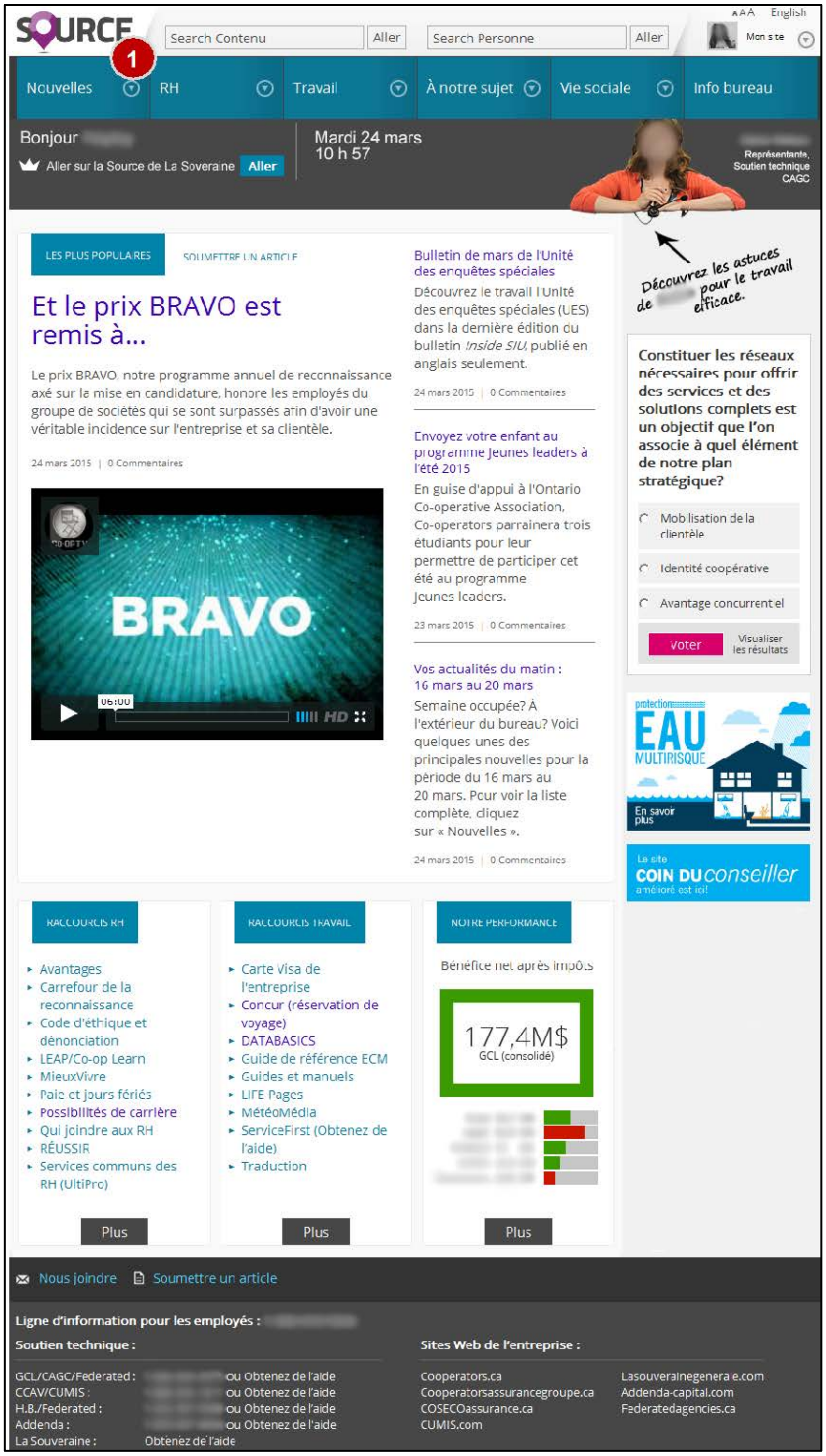


Image 28. The Co-operators Intranet: Homepage (in French).
28_TheCooperators_02_FrenchHomepage_live.png

Homepage (French) Highlights

Because Canada has two official languages, all news articles, polls, profiles, and ads are posted simultaneously in English and French. This helps to ensure that all employees have access to the same information, at the same time, in the language of their choice.

1. **Equal:** Besides the translation, the content, page layout, and look and feel are the same as the English version of the homepage.

My Site

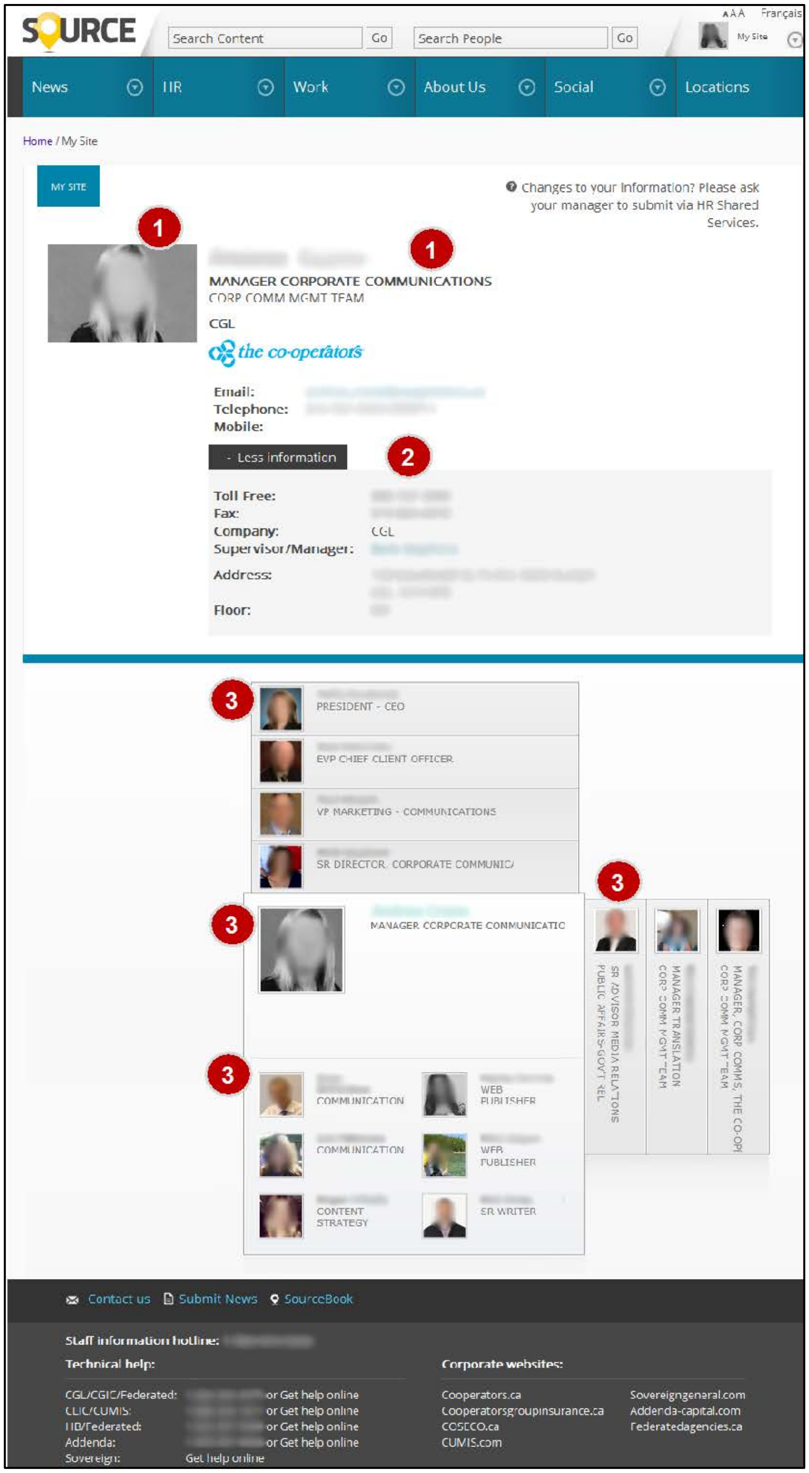


Image 29. The Co-operators Intranet: *My Site*.
29_TheCooperators_03_MySite_live.png

My Site **Highlights**

1. **Photo and Job Information:** The person's photo, job title, and the company he or she works in appears at the top of the profile.
2. **Contact information:** Phone numbers, email, office location, and more help colleagues to get in touch.
3. **Organizational Chart:** A refreshing variation on the traditional-looking organizational chart, this version shows the people the employee reports to and higher (appearing above the employee's profile box), the people with parallel jobs (horizontal to the box), and the people who report to her (below the box). The organizational chart is dynamic, and it expands and contracts as users navigate their way through the hierarchy.

News

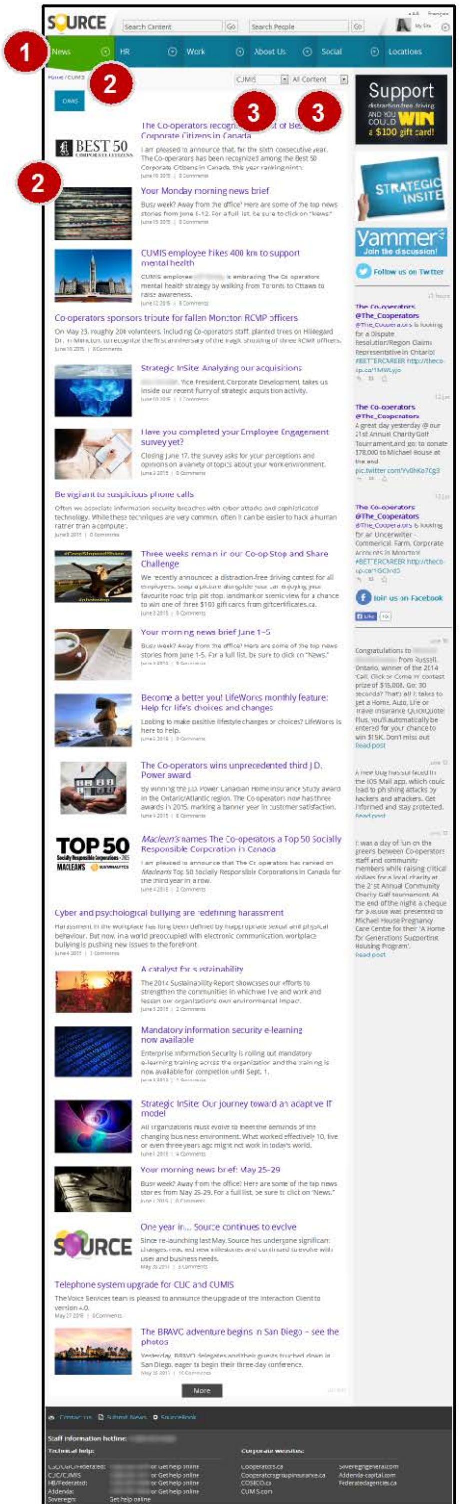


Image 30. The Co-operators Intranet: *News*.
30_TheCooperators_04_News_live.png

News Highlights

Beyond the homepage news, Source offers a rich *News* section.

1. **News Menu:** The *News* section is the first link in the global navigation. It's straightforward to determine which menu item is selected, as the background turns green and changes shape, while the unselected menu items remain blue and rectangular.
2. **News Page:** The page displays a chronological list of news articles targeted to users according to the company they work for (as indicated in the breadcrumb at the top of the page).
3. **Select Different Targets:** Although the default list shows targeted news, employees can select a different company from the drop-down menu. They can also select a specific content category, such as: *Industry*, *Business*, *HR*, *Field*, *People*, *Technology*, or *Strategic InSite* (the company's executive blog series).

News Article

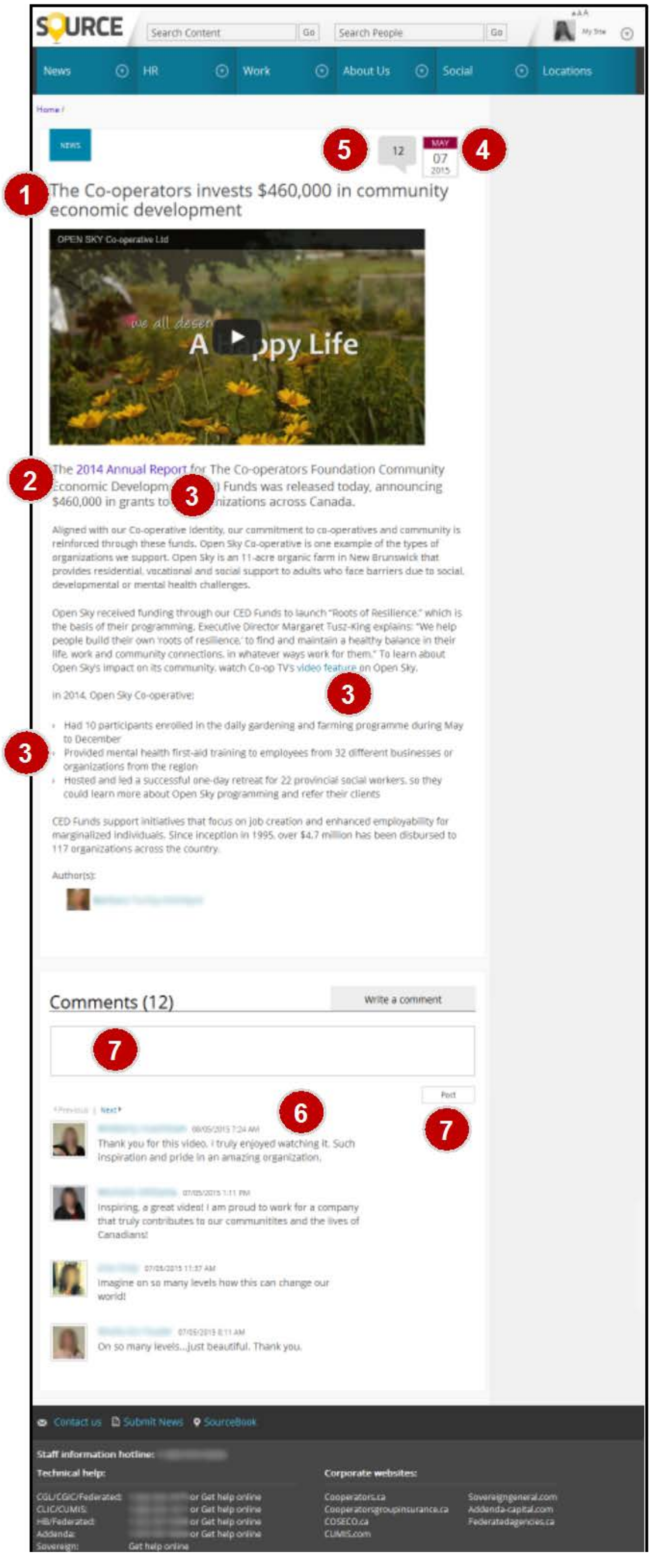
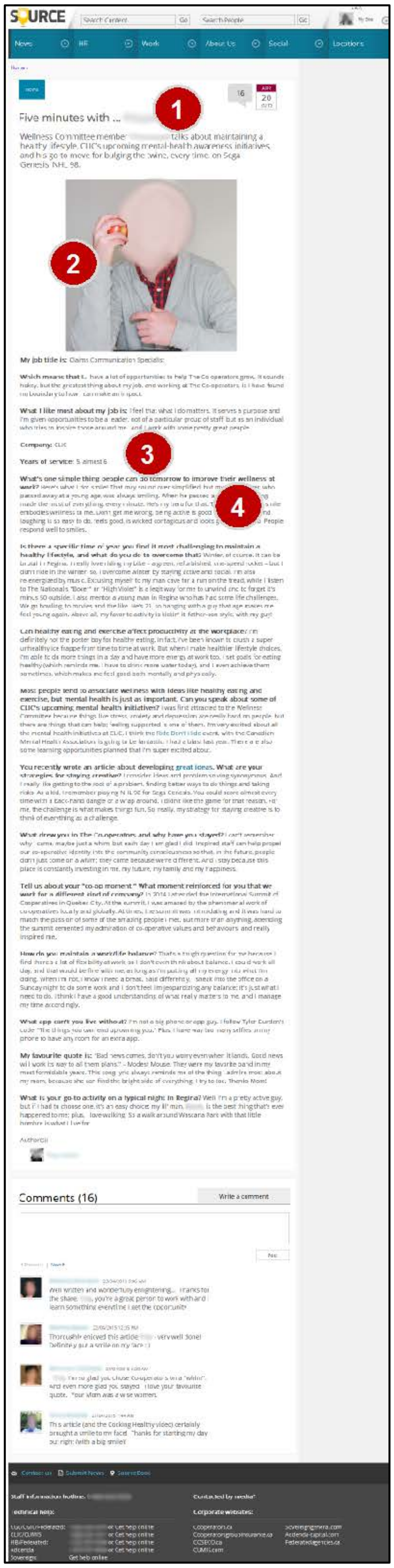


Image 31.
The Co-operators Intranet: News Article
31_TheCooperators_05_NewsArticle_live.png

News Article Highlights

1. **Clear Headline:** Large text at the top of the page is easily identifiable as the news headline.
2. **Legible Text:** Dark text on a light background, written in a narrow column, increases legibility.
3. **Bullets and Links:** The human eye scans to elements, such as bullets and links, when they appear in different colors. These help call out interesting points in the article, helping employees to scan more efficiently.
4. **Date:** The article's publish date appears in a familiar calendar icon at the top.
5. **Number of Comments:** A ubiquitous comment icon with a number inside indicates how many comments have been made on the article.
6. **Comments Made:** Comments appear in an expected place, below the *Comments* field at the end of the article.
7. **Make a Comment:** An open text field and the *Post* button beckon people to participate and share their thoughts.



Showcase Employees Highlights

1. ***Five minutes with…* :** This is a fast, simple, and creative way to showcase a different employee each week. The name of this feature indicates to readers that it will take just a few minutes to read.
2. **Picture:** A photo of the person is either taken in the work context or related to his or her response to one of the article's questions.
3. **Questions:** The article is formatted as a simple question-and-answer piece to help keep the editing to a minimum. The questions are in bold text.
4. **Answers:** Answers are written from respondents' perspectives and demonstrate how their work role fits within the organization's business objectives, while also revealing aspects of their personality.

Image 32. The Co-operators Intranet: *Five Minutes With…*: A Feature That Profiles Employees.
32_TheCooperators_06_FiveMinutesWith_live.png

Recognize Employees: Change in Role

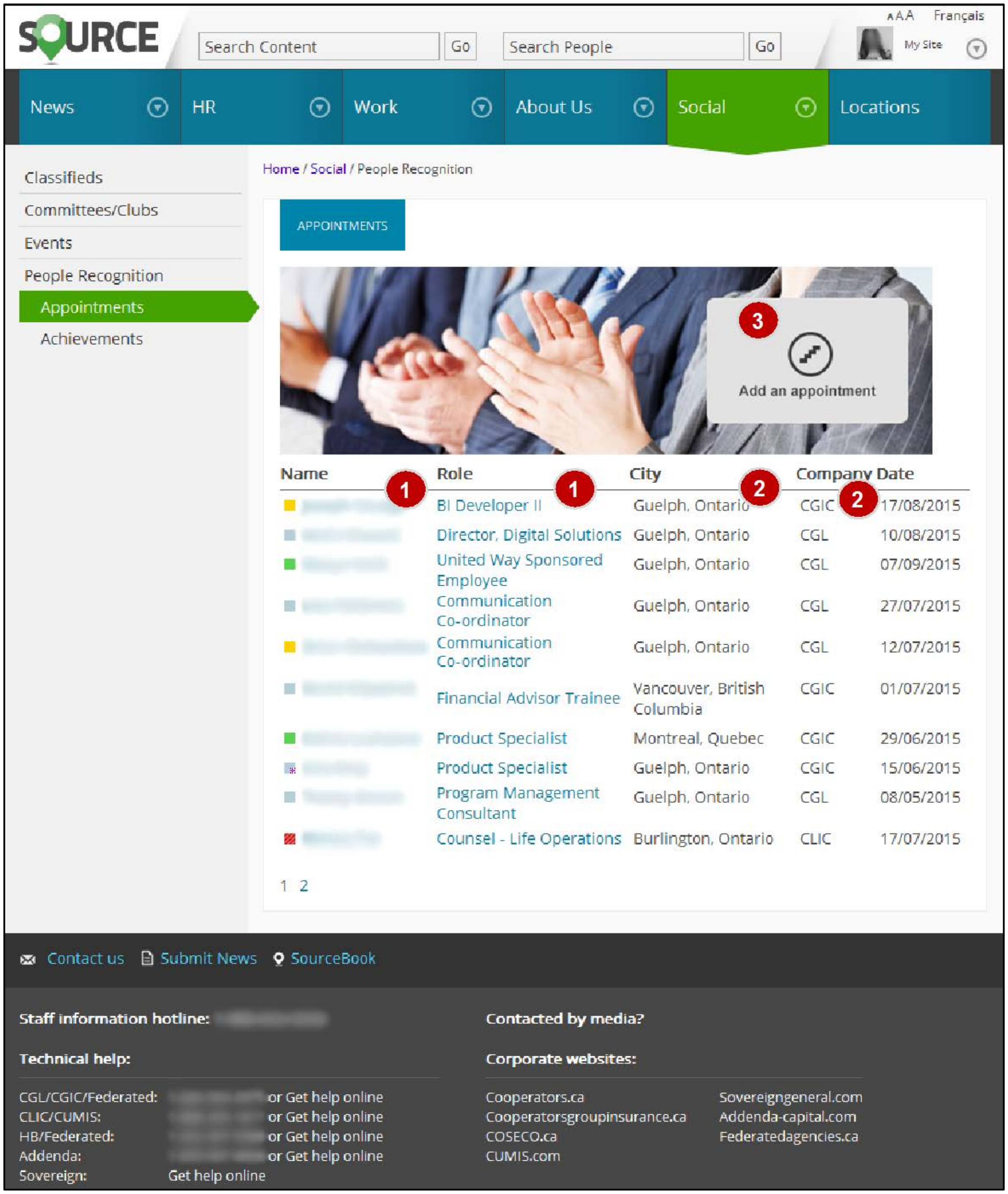


Image 33. The Co-operators Intranet: *Appointments* Listing. This listing appears in the *People Recognition* tab of the *Social* section.
33_TheCooperators_07_SocialAppointments_live.png

Recognize Employees: Change in Role Highlights

1. **Name and Role:** When employees are appointed to a new role, it is recognized on Source, which lists the person’s name and the new role. This helps people feel acknowledged and also communicates the change to other employees.
2. **Where and When:** The city, company, and date of the role and appointment are listed.
3. **Add:** The *Add an appointment* link allows users to post new appointments, eliminating the need for web publishers.

Recognize Employees: Education

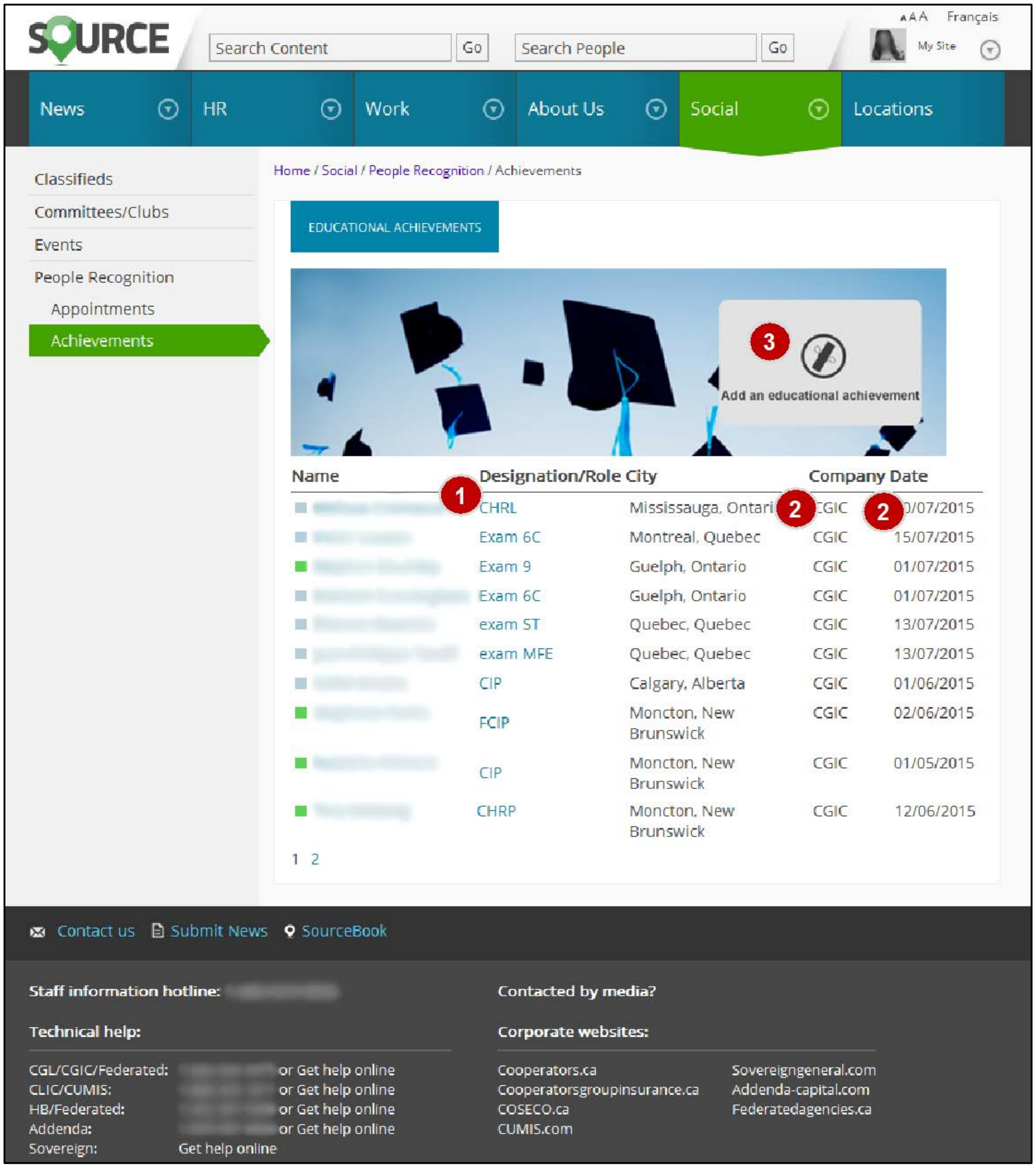


Image 34. The Co-operators Intranet: Achievements Listing in the *People Recognition* Tab of the *Social* Section.
34_TheCooperators_08_SocialAchievements_live.png

Recognize Employees: Education Highlights

1. **Name and Education/Role:** When employees have completed specific education or training, or achieved a new designation, it is recognized on Source. The person’s name and achievement are listed. In addition to the personal enrichment, it’s nice to be recognized for reaching new goals and levels. It also can help employees find colleagues with particular knowledge and skills.
2. **Where and When:** The city, company, and date of the achievement are listed.
3. **Add:** The *Add an educational achievement* link allows people to post new achievements directly, eliminating the need for web publishers.

Executive Blog Series

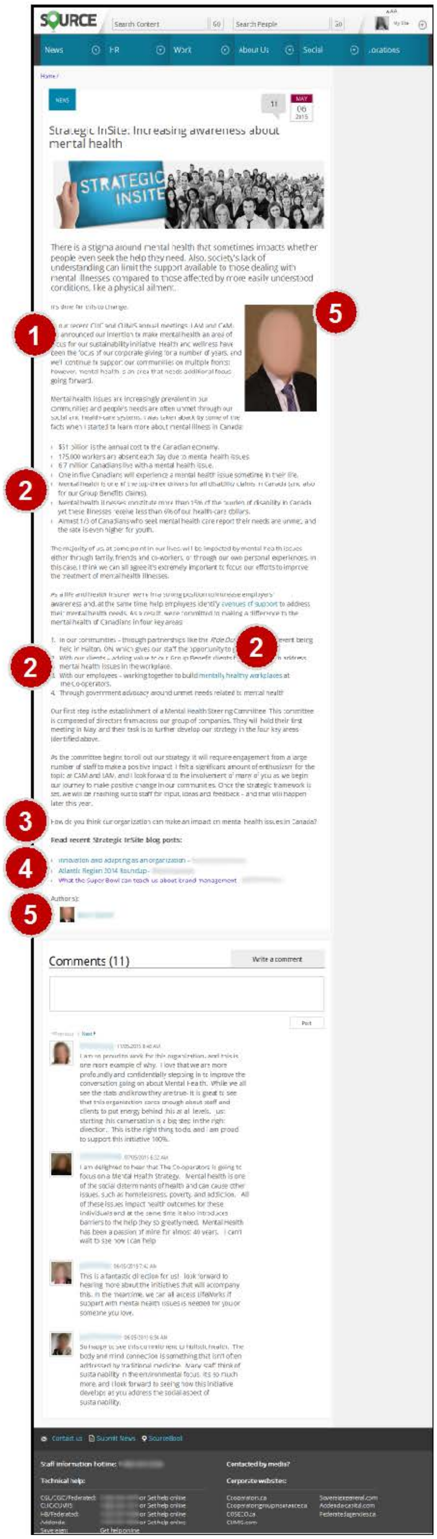


Image 35. The Co-operators Intranet: Executive Blog Article
35_TheCooperators_09_StrategicInSiteBlog_live.png

Executive Blog Series Highlights

Senior leaders take turns writing blogs on various topics related to their expertise. This demonstrates to employees the leader's desire to share and collaborate with them. The *Comments* field lets employees and executives engage in discussions.

1. **Content:** Executives share various efforts and/or positions, along with their related activities and plans.
2. **Formatting:** Bullets, numbers, links, and narrow columns make content easier to scan.
3. **Call to Action:** A question at the end of the article directs employees to give their opinions. This increases participation; some employees would not naturally comment on an executive's post.
4. **Related:** Links to recent blogs appear at the end.
5. **Author:** The author's name and photo appear on the right.

Social Events

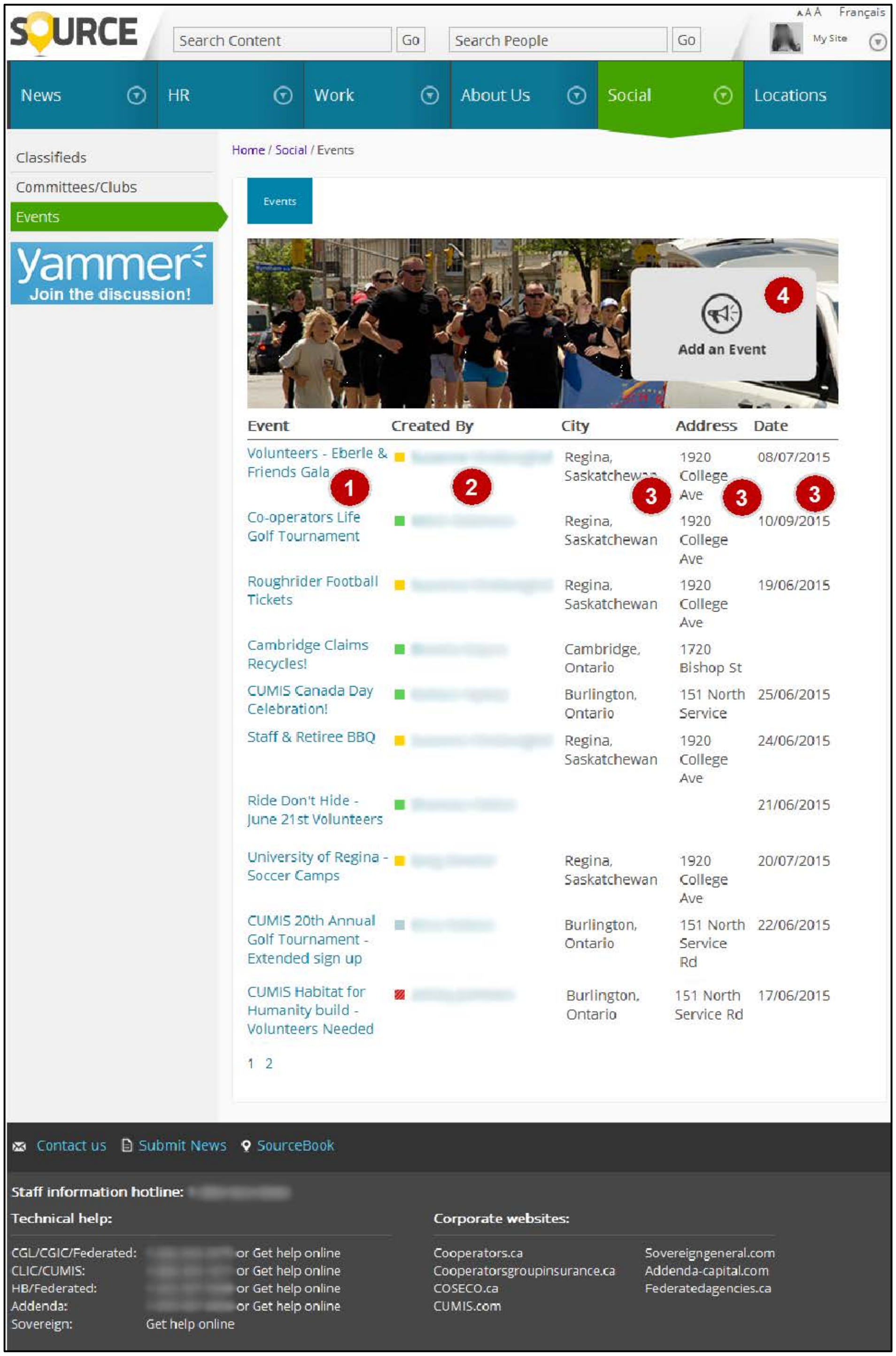


Image 36. The Co-operators Intranet: *Events* Listings Page in the *Social* Section. *36_TheCooperators_10_SocialEvents_live.png*

Social Events Highlights

Employees can engage with one another beyond the typical work meetings through the social activities (such as sports teams) and volunteer opportunities listed in the *Events* section.

1. **Name:** The name of the event is a link to more information.
2. **Owner:** The person who created the event is listed, in case further contact is needed.
3. **Where and When:** The address and date are listed.
4. **Add:** Anyone can add an event via the *Add an Event* link.

About Us

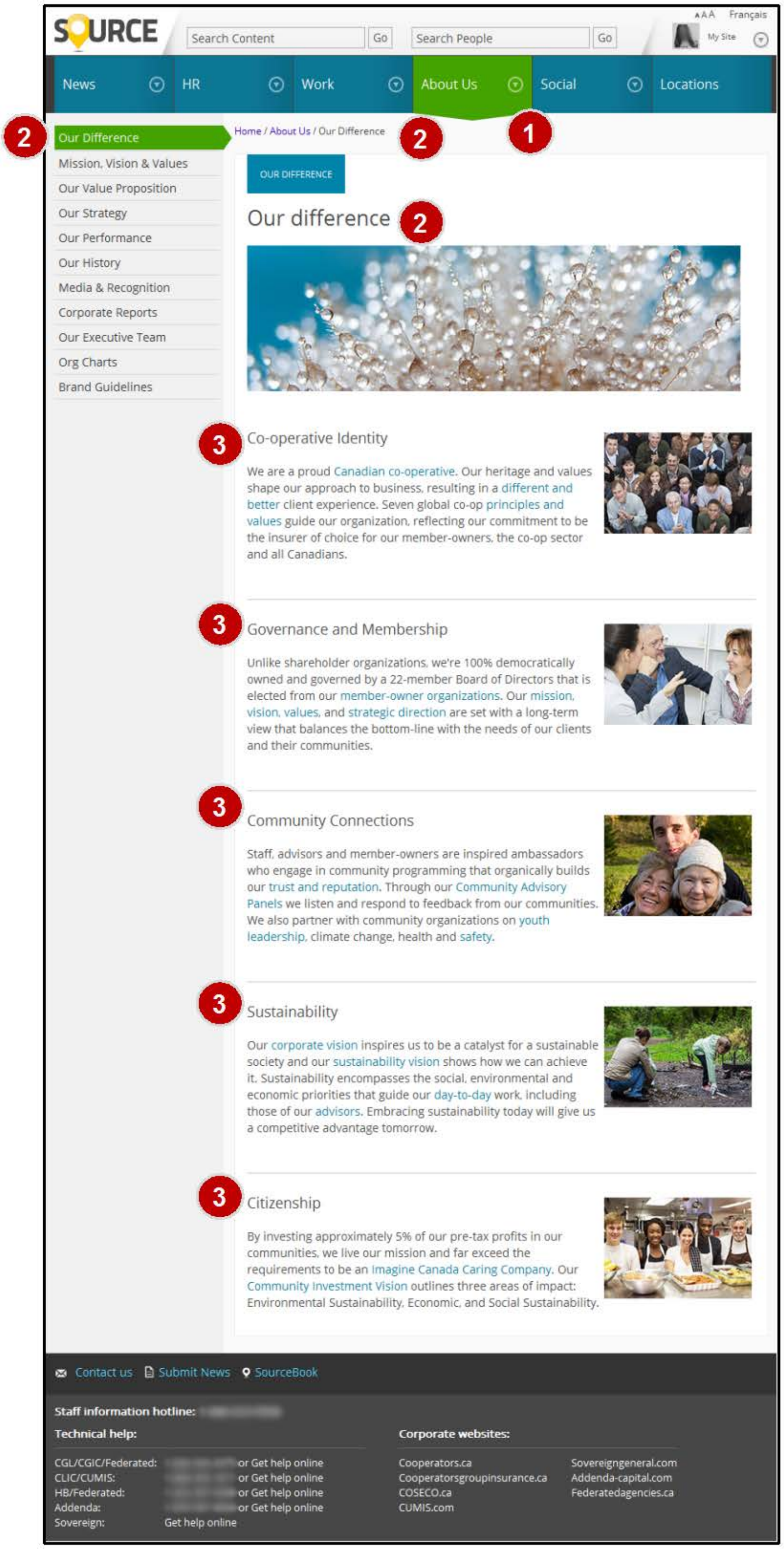


Image 37.
The Co-operators Intranet:
***About Us* Page.**
37_TheCooperators_11_AboutUs_live.png

About Us Highlights

About Us keeps employees aware of the corporate mission, strategy, community initiatives, financial information, and more.

1. **Menu:** A clear, simple label, *About Us,* in the global navigation makes the information easy to locate.
2. **Topics:** Important topics such as strategy, history, and performance are listed as links in the left-side navigation. The selected topic appears several times: as a green item in the left-side navigation, in the breadcrumb, and on the page title. All of these wayfinding cues add to employee confidence as they use Source.
3. **Sections:** Content is chunked into small, digestible sections. The title, lines, and white space between sections make them easy to scan to.

History

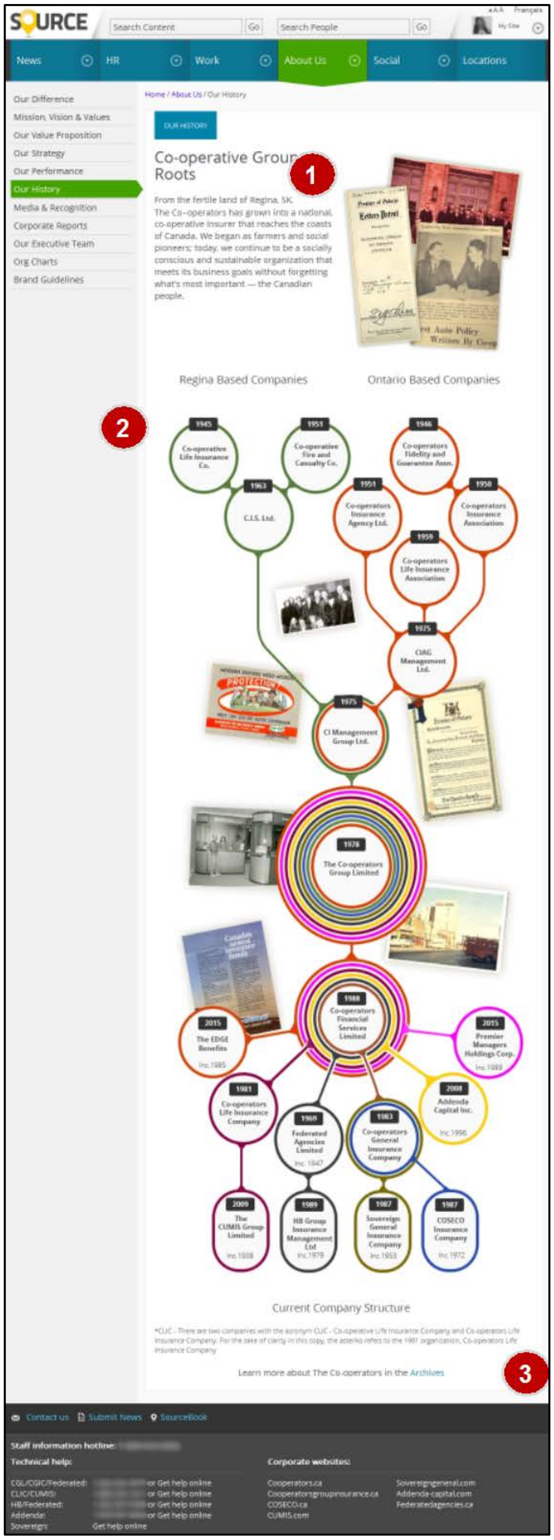


Image 38. The Co-operators Intranet: *Our History* Timeline.
38_TheCooperators_12_OurHistory_live.png

History Highlights

Historical information about the organization can be eye opening and inspiring to employees.

1. **Summary:** The background is summarized at the top of the page.
2. **Diagram:** A diagram shows the dates, historical events, and a timeline of how the company structure evolved.
3. **Archives:** To learn more, employees can click the *Archives* link.

History Pop-Up

Image 39. The Co-operators Intranet: Information Bubble on the History Page. *39_TheCooperators_13_OurHistoryBubble_live.png*

History Pop-Up Highlights

1. **More Information:** Pausing the cursor over an element in the diagram opens a pop-up with related information.

Performance

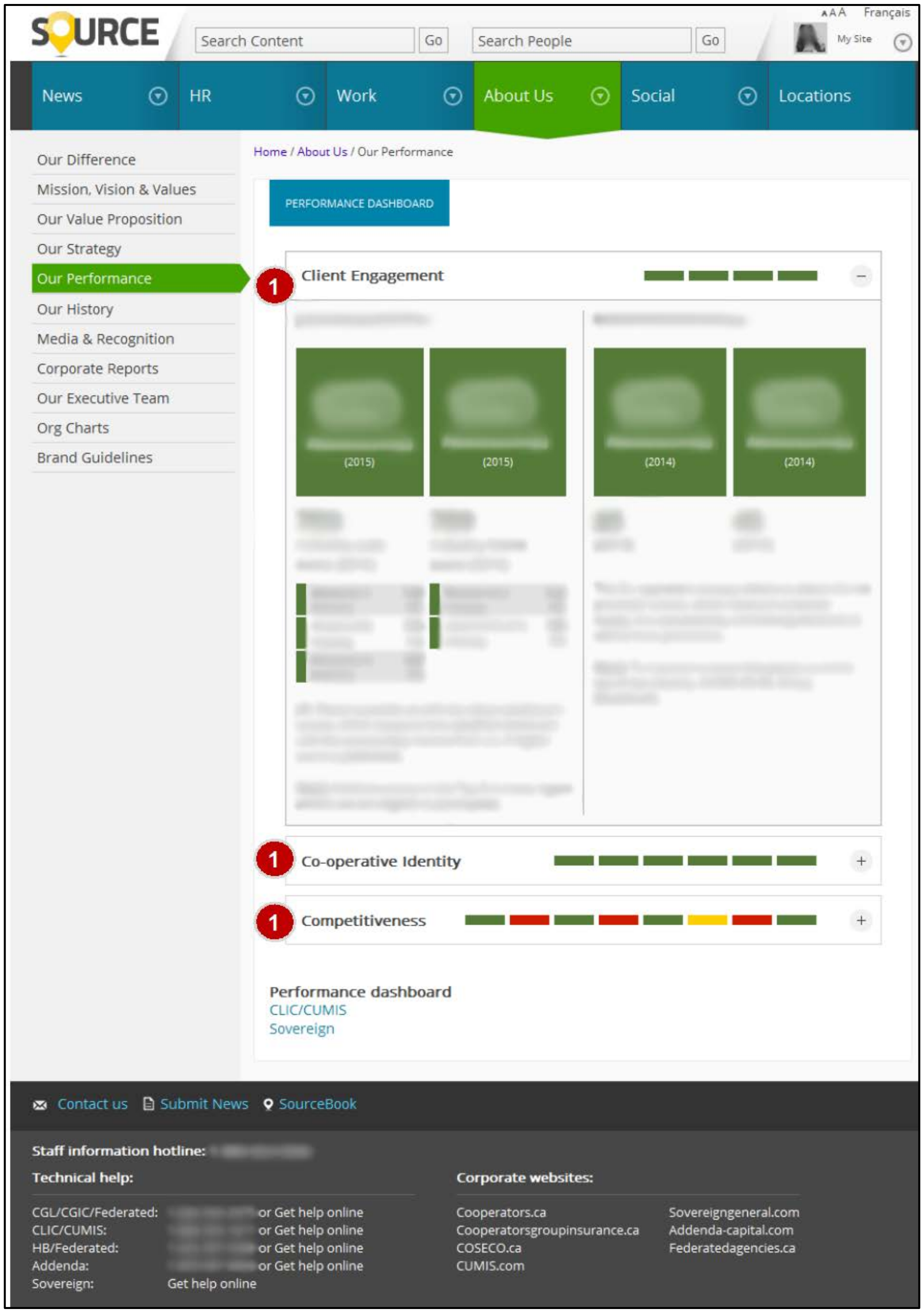


Image 40. The Co-operators Intranet: Performance Dashboard.
40_TheCooperators_14_PerformanceDashboard_live.png

Performance Highlights

1. **Performance:** This dashboard summarizes performance information about client engagement, identity, and competitiveness.

Locations

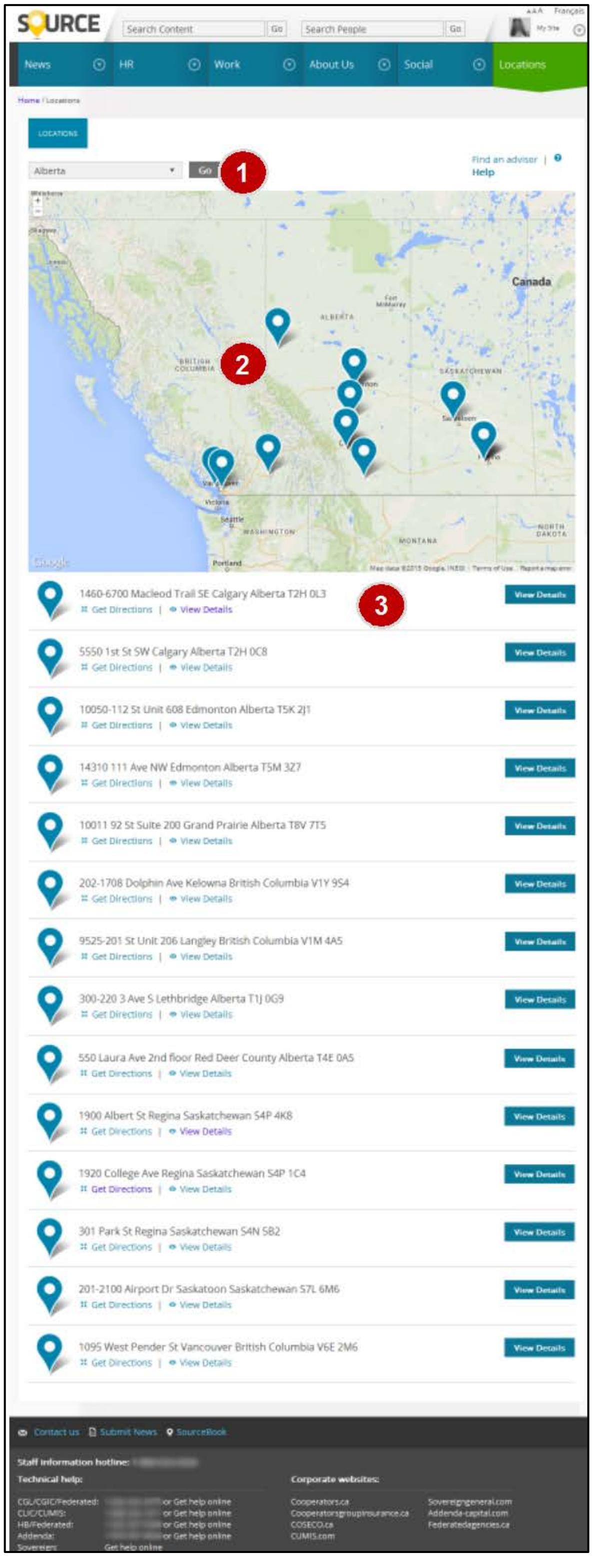


Image 41.
The Co-operators Intranet: Example *Locations* Page.
41_TheCooperators_15_Locations_live.png

Locations Highlights

Office location information is summarized and readily findable on Source. With several companies operating under The Co-operators Group Ltd., the intranet supports every employee regardless of his or her company, role, or geographic location. So, the ability to find locations can be very informative.

1. **Cities:** A drop-down by city makes it easy to see locations.
2. **Map:** Pinpoints on the map display offices and their vicinity.
3. **Summary:** Address and links to directions and details make getting all the information you need a snap.

Help

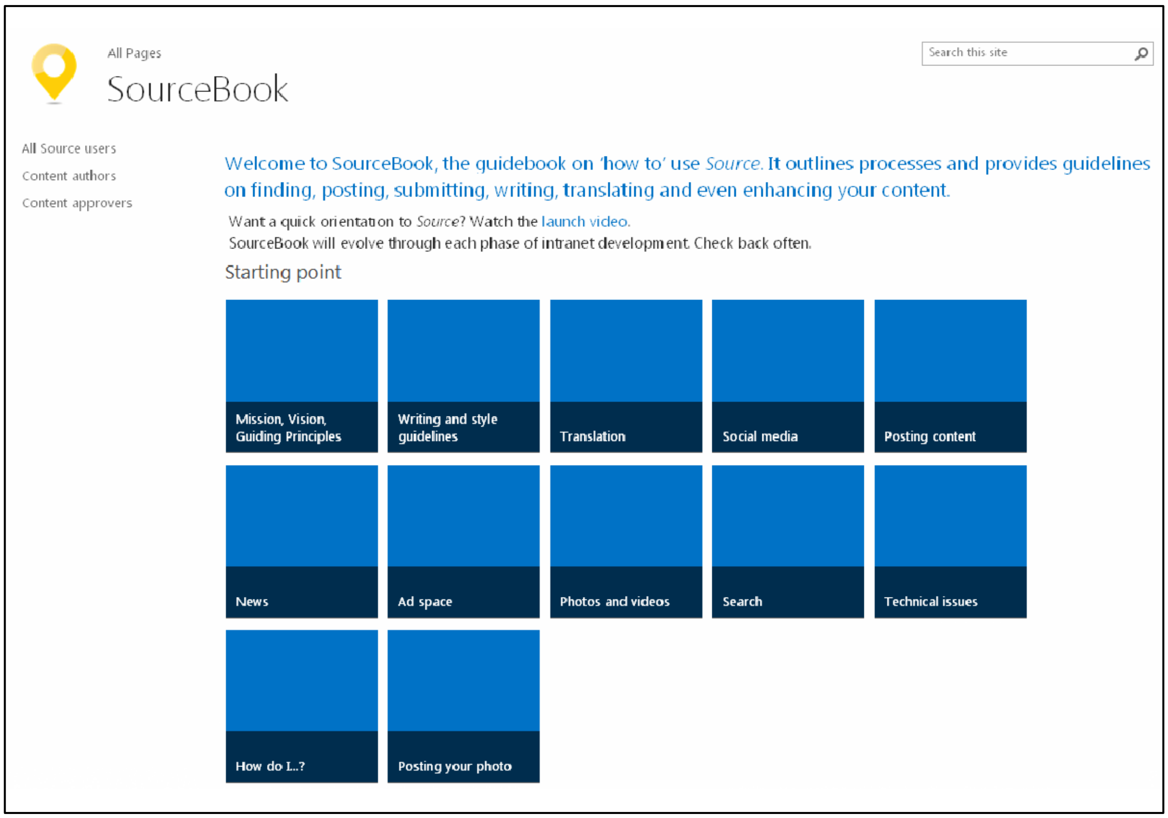


Image 42. The Co-operators Intranet: *SourceBook*. This provides various types of help guidelines. *42_TheCooperators_16_SourceBook_live.png*

Help Highlights

The simple intranet design doesn't warrant help per se. Still, *SourceBook* provides guidelines, video, and written steps about how to use various intranet sections.

Megamenu Navigation

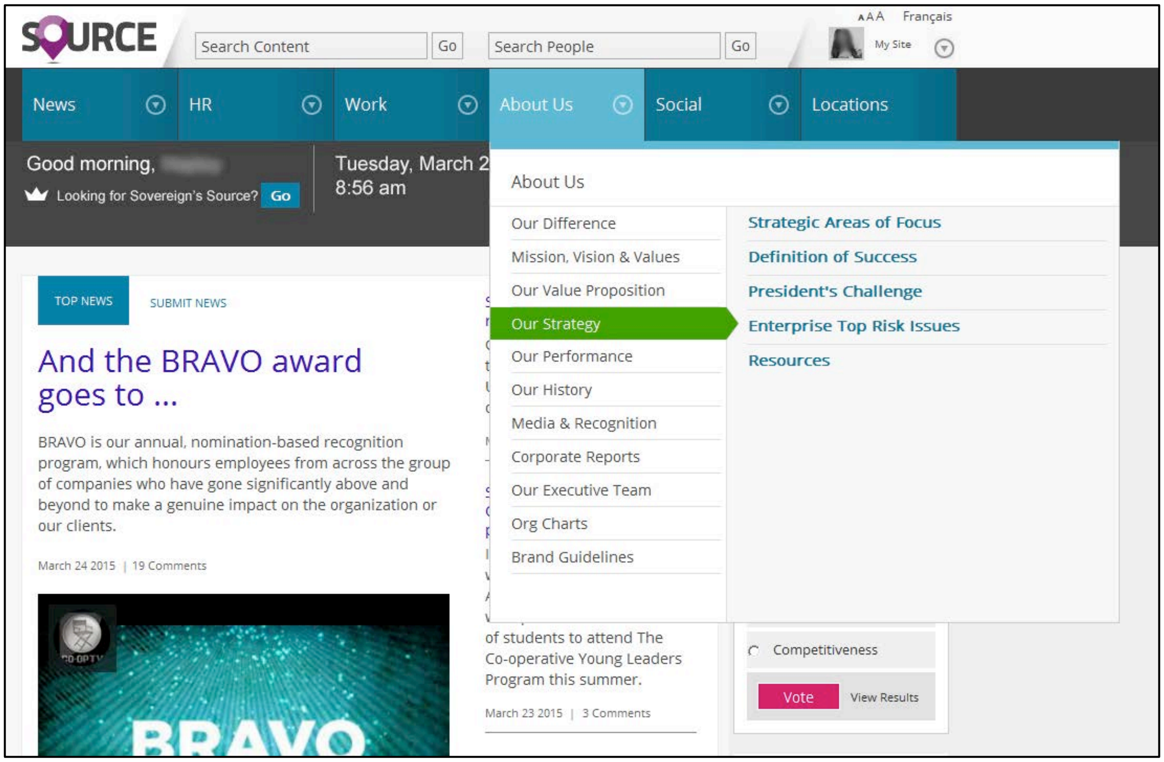


Image 43. The Co-operators Intranet: Megamenu Navigation. The megamenu navigation is simplified, with just six high-level categories. The clear tags and titles provide an intuitive, decluttered user experience.
43_TheCooperators_17_MegaMenuNavigation_live.png

Content Search Results

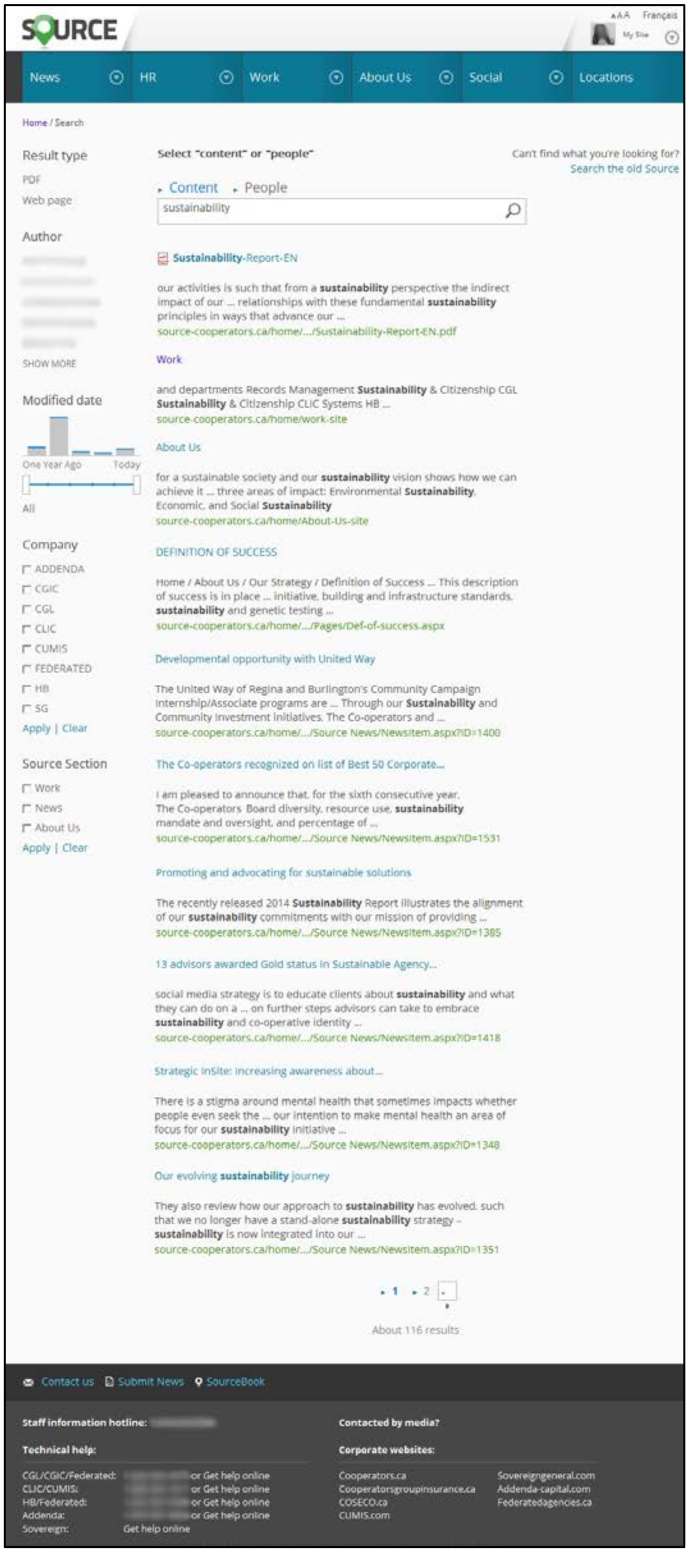


Image 44.
The Co-operators Intranet:
Content Search Function.
Using the content search function, employees can look up articles, resources, or pages using keywords and wildcards to quickly find the information they need to do their jobs.
44_TheCooperators_18_ContentSearchUnfiltered_live.png

DESIGN PROCESS AND USABILITY WORK

The design team engaged employees throughout the planning process by posting nine quick polls and conducting 14 usability tests (nine eyetracking tests and five navigation-structure tests). The quick polls — which generated responses from 900 employees on average — confirmed which content was considered high-value and which features were important. More than 2,000 employees participated in usability tests, which measured the new intranet's ease of navigation and content organization.

The legacy intranet had standalone portals for different business areas, which contributed to the fragmentation of business processes and data, as well as creating clutter and preventing employees from finding the information they needed. To develop an enterprise-wide intranet that fostered collaboration, the rebuild project strongly emphasized IA from the start; revising content flows to optimize critical information pathways was one of its main objectives. This process included several components, including:

- **Outside research:** Team members referred to the Nielsen Norman Group's 2013 Intranet Design Annual and used Prescient Digital Media's resources to learn design best practices before they began to review the content.
- **Content audit:** Business requirements were determined and a draft of the IA structure was developed based on a content audit.
- **Testing:** Usability testing was then conducted to determine if the proposed site structure would be successful in improving user efficiency. The team used an online tree testing software called *Treejack* to evaluate content findability within the new structure compared to the existing structure. The test results from more than 350 participants demonstrated that the overall success rate for completing tasks using the new navigation was 92% and required an average of 2.7 minutes, compared to an overall success rate of only 52% and 4.2 minutes on the existing site structure. These results demonstrated that the new site infrastructure would not only improve organization and eliminate clutter, but it would help employees more effectively find what they need to complete their work.

The design team made some important changes to the intranet based on findings from the usability tests, for example:

- **News:** When testing the news section, team members found that employees consistently visited the announcement filter for people and HR news. The filter had become a catchall. As a result, team members refocused the news filters to help users narrow their news preferences. They shared these results with employees via intranet updates, which helped generate awareness and validated that the new navigation was intuitive.

- **Information finding:** During the testing, team members asked employees to find important information, such as the company's *Code of Ethics* and Health and *Safety Information*. They found that 79% of respondents could not find the *Code of Ethics*, so they added it as a quick link on the homepage. Approximately 60% of employees could not find the *Health and Safety information*, which was mapped under *Life/Work balance*, so they moved it to the *Resources and Tools* section, which provided a higher success rate.
- **Company-specific news:** Only 65% of users were able to successfully navigate to news specific to their company, so the team added a section to the launch day animated video describing how to navigate the news.

Involving users in early testing and sneak peaks gave the team valuable insights into how people were using the new site structure and what was and wasn't working. For example, six months prior to launch, the rebuild team, along with company representatives, met with people from 16 major business areas to share a sneak peek of the site and demonstrate its functionality and high-level navigation structure.

"From these sessions, we received valuable feedback and changed some of our content mapping decisions," says Barb Stephens, Senior Director, Corporate Communications. "For example, we added quick links on the homepage of the intranet to key tools and resources, such as change forms, product manuals, and other high-traffic pages."

Getting Buy-In

Given how long it had been since the site had been changed, the team expected some challenges with buy-in from users when the site was rebuilt on SharePoint.

"Although The Source legacy intranet was inefficient and outdated, the majority of our employees have been with the company for nine-plus years and had memorized where to find content, so we anticipated that some users would have a difficult time with the change," says Stephens. "To help with the learning curve, the first news story on the new intranet featured a short video outlining the different features of the site and tips on how to best navigate. The article also introduced the *SourceBook* resource and provided contact information for assistance."

Checking in With Users After Launch

In September 2014, after the new site was launched, team members conducted focus groups to help determine the project's success and next steps. They wanted to know what was working and what wasn't. Employees in a variety of different roles from each of the companies were selected to participate; questions included:

- How much time do you spend on Source each day, and is that time increasing or decreasing?
- Why do you visit Source and what types of activities are you performing once you get there?
- How do you find specific areas or content on Source (search vs. megamenu vs. landing pages, etc.)?

- What additional capabilities would you like to see on Source?
- How can we help you better understand Source to make it easier to use?

In February 2015, Lunch and Learn webinars were offered to all employees so the team could share additional tips and tricks to help users get their work done more quickly and easily. The webinars included video demonstrations on how to use the people and content search functionality, how to perform top tasks (such as find specific manuals and forms), and how to post in the *Social* section. They team also gave participants the opportunity to ask questions and provide feedback.

Those tools, resources, and presentations all helped educate users on how to use the new intranet and how it will help them perform their roles. "Education helped users embrace the new intranet," says Stephens. "In addition to providing support to employees, the education sessions provided valuable feedback and opportunities for improvement. Now, an introduction to *Source* is included in the onboarding program for all new employees."

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
Palmer Anderson Web design and app development	• Collaborated with the intranet project working group to bring the intranet vision to life and develop an end-to-end solution
iMason Software consulting firm	• Developed the *Locations* page

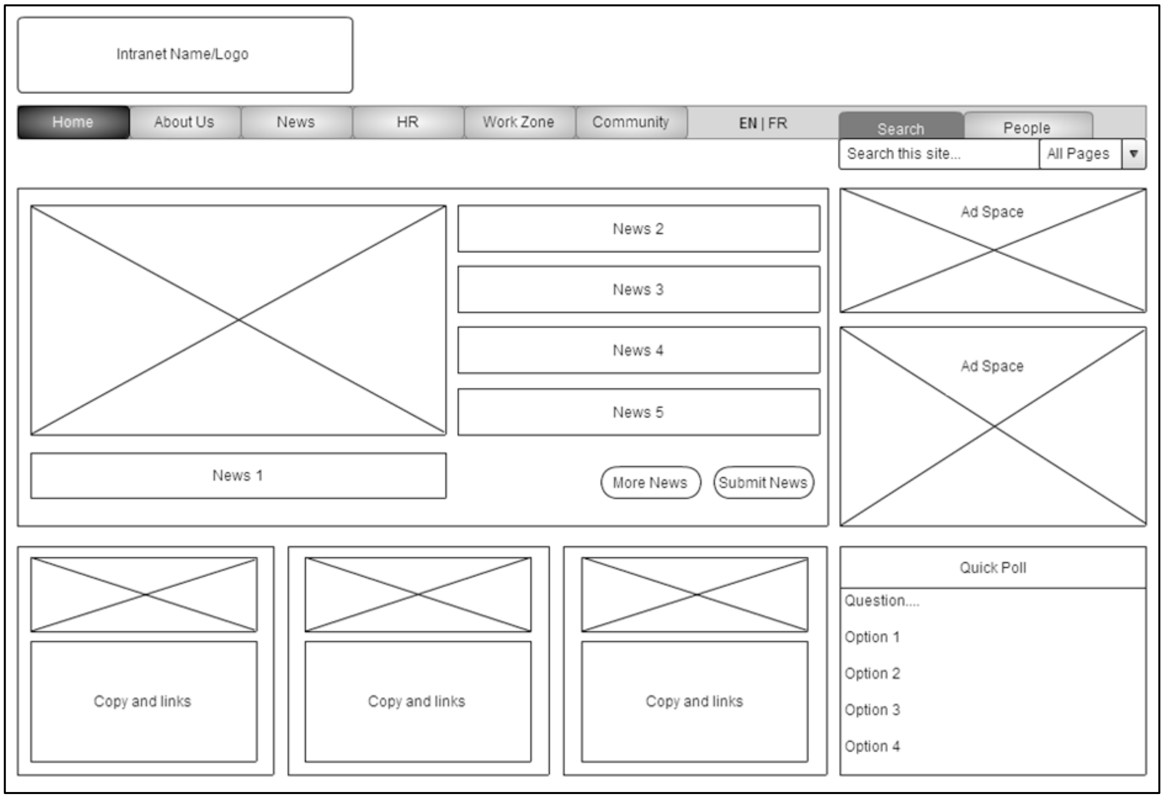


Image 45. The Co-operators Intranet: Wireframe. This wireframe shows the proposed homepage layout created in July 2013 during the design phase of the rebuild. *45_TheCooperators_19_HomepageWireFrame_version1.png*

GOVERNANCE

The Co-operators Content Strategy and Publications team has oversight of the intranet. They lead the strategy, development, implementation, and management of intranet content. The Web Development team provides support in maintaining the intranet by resolving production issues and implementing enhancements.

To ensure adherence to the governance structure, SharePoint permission groups were created to specify different intranet access levels according to the individual's role. Following are examples of three of the permission groups:

- **Source Visitors:** This group has access to see and read content published and approved on the intranet. All employees are included in this group.
- **Source Members:** This group has access to contribute to and edit intranet content, but they cannot publish or approve any of their changes to make them live to all users. Select members of the Translation team are included in this group, as they occasionally need to make changes to French content, but the Content Strategy and Publications team must approve those changes before they going live.

- **Source Owners:** This group has full control of the intranet and are able to edit, remove, and approve content. This exclusive group includes members of the Content Strategy and Publications team and the Web Development team.

"Maintaining ownership within a single team ensures all accountabilities are clear," says Stephens. "With set processes in place, any requested changes are considered for strategic fit and prioritized, which ensures the site maintains its clean, organized structure."

SourceBook was created as a reference document for users. It is a guidebook on how to use Source and is updated as the intranet evolves. This resource clearly outlines the processes and provides guidelines on finding, posting, submitting, writing, and translating content; it also helps employees understand the governance.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Content Strategy and Publications Team	• Lead the strategy, content, and alignment of the Source intranet • Co-ordinate development of Source, including content and technology • Post bilingual content on the intranet based on publishing standards • Provide training and support related to using the intranet efficiently to employees across the organization • Execute user acceptance testing
Web Development Team	• Analyze business requirements, deliver clear and concise documentation and functional specifications, and work to deliver solutions • Implement enhancements and new developments on Source, troubleshoot issues, and execute system integration testing to increase quality across the organization
Content Owners	• Own the content on their pages and maintain it over time

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://source-cooperators.ca
Default Status	• Source is set as users' homepage, which automatically launches when they log on to their computers. This setting cannot be changed.
Remote Access	• Users with a corporate laptop or cellphone can access the intranet wirelessly on VPN; employees traveling for work, such as advisors, district management teams, and executives, often use this option.
Shared Workstations and Kiosks	• The organization does not have shared workstations or kiosks; however, employees can access the intranet on another employee's workstation using their unique ID if they are configured to the organization's network.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
Late 1990s	• Introduced the first corporate intranet, *Co-op Online*, to electronically publish manuals, forms, and training materials
December 2002	• Redesigned and relaunched the corporate intranet as *The Source*, with a new look, easier navigation, drop-down menus, and improved organization
2004	• Updated The Source with new portal technology that let individual companies build their own pages
May 2012–October 2012	• Conducted surveys and research to prepare a business case
December 2012	• Received a mandate with the approval of the business case

December 2012–March 2013	• Set governance, defined the project scope, and gathered requirements
March 2013	• Held kick-off meeting for intranet rebuild project
May–August 2013	• Gathered additional user research through surveys
September 2013–May 2014	• Developed the site and conducted quality assurance testing and training
May 27, 2014	• Relaunched the intranet as *Source* on SharePoint 2013
August 2014	• Implemented enhancements to improve search functionality
January 2015	• Redesigned the news landing page to provide a comprehensive view of recent articles
June 2015	• Introduced two new *People Recognition* tabs in the *Social* section to recognize educational achievements and appointments within the organization
Overall redesign time frame: 17 months (December 2012–May 2014)	

Image 46. The Co-operators Intranet: First Corporate Intranet. Co-op Online was introduced to electronically publish manuals, forms, and training materials. *46_TheCooperators_20_CoopOnlineHomepage_version1.png*

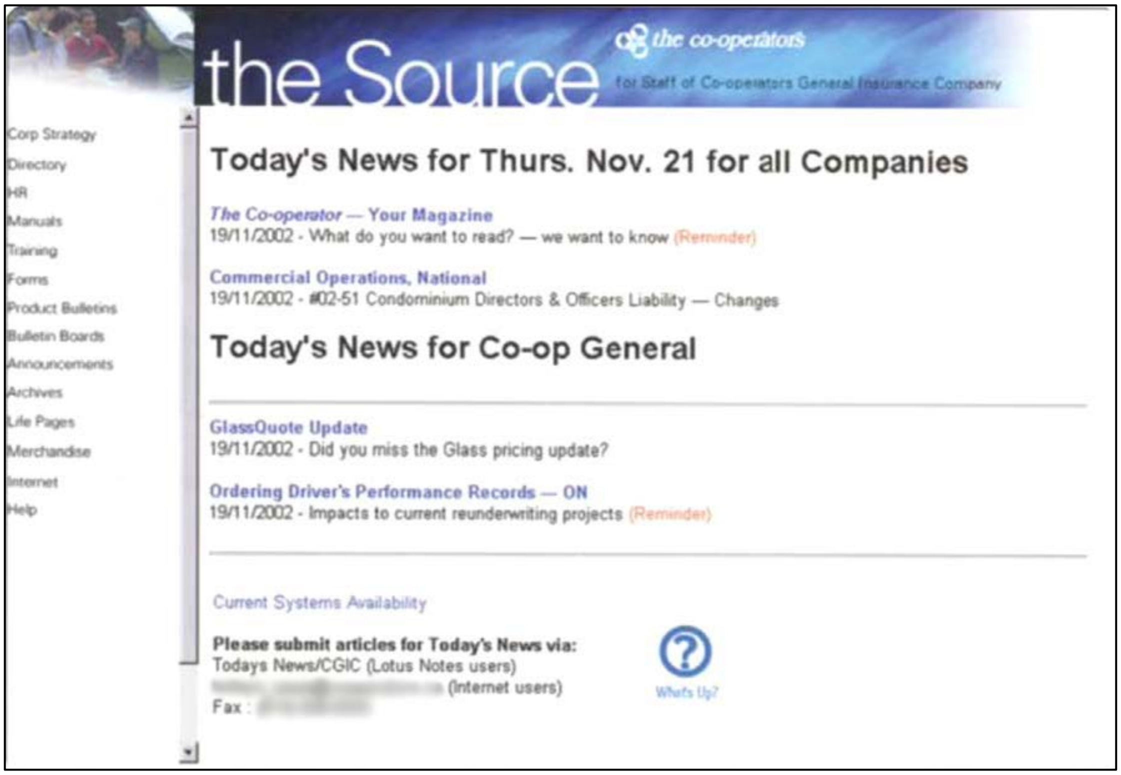


Image 47. The Co-operators Intranet: Corporate Intranet Redesigned and Relaunched in 2002. The Source featured a new look, easier navigation, drop-down menus, and improved organization.
47_TheCooperators_21_TheSourceHomepage_version1.png

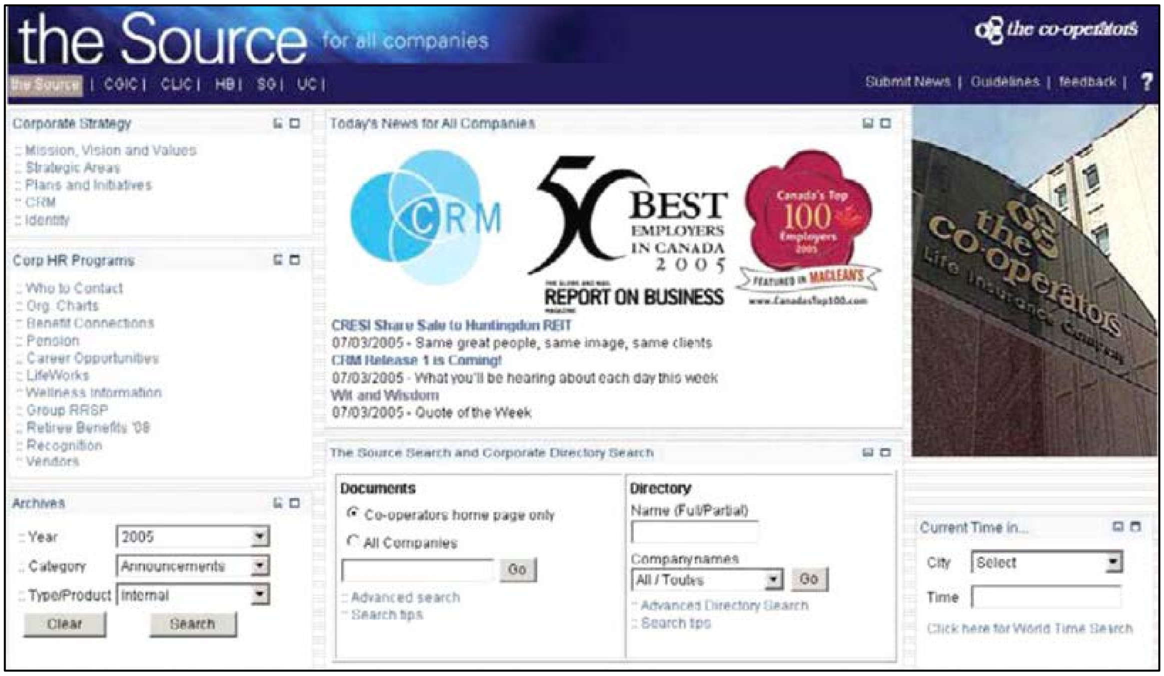
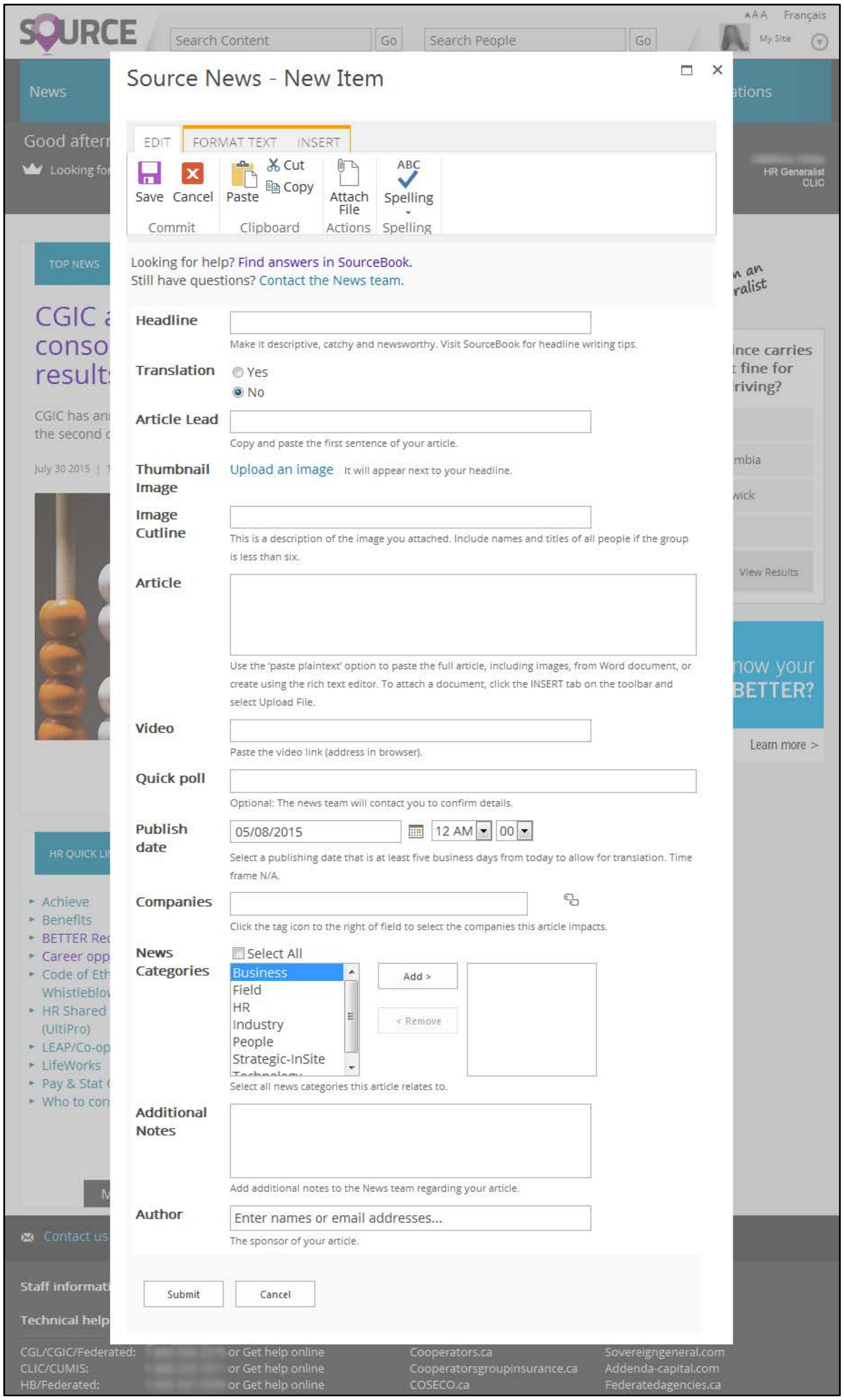


Image 48. The Co-operators Intranet: 2004 Version of The Source. This version of the corporate intranet was updated with new portal technology that allowed individual companies to build their own pages.
48_TheCooperators_22_Homepage_version1.png

CONTENT AND CONTENT CONTRIBUTORS

CONTENT MANAGEMENT	
Contributors	Any employee can submit content for posting on Source news. This ensures that subject matter experts are submitting content related to their business area and that all company functions and locations are represented. Corporate Communications team members also actively contribute content for Source. Communication Consultants are assigned to lead the strategic communications plans for internal programs and initiatives and prepare news articles and quick polls for Source as part of their role.
Contribution	The news submission form is accessible on the homepage and in the site footer. In the form, employees input the headline, lead paragraph, article copy, publish date, and other notes; the form is then sent to the Content Strategy and Publications team, which reviews the article, edits it (if necessary), decides on placement, and then publishes it.
Training	Prior to launch, employees who frequently submit news content received training on SharePoint news. The webinar provided a sneak peek at the new intranet, explained the homepage's *Top News* section and the criteria for selecting featured articles, and outlined changes to the news submission process.
Management	The Content Strategy and Publications team receives all requests for new content or revisions; it always follows a team workflow process: • The content is initially reviewed for any issues that must be resolved with the contributor (for example, if information is missing or the requested publish date does not align with the time required for translation). Once any issues are resolved, a primary copy edit is completed. • The content is then submitted to the translation team, which might require up to three days to produce a copy of the article in French. • Another member of the team conducts a final review prior to posting.
Maintaining Quality	Having the governance of Source under one team allows the organization to effectively manage all content and ensure that consistently high-quality content is published.

Culling Content	To reduce the amount of intranet content, team members began the process by conducting a content inventory of its existing site. By cataloging all pages within The Source legacy intranet in an Excel workbook, they were able to get an overview of all content and the respective owners. Once the inventory was complete, they conducted a content audit to determine which content was still of value. Consulting with subject matter experts in each business area, they determined which content would be moved to the new Source and where it would fit within the new site structure. This is an ongoing initiative, as the team works toward reducing and eliminating other platforms and freeing up server space.


SOURCE
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Go
Search People
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News
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HR Generalist
CLIC
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Source News - New Item
EDIT
FORMAT TEXT
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Cancel
Commit
Cut
Copy
Paste
Clipboard
Attach File
Actions
ABC
Spelling
Spelling
Looking for help? Find answers in SourceBook.
Still have questions? Contact the News team.
Headline
Make it descriptive, catchy and newsworthy. Visit SourceBook for headline writing tips.
Translation
Yes
No
Article Lead
Copy and paste the first sentence of your article.
Thumbnail Image
Upload an image
It will appear next to your headline.
Image Cutline
This is a description of the image you attached. Include names and titles of all people if the group is less than six.
Article
Use the 'paste plaintext' option to paste the full article, including images, from Word document, or create using the rich text editor. To attach a document, click the INSERT tab on the toolbar and select Upload File.
Video
Paste the video link (address in browser).
Quick poll
Optional: The news team will contact you to confirm details.
Publish date
05/08/2015
12 AM
00
Select a publishing date that is at least five business days from today to allow for translation. Time frame N/A.
Companies
Click the tag icon to the right of field to select the companies this article impacts.
News Categories
Select All
Business
Field
HR
Industry
People
Strategic-InSite
Add >
< Remove
Select all news categories this article relates to.
Additional Notes
Add additional notes to the News team regarding your article.
Author
Enter names or email addresses...
The sponsor of your article.
Submit
Cancel
ations
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fine for
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BETTER?
Learn more >
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Benefits
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(UltiPro)
LEAP/Co-op
LifeWorks
Pay & Stat
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or Get help online
Cooperators.ca
Cooperatorsgroupinsurance.ca
COSECO.ca
Sovereigngeneral.com
Addenda-capital.com
Federatedagencies.ca

Image 49. The Co-operators Intranet: News Submission Form. Any employee can submit news using the submission form, accessible on the homepage and in the site footer. Employees input a headline, lead paragraph, article copy, publish date, and other notes; the form is then sent to the Corporate Publications team.
49_TheCooperators_23_NewsSubmissionForm_live.png

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Application Platform	• Microsoft SharePoint 2013
Web Server Hardware	• Microsoft IIS
Bug Tracking	• Microsoft Team Foundation Server
Programming Language	• .NET

The following criteria were considered when evaluating different technologies to try to determine what intranet platform would best suit the organization's needs:

- Cost savings in technology and resources
- Personalization
- Consistent user experience
- Increased online functionality
- Enhanced collaboration
- Unified technology

Achieving these outcomes with the new intranet reduced expenses and also promoted employee engagement, efficiency, and productivity, which ultimately led to increased competitiveness and superior client service.

Choosing SharePoint made sense as it combines various functions that would normally require separate applications into a single platform. These functions include web content management, document management, enterprise search, and an application store. "SharePoint also integrates well with all of the other workplace software used at The Co-operators," says Stephens. "This platform created a single user experience, connecting people and work processes across The Co-operators Group of companies, which was the purpose of The Source rebuild project."

RESULTS AND ROI

One objective of the intranet rebuild was to create a consistent user experience by moving to a standard CMS platform for all content across the group of companies. Although this goal will take several years to fully achieve, over time it will reduce the higher licensing fees, maintenance costs, resource requirements, and training efforts associated with using multiple CMSs. As the number of platforms phase out, the organization will see a return on investment.

Intranet traffic is measured on a monthly basis to determine both successes and opportunities for improvement. Since launch, users are consistently viewing news articles and comments continue to increase. The *Work* section receives the highest usage, which demonstrates that employees are using the intranet for task-focused activities to complete their work.

On the day Source launched, the rebuild team received 173 emails and phone calls for assistance using the new platform. Through education and support, the number of inquiries decreased significantly. The team still receives occasional questions on where to find certain content, but the majority of the emails now are suggestions for enhancements to improve the intranet. This change in activity demonstrates that users understand how Source benefits them and will continue to evolve to meet their needs.

LESSONS LEARNED

The Source team learned several key lessons throughout the rebuild process:

- **Never underestimate the demands of change management.** "While we had a comprehensive change management and communication plan in place, we still underestimated the amount of change management that would be required after launch. It was a challenge to prepare people for something they couldn't see or actively use in advance. Although we provided communication and education using a variety of mediums, people did not fully grasp the change until the new intranet was live."
- **Get feedback and provide training on site content, especially on key or complicated site areas.** "A big learning was not getting enough feedback about the news section. Because we are an organization made up of several companies, we needed to design a news area that publishes all news in one place — yet, we have a huge volume of news, so readers need to quickly find what's relevant."
- **Test layout and design with users.** Although team members tested category groupings and made changes accordingly, they did not test the news section's layout and design. "Users were confused about the way it functioned and how to organize the content. They worried they were missing important news." This shortcoming was highlighted five months after launch, when the team conducted focus groups and posted a Source survey asking for employee feedback on the news layout. "We gave employees a choice, and approximately 80% of respondents preferred a chronological view rather than the 'pin-box' style view, so we changed it shortly after the survey was posted."

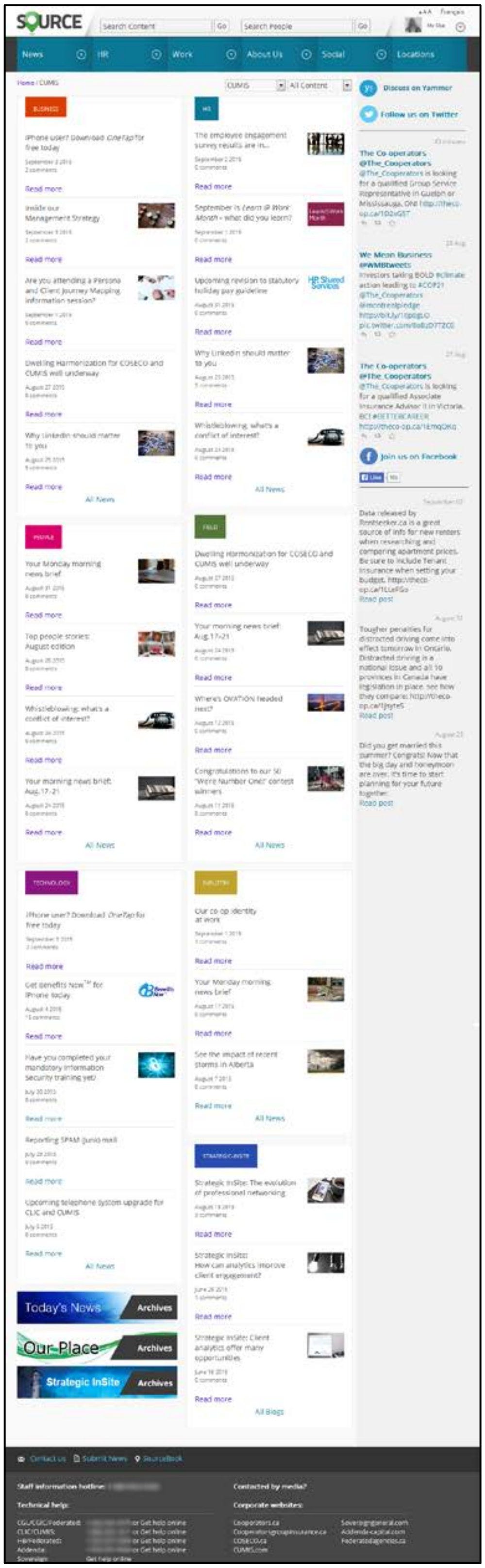


Image 50.
The Co-operators Intranet:
News Page, Version 1. When Source relaunched in May 2014, the *News* landing page had a pin-box style view. However, focus groups and employee surveys showed that users had a hard time following news with this pin-box style view, so the team changed it to a chronological view (see Image 30).
50_TheCooperators_24_News_version1.png

dorma+kaba

OVERVIEW

COMPANY

DORMA is part of the newly formed dorma+kaba Group, whose 16,000 employees produce and market door technology systems and allied products around the globe.

In September 2015 DORMA merged with Kaba Holding AG and the new company is now called dorma+kaba, however this case study was written about the DORMAworld Social Intranet prior to the merger, so throughout this case study we refer to the company as DORMA.

Headquarters: Ennepetal, Germany

Company locations: DORMA Group is represented in more than 50 countries and maintains major production plants in Europe, Singapore, Malaysia, China, and North and South America.

Locations where the intranet is used: Employees at all DORMA locations use the DORMAworld Social Intranet.

Annual sales: The DORMA Group generated (according to IFRS consolidated) sales amounting to €,109 million.

THE INTRANET

Users: Essentially all DORMA employees — approximately 7,500 — are accessing the new social intranet. This gives them access to all communication and collaboration information instantly, as well as to an internal social network that lets them connect with and share stories with other DORMA employees around the globe.

Mobile approach: Responsive web design and a native mobile app for iOS, Android, and Windows Phone.

Technology Platform: Office 365, Azure, SharePoint Online, Yammer

TEAM

Leadership: Adrian Gagala, Group IT; Stephanie Bolsinger, Group Communications

Communications: Sabine Fuhrmann, Alexander Wood

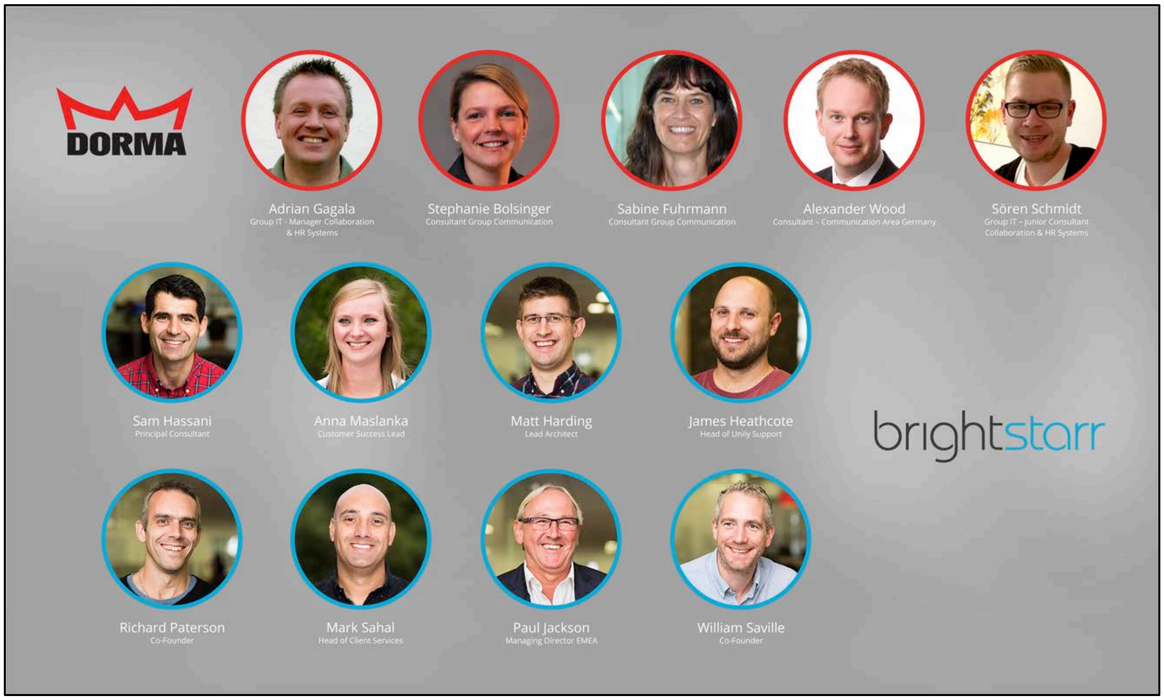
IT: Sören Schmidt, Geoff Stone, Jeff Lo, Markus Braun, Göran Kelch, Tim Bergmann, Dennis Schroeer, Jens Enssen, Bernd Döring, Lara Klein

Communication Heroes NEE: Paul-Olivier Raynaud-Lacroze, Katrina Hazard, Audrey Esmery, Magali di Iorio, Renée Rädler, Matilda Lindblom, Ann Knutson, Christel van Opstal, Nadezhda Yatskova

Branding: Angelika Wesselkamp

Agency: BrightStarr Ltd.

INTRANET TEAM



Team members shown here (left to right, top to bottom) DORMA: Adrian Gagala, Stephanie Bolsinger, Sabine Fuhrmann, Alexander Wood, and Sören Schmidt; BrightStarr: Sam Hassani, Anna Maslanka, Matt Harding, James Heathcote, Richard Paterson, Mark Sahal, Paul Jackson, and William Saville.

HIGHLIGHTS ABOUT THIS WINNER

Using BrightStarr's Unily Intranet as a Service product, the DORMA team transformed the intranet in just 60 days. With two big events looming, the team was tasked with creating a social intranet that supported intuitive access to information, changing the way the company communicated and provided access to innovation. For the project to succeed, DORMA's global audience needed both support and encouragement to collaborate and communicate in new ways on the company's first social intranet.

- **A New Social Intranet:** The new intranet's social element has been a huge success and has changed communication within the organization. It met with rapid acceptance and adoption around the world, starting real conversations and connections among employees. One of the key drivers of the site's success was the CEO, who acts as both promoter and power user, truly leading the company by example.

In addition, the intranet was developed in advance of two major events: the International Group Conference and the BAU trade fair for architecture, materials, and systems. This proved advantageous to the social intranet, which launched just in time to support the events and offered a perfect platform for disseminating the content they generated. This timing provided the necessary momentum to get content flowing from the start, and the solution's intuitive nature meant that little guidance was needed.

- **Inclusive Design Process:** Even with only 60 days to get the new site up and running, the team wisely recognized that intranet development is often headquarters-centric and thus misses or overlooks the needs of those in other locations or offices. To avoid this, the team included feedback from the North Eastern Europe (NEE) group, which was part of the social intranet project's pilot phase.
- **Communication Heroes:** Many intranets don't connect content creators, let alone form a group for them with shared ideals and an exciting name. DORMA social intranet isn't most intranets, however. Content contributors are part of a unique group called *Communication Heroes*. They share best practices and lessons learned in a Community of Practice team site and serve as SharePoint advocates and change agents in the organization. DORMA's intranet team recognizes the importance of content creators and supports them accordingly, while also seeing their potential as influencers of intranet usage and adoption throughout the organization.

  Being part of a group — particularly one with such an invigorating name — can facilitate a sense of community among content creators, offering them organizational support and recognizing the excellent work they do for the organization as a whole. At DORMA, the team comprises individuals from a variety of backgrounds around the organization, though most of the more than 40 Communication Heroes have a background in HR.

BACKGROUND

A highly visible company-wide event can fuel momentum for an intranet overhaul. That was DORMA's situation in late 2014, as the company's internal International Group Conference and the global trade fair, BAU, were looming. These events are the platform through which DORMA launches new products, and the Global Executive Committee (a key intranet stakeholder) wanted to use them as catalysts for revamping the intranet to positively impact the way the company will innovate into the future.

The result was DORMAworld Social Intranet. This new platform was designed to replace numerous disparate solutions and provide "Access to Innovation," becoming the centerpiece of a new digital era for the organization. The bold mission statement of this new era — "Be informed. Get connected. Get the job done." — is meant to inspire open innovation and collaboration around the world. The social intranet also aims to help DORMA further its efforts in idea generation and innovation within various corporate divisions.

“We wanted to promote communication and the exchange of ideas and wanted to give every employee access to the full scope of available information,” says Adrian Gagala, Group IT—Global Applications Manager Collaboration & HR. “In addition, giving all our employees a voice was a really important aspect [of the project]. We wanted to transform our classic intranet from a traditional top-down approach to a place where top-down meets bottom-up communication. The meeting point of those two elements would allow users to feel the vivid pulse of the company instantly, every day.”

With only 60 days to complete the project — one that requires a great cultural shift for the company’s workforce — the team let one simple principle direct their efforts: *bring order to complexity*.

DESIGN REVIEW

Homepage

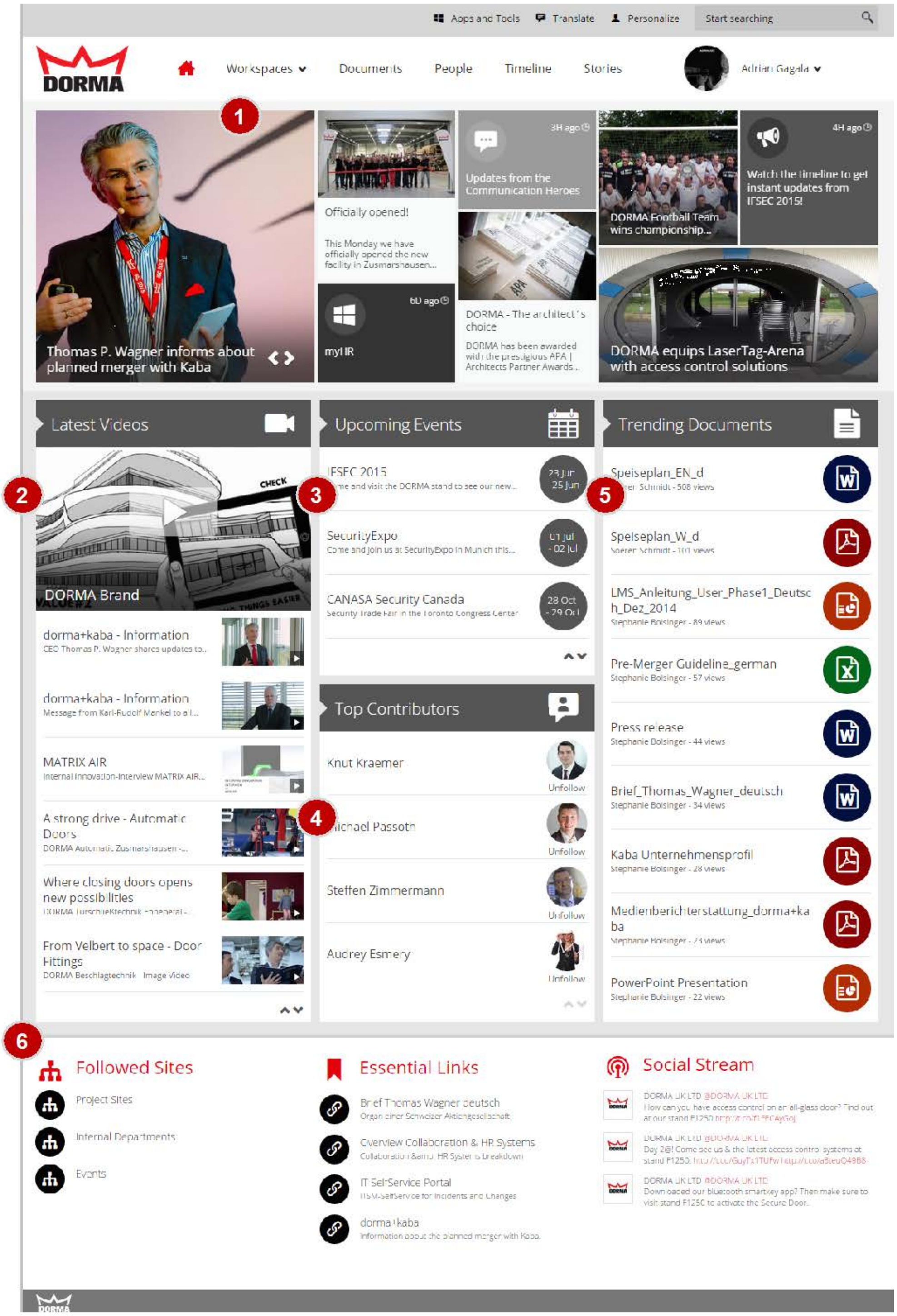


Image 51. DORMA Intranet: Homepage. *51_DORMA_01_Home_Live.png*

Homepage Highlights

1. **Targeted News:** The homepage features a dynamic smart feed of targeted news and insights based on the user's role, location, and personal preferences. This personalization lets users choose tags for functions, topics, location (area and region), and so on. A featured news story appears on the left in a small content carousel, which can be navigated via the arrows in the item's bottom right corner. Each story includes a picture and a headline. Other items at the top of the page include additional news stories and company updates, such as notifications about new and updated content for various areas, including news, HR, and Communication Heroes.
2. **Latest Videos:** Video content is common on the intranet, and the homepage highlights this quick form of communication. The homepage shows the latest videos, along with brief descriptions and representative stills.
3. **Upcoming Events:** The homepage calendar shows event names, along with brief descriptions and dates. Users can page up or down through items via the arrows at the bottom of the section.
4. **Top Contributors:** This area recognizes those who are creating content or commenting the most on the site. This prominent recognition has several purposes. First, it indicates to employees around the world that the organization values intranet contributions. Second, recognition is a simple form of gamification that can motivate others to compete for a top spot, which encourages knowledge sharing and connection building among colleagues. Each contributor is listed by name and photo, with options to use Yammer to *Follow* or *Unfollow* each contributor.
5. **Trending Documents:** This section lists the intranet's most popular documents, which can help employees get a sense of what's new and trending on the site. The Canteen menu is one of the most commonly listed pages.
6. **Footer:** The bottom of the page provides quick access to important information. The footer includes *Followed Sites*, which lists SharePoint subsites that the user is following; *Essential Links*, which has important corporate information; and *Social Stream*, which shows the company's public Twitter feed.

Workspaces

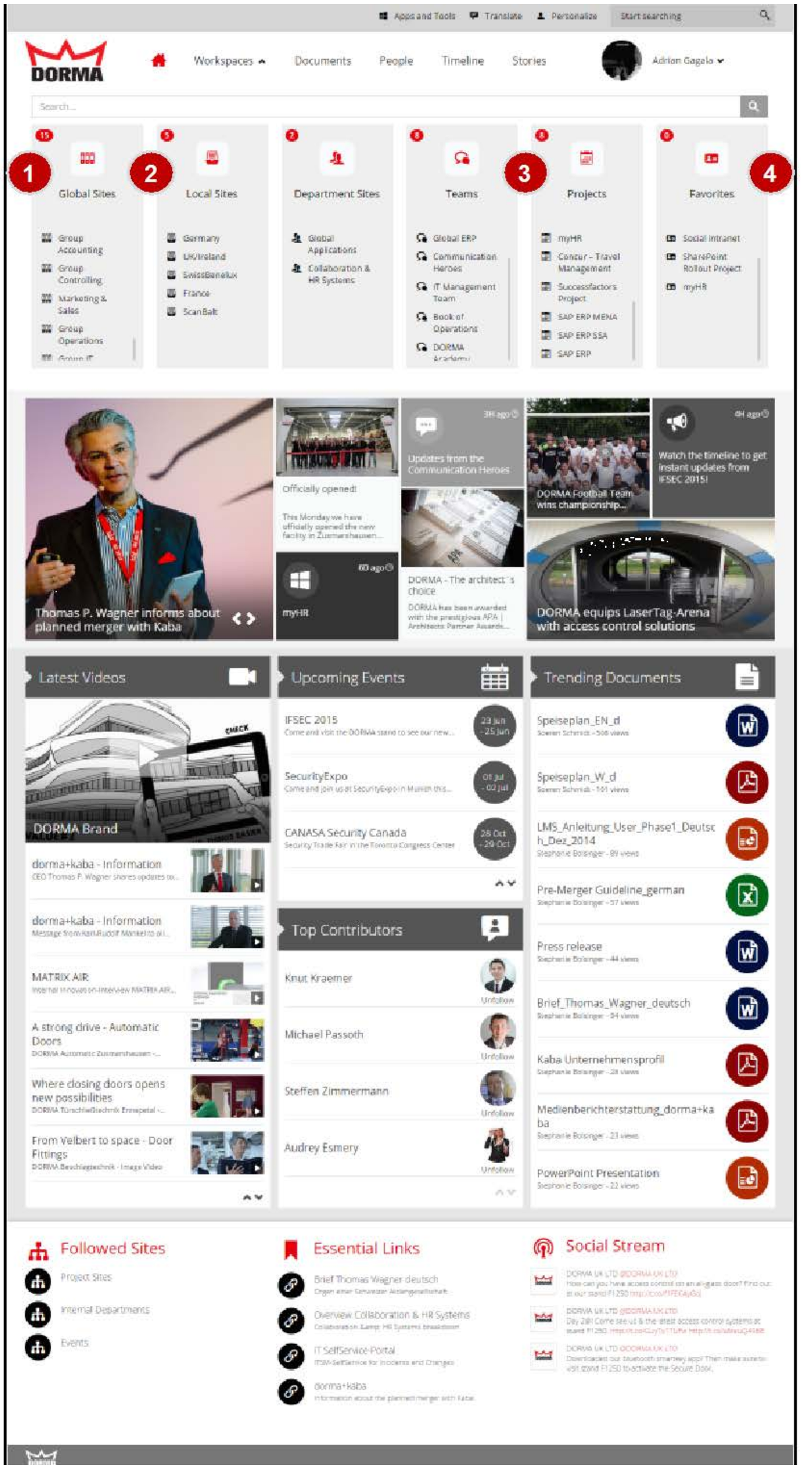


Image 52. DORMA Intranet: *Workspaces*.
52_DORMA_02_Workspaces_Live.png

Workspaces Highlights

1. **SharePoint Content:** *Workspaces* is a dynamic site section that lets users navigate directly to SharePoint content. This gives them quick access to sites they are following, including *Global Sites*, *Local Sites*, *Department Sites*, *Teams*, *Projects*, and *Favorites*. The structure conforms to the company's organizational structure.
2. **Common Links:** *Global* and *Local* sites are visible for all users, giving them quick access to key departments and information specific to different regions or countries.
3. **Personalized Links:** *Department*, *Teams*, and *Projects* vary by user and role. These links lead to collaboration spaces on the site.
4. **Favorites:** The *Favorites* feature lets users add their own set of links to the navigation bar.

Timeline

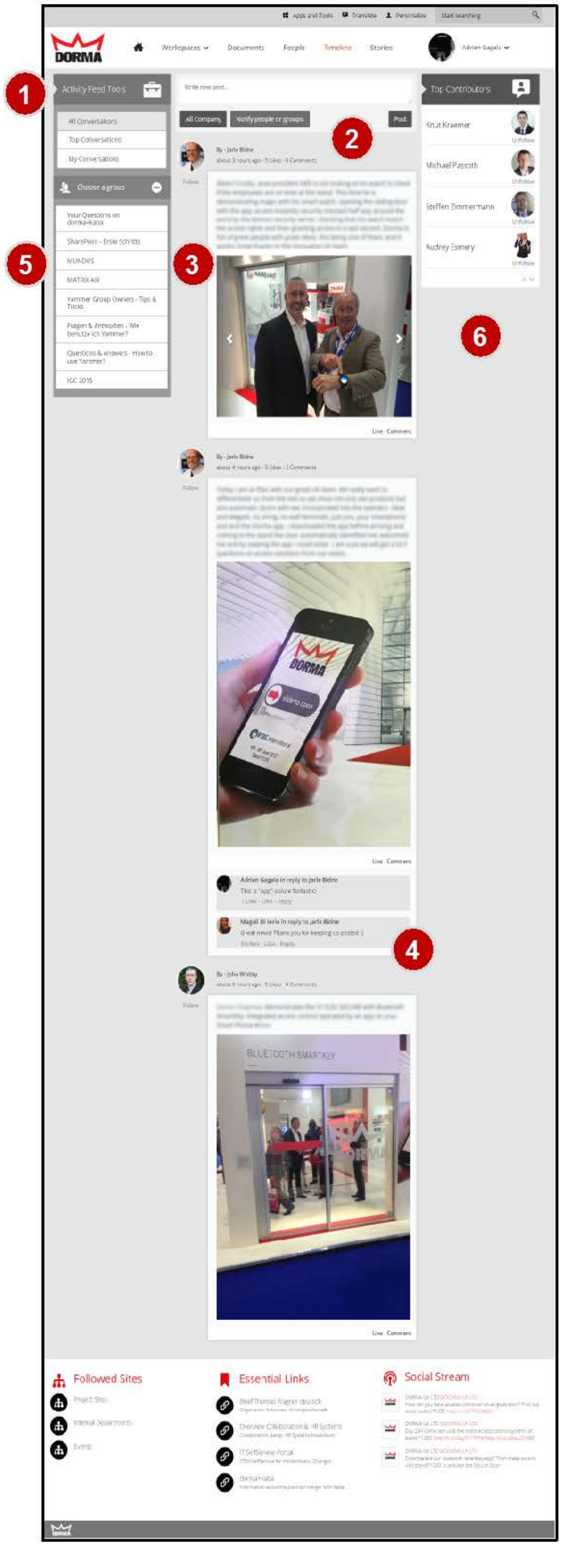


Image 53. DORMA Intranet: *Timeline*.
53_DORMA_03_Timeline_Live.png

Timeline Highlights

1. **Social Wall:** *Timeline* acts as a social wall for users, showing all Yammer feeds and conversations across the intranet. Yammer has been a huge success, with users sharing content from around the world and discussing topics such as new showroom openings, new products, and reports from customer projects. Currently, 65% of users with regular PC access are on Yammer. This social sharing allows colleagues to get to know each other regardless of their office location.
2. **Posting Content:** Users are invited to post at the top of the page, with a simple invitation to "*write new post…*" in an open field. This simple prompt, followed by a *Post* button, makes sharing content simple and easy for even novice users. No intimidating form, rules, or processes — just a simple invitation to share. Clearly labeled buttons let users choose to share with the entire company or with specific people or groups within the organization. The tool also lets employees share pictures and video files directly to the Yammer Network.
3. **Posts:** Posts are listed with the most recent first. The author's picture and name are shown along with a timestamp, showing either the number of hours since content was posted (if it was posted that day) or the number of days since it was posted (if it was posted on a previous day). The number of likes and comments are also listed. At the bottom of each item, users can "like" or comment on the post, offering an easy way to introduce users to posting social content on the site. A "like" is easy to do, and responding to content via a comment can be much simpler than creating content to post. Such options can ease reluctant or unfamiliar users into using social tools.
4. **Commenting:** If comments exist for the item, the user sees the most recent comments, which can be liked or replied to.
5. **Views:** The side of the page lets users select which conversations to view, including everything in the feed, the most recent additions to popular conversations, or only conversations in which they are participating. Users can also view content specific to particular groups.
6. **Contributors:** Top contributors are shown on the side of the page as well, with the option to *Follow* or *Unfollow* them.

Translation

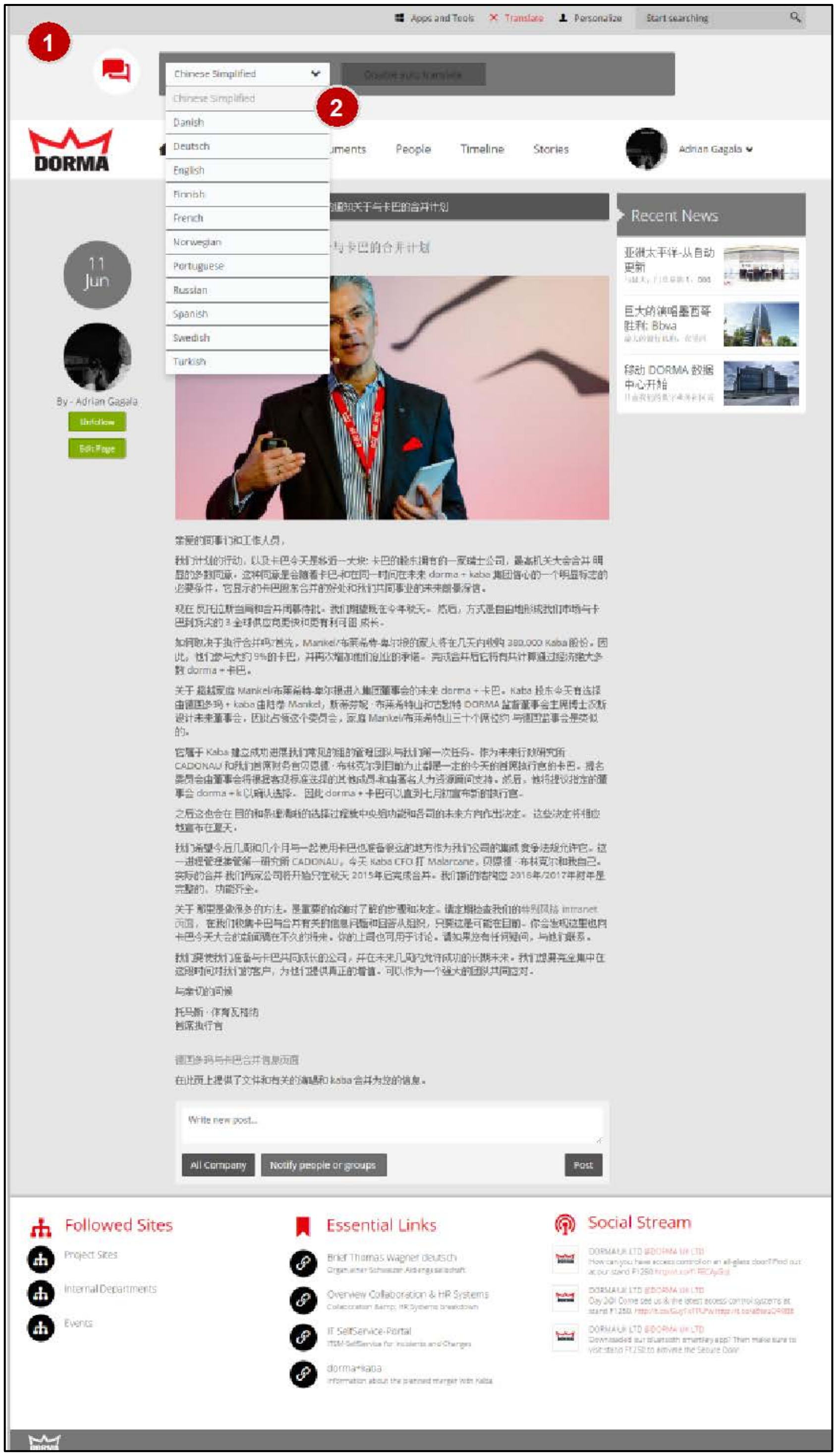


Image 54. DORMA Intranet: Translation.
54_DORMA_04_Translation_Live.png

Translation Highlights

1. **International Audience:** DORMA operates in more than 50 countries, so the intranet's audience is truly international. To support such a diverse audience, essential information — such as HR — is translated into various languages for employees. The social intranet also supports content in English, French, and German, so employees can post in their preferred language.

2. **Automated Translation:** Users have the option of translating other site content via a *Translate* link at the top of the page. When selected, a menu appears offering one-click translations into any of 12 languages: Chinese Simplified, Danish, German, English, Finnish, French, Norwegian, Portuguese, Russian, Spanish, Swedish, and Turkish. Only the article content is changed; the language used for navigation and page functions (such as links to *Post*) is based on user profile preferences.

   Although no automated translation is correct 100% of the time, the tool quickly translates content and is strong enough to give users a general idea of content that might not be available in their preferred language.

Mobile Highlights

1. **Boxy Design:** The boxy design of the intranet lends itself well to responsive design, where the boxes can simply be rearranged in a vertical orientation. The boxes also work well as larger touch targets for users on touchscreen devices.
2. **Hamburger Menu and Search:** Site navigation is accessed via a three-line menu (or *hamburger menu*) that appears in the upper left corner of the site. The search is available via a magnifying glass icon that appears in the upper right corner.
3. **Priority of Content:** Information appears in the same general order as on the site's desktop view, with news followed by videos, events, contributors, and documents. Because each section highlights only a few items, the page does not overwhelm mobile users on small screen devices.
4. **Consistent Content:** Using responsive design, the site delivers the same personalized content, information, and links in both the desktop and mobile views. The team did not edit the experience depending on the device.

Image 55. DORMA Intranet: Mobile Homepage.
55_DORMA_05_MobileHome_Live.png

Search

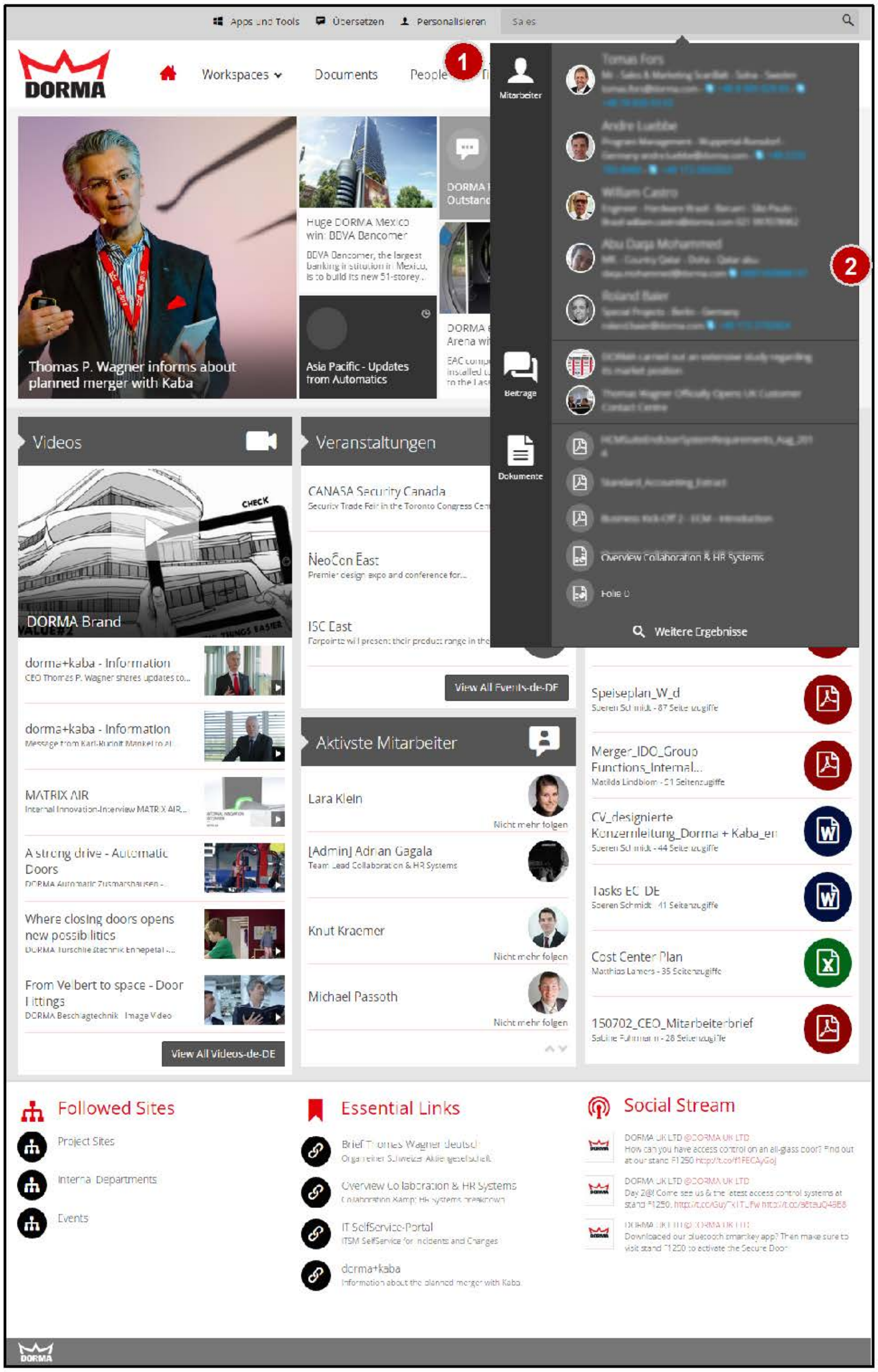


Image 56. DORMA Intranet: Search. *56_DORMA_06_HomeSearch_Live.png*

Search Highlights

1. **Search Box:** The search box appears in the upper right corner of every page of the site.
2. **Predictive Results:** The site uses Office 365/SharePoint for search. The search tool provides predictive results as the user types the query, displaying the top five hits from different categories, including people, blog/news, documents, and SharePoint sites. Each type of result is indicated on the left with a section heading. Results are differentiated with a black line between result types. Profile photographs accompany people results, images accompany social results, and document icons accompany document results.

App Launcher

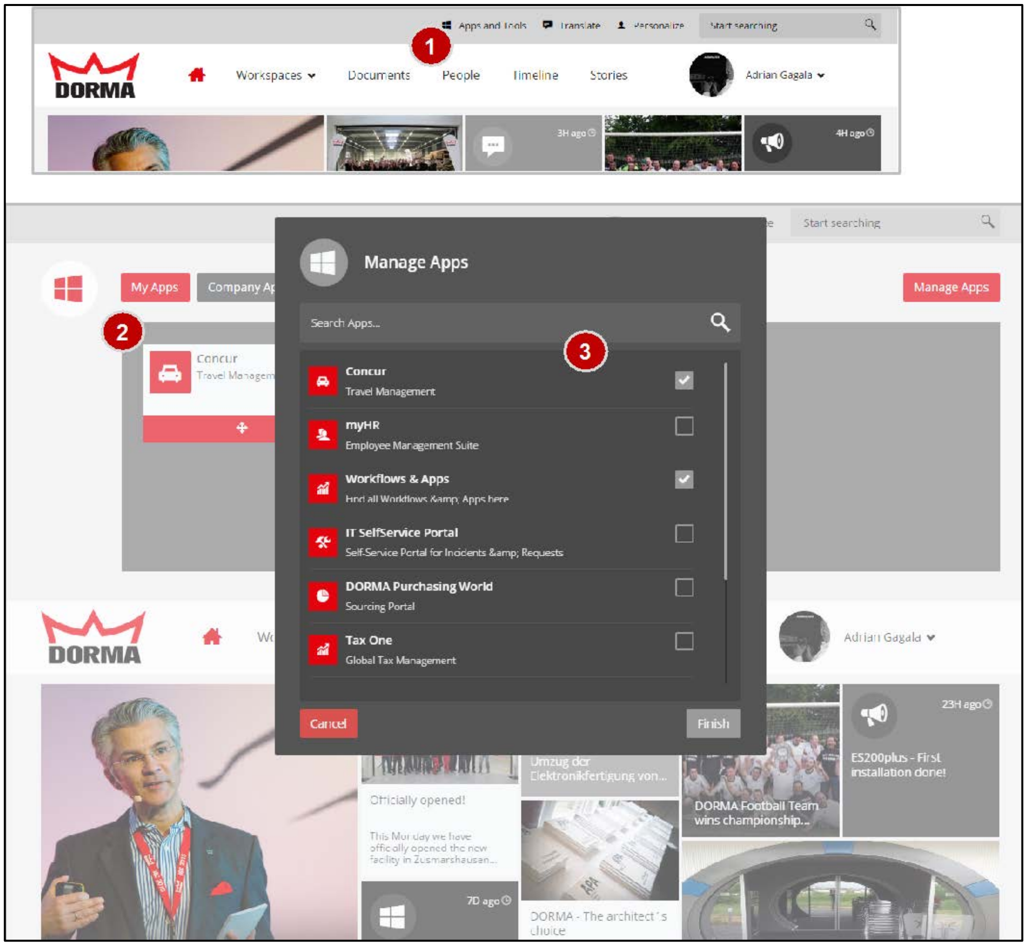


Image 57. DORMA Intranet: App Selection Tool.
57_DORMA_07_Apps_Live.png and 51_DORMA_01_Home_Live.png

App Launcher Highlights

1. **App Launcher:** The *Apps and Tools* link appears in the top bar of every page of the site. This link gives users access to any of 150 apps and workflows available through the site. The team used this approach to make the intranet the single enterprise portal through which all other digital tools are accessed.

2. **Personalized List:** Clicking the link opens a list of apps at the top of the page, divided into *My Apps* and *Company Apps*. Users can drag and drop application shortcuts around the customizable area to rearrange them, or add and remove apps via the *Manage Apps* button.

3. **App Selection:** The list of apps is searchable, so users can easily find the tools they need. Each app is indicated with an icon, app name, and brief description to help users find what they need.

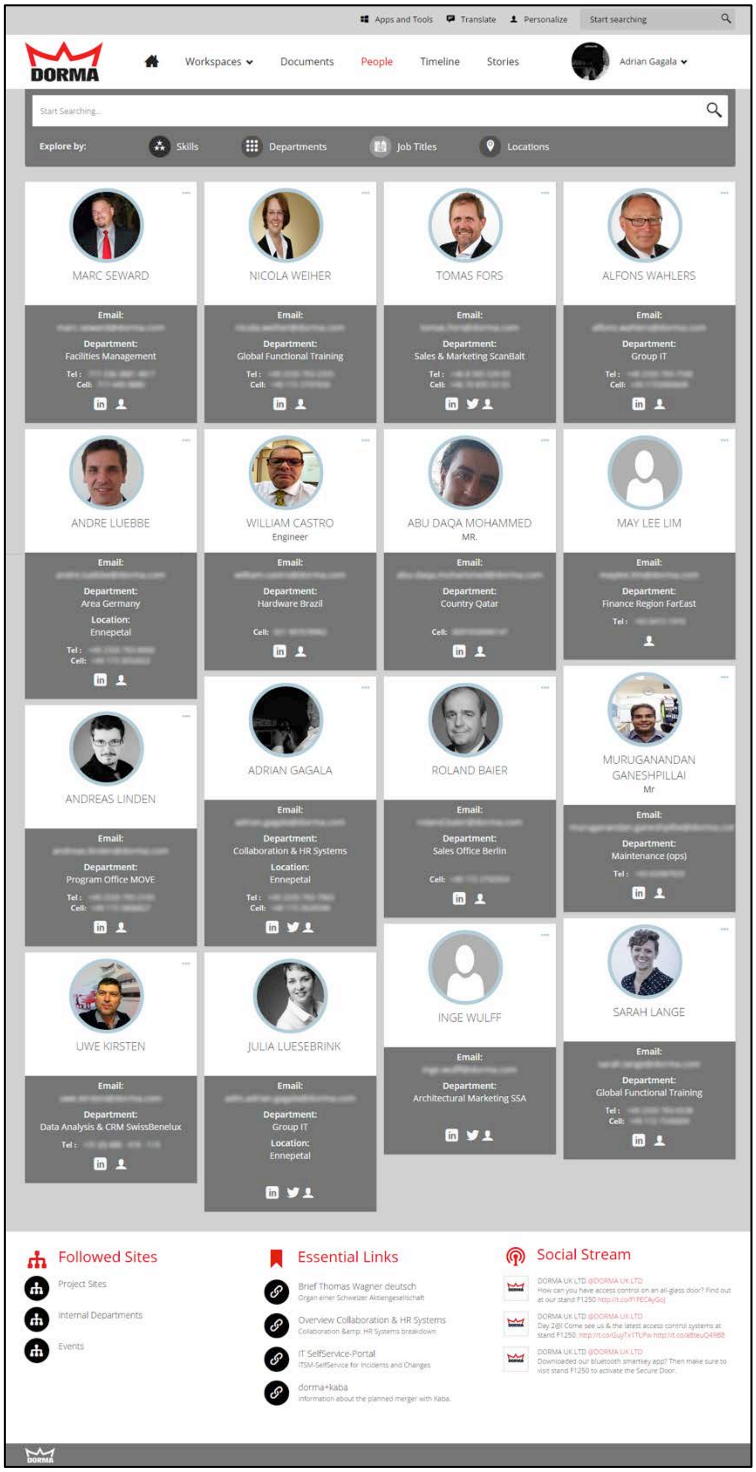


Image 58. DORMA Intranet: *People* Directory. DORMA's *People* directory rolls up all colleagues from across the business and surfaces key contact information immediately on the profile card. *58_DORMA_08_People_Live.png*

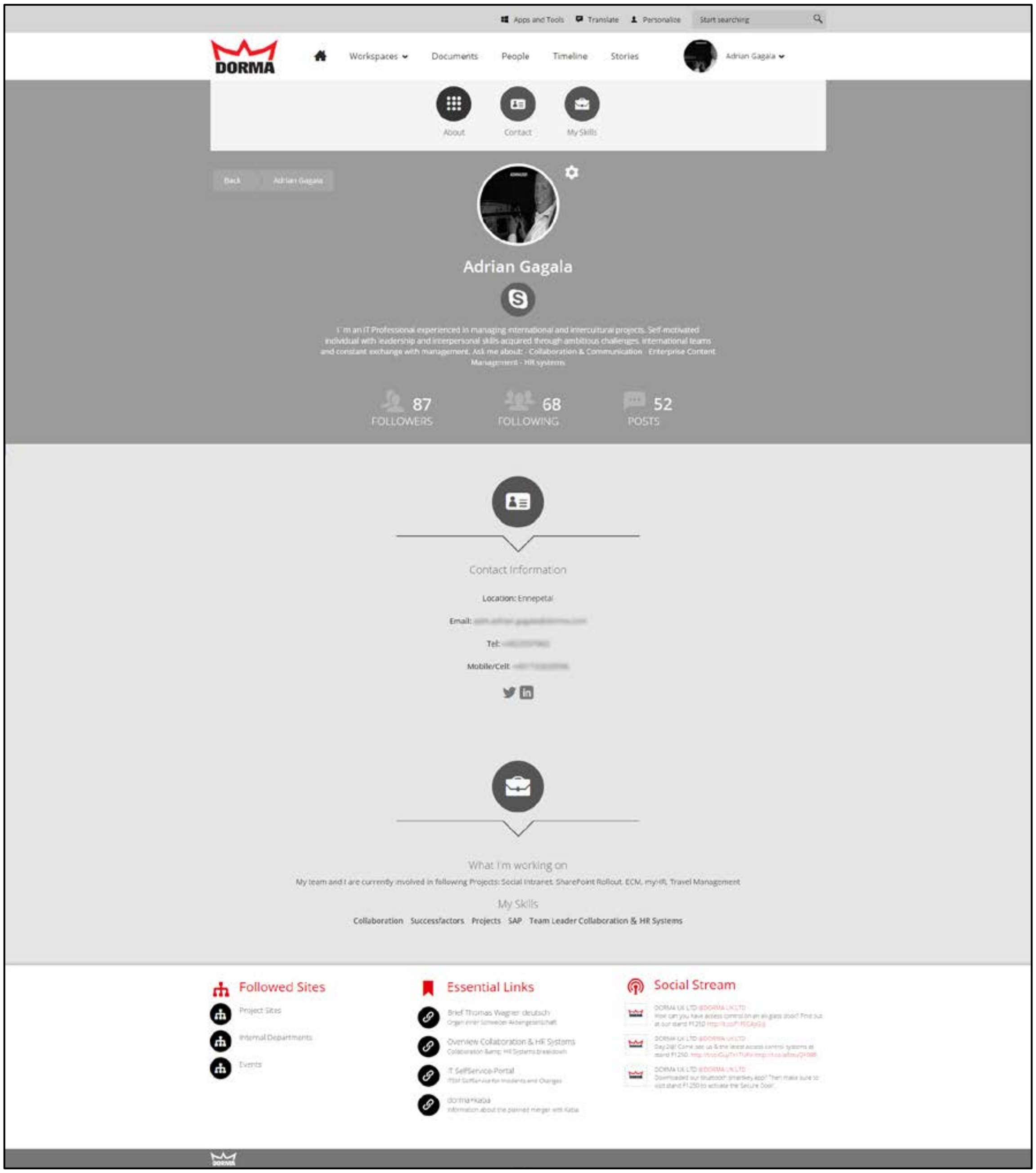


Image 59. DORMA Intranet: Profile Page. On the Unily profile page, users can showcase information about their skills, experience, and current work assignments alongside their contact information; the profile also includes a button for one-click Skype access for business calling.
59_DORMA_09_Profile_Live.png

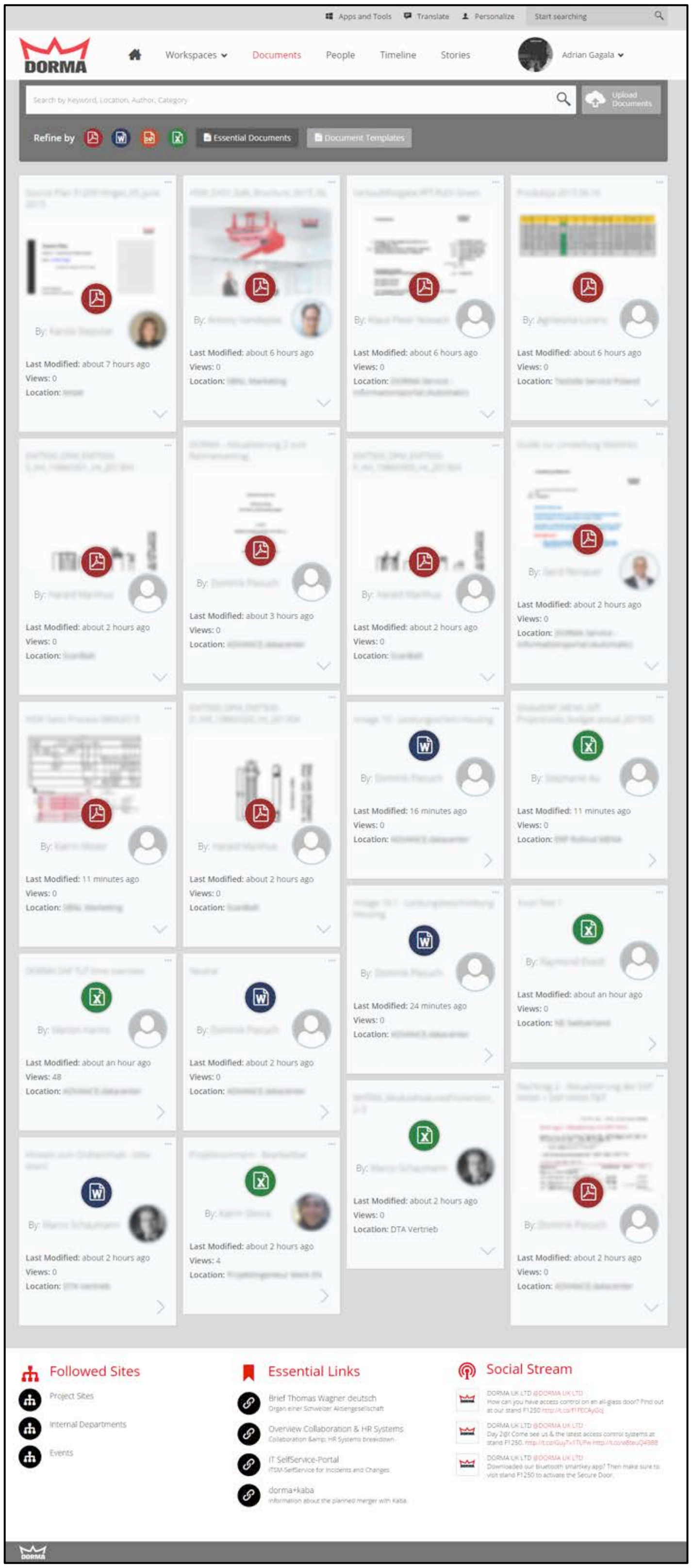


Image 60.
DORMA Intranet: *Documents* Library.
DORMA's *Documents* library shows users content from across intranet areas based on security access rights.
60_DORMA_10_Documents_Live.png

DESIGN PROCESS AND USABILITY WORK

Although the Unily solution is an Intranet as a Service offering, the Unily delivery model allows BrightStarr's consultancy and customer success teams to customize the solution to meet the requirements of each unique client. Thus, once DORMA had selected Unily as its platform of choice, BrightStarr engaged in six core activities to ensure the solution was delivered in the best way possible for DORMA's business:

- **Technical engagement:** The first element of this engagement was to ensure that DORMA's technology environment was correctly setup to deploy the Unily solution. This included establishing the single sign-on functionality (including Yammer) and synchronizing the domain user identities with Office 365.
- **Usability testing:** The team ran usability testing in workshops in an effort to understand the user groups and personas of DORMA's intranet users. Team members set out to understand and analyze things such as usage patterns and common behaviors through user journey mapping, and also sought to understand device usage and other key factors. Headquartered in Germany, DORMA has a unique culture and is also somewhat regulated in line with German workplace legislation; ensuring that technology met certain workplace requirements was thus essential to the project.
- **Content strategy:** At the start of the project, DORMA lacked a significant content strategy. The second phase of BrightStarr's engagement with project leaders and stakeholders was therefore devoted to helping them build a content structure and process that aligned with their organizational goals. This included helping DORMA segment target audiences, identify the purpose of key communication channels, define content types, and outline strategies for driving intranet adoption.

  DORMA had recently embarked on an effort to improve communication across the organization, focusing on improving content quality, increasing contributions and engagement of all employees, and creating a more global and transparent communication environment within the organization. The new communication strategy focused on identifying, training, and supporting Communication Heroes who would be instrumental in developing the new strategy and delivering its core elements. These Communications Heroes would be supported by cutting edge technology and the ability to distribute targeted, on-brand corporate news. To increase engagement, DORMA's users would be able to customize their own news stream and be given a news platform that helped them meet their local language requirements.

  The design of Unily's targeted smart feed, combined with the intuitive design of Unily's CMS system, made all of these options possible.

- **Enterprise Social:** DORMA wanted to introduce a raft of new communication functionality to its new intranet solution by including Yammer enterprise social. DORMA was acutely aware of both external and BrightStarr research on the need for a planned, governed use of social tools to drive intranet success. BrightStarr thus worked closely with DORMA to explore how Yammer could be integrated with Unily; the agency also carried out a social journey planning exercise to define priorities and use cases.

  The planning exercise involved working with end users to identify potential use case scenarios and to highlight the added value of social communication alongside existing collaborative functionality.

- **Branding:** Following the presentation and discussion of Unily's branding capabilities, it was found to meet the vast majority of DORMA's branding requirements. The platform fully supports the application of custom branding.

  BrightStarr's designers produced first-stage designs in line with DORMA's brand guidelines. Following an initial design review, several adjustments were made to ensure that the user experience perfectly reflected the company's external brand presence. These adjustments included adding sharper edges, using the DORMA red in pivotal locations to accentuate feature design, and incorporating specific DORMA icons.

- **Custom Developments:** Unily's development aligns with an understanding that 80% of requested intranet functionality is similar, if not the same, across clients of all sizes in all industries. It is the remaining 20% of functionality that makes each solution unique to the business for which it is being developed. This "80–20 rule" inspired the Unily Intranet as a Service solution; it delivers the 80% rapidly across the cloud, but is also highly customizable and configurable to reach the 100% fit that is so often sought after.

  For DORMA, the 20% customization came through the following elements:

  - Multi-lingual functionality across news content and the wider site
  - The ability to create more dynamic rollups of SharePoint subsites, such as sites that the user is a member of or that the company recommends
  - The ability to create a *My Links* rollup within SharePoint subsites
  - Search functionality within the *Workspaces* drop-down menu
  - Development of unique site templates
  - Additional consultancy around structure, governance, best practices, and adoption

These custom elements were delivered in line with BrightStarr's existing delivery methodology: the *Kinetica process*. This process involves extensive requirements gathering to identify client requirements. For each element of requested functionality, BrightStarr engaged in persona mapping and use case testing to ensure the functionality developed would add maximum value for DORMA.

Certain requirements that DORMA requested were identified as holding significant value for all Unily customers and were added to Unily's customer-led roadmap. This roadmap of new features is a part of Unily's customer success program; the product's evolutionary nature allows BrightStarr's community of Unily clients to guide how the platform grows alongside their businesses, completely free of charge.

For example, BrightStarr recognized the wider value of DORMA's request for a localization framework and multi-lingual translation functionality, so it enhanced the platform accordingly and rolled it out to all of its UNILY customers.

Getting Buy-In

Getting early buy-in from key leaders can be the difference between an intranet project's success and failure. The DORMA team aimed for buy-in from top management right from the start. With the CEO as a promoter and power user of the new intranet, it was quickly accepted throughout the company. Additionally, the team enlisted colleagues from one of DORMA's regions to form a pilot group and provide a decentralized perspective on the project. This helped the team focus on the needs of the company at large rather than just its headquarters.

This early focus on achieving broad input helped set the tone, shifting communication from a top-down approach — that is, talking to employees — to creating conversation among employees. "It's great to see how fast this tool has been accepted by colleagues around the world," says Gagala.

It also helped that the site was launched in tandem with two major company events, immediately supplying the intranet with many curious users.

To support those early users, the team provided video tutorials in English and German, explaining each of the intranet's new functions. At approximately two minutes, these videos are long enough to explain single functions in detail and short enough keep the audience interested. The videos also allow for user commenting. As part of the launch activities, the team placed a direct link to the video tutorials on the homepage.

In addition to video tutorials on the social content, the team also provided social etiquette tips, reminding users about the dos and don'ts of the platform.

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
BrightStarr A user experience, design, and research consultancy focused on SharePoint Office 365 Azure and Yammer	• Designed and built Unily Intranet as a Service around industry best practices and the very latest Microsoft enterprise technology • Branded, customized, and deployed DORMA's solution and provided consultancy before and during solution deployment • Post-launch, the organization delivers ongoing success consultancy and full technical support, as well as delivering Unily's customer-led roadmap of new features to DORMA's Unily intranet, keeping the platform in line with industry best practices and the latest and greatest feature releases from Office 365

GOVERNANCE

The DORMA Social Intranet is owned by Group Communications, which developed a communication and collaboration strategy along with the IT department. Ongoing development is being done with input from the company's Communication & Collaboration Council, which brings all relevant stakeholders together.

Having a strategic owner on a group level has been critical to the site's success. "When launching a new system that combines a global and local approach, it is extremely important to create clear rules for the usage of this common platform," says Gagala. "We defined a governance classification for both content and technical responsibility within the intranet, giving users a clear understanding of who is in charge of certain elements on homepage-level and within our collaboration spaces (global, local, department, team, and project sites)."

All local entities can use personalization settings to refine information to their specific local needs. Group information is marked with "all company" and is visible to all users, regardless of their personal selections.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Global Executive Committee (GEC)	• Serves as the executive-level champion for the solution. The executive sponsor's primary responsibility is strategic, positioning the solution as a critical mechanism for achieving business value and helping communicate the solution's value at the management levels of the organization.
Business Owner	• Manages the overall design and functional integrity of the solution from a business perspective. The business owner does not have to be an IT expert; however, for intranet solutions, the job function includes responsibility for internal communications.
Communication & Collaboration Council	• Serves as the governance body with ultimate responsibility for meeting the goals of the solution. This council is typically comprised of representatives from each of the major businesses the solution represents, including Corporate Communications, HR, and IT. The council is chaired by the Security Officer and the Collaboration Officer?
Collaboration Officer	• Manages the overall design and functional integrity of the solution from a holistic perspective, including the Office 365 environment, search, and permissions. Works in partnership with the business owner to ensure that best practices are followed and that the appropriate features are applied in individual sites or site collections.
IT	• DORMA established a system to implement roles and responsibilities (6-Box Matrix). The matrix ensures collaboration between Group IT and Area IT. This matrix will be delivered for each subservice of Global Collaboration (basic collaboration, intranet, workflows, and apps).

Communication Heroes	• Support the organization's successful deployment and adoption of the intranet by sharing best practices and lessons learned in a Community of Practice team site. Members serve as SharePoint advocates and change agents.
Site Owner	• Serves as the centralized, primary role for ensuring that content for a particular page or site is properly collected, reviewed, published, and maintained over time. Site owners are likely to need to learn about SharePoint and Office 365, but their primary expertise is business focused.
Site Key User	• Manages the site day-to-day by executing the functions required to ensure that the content on the site or page is accurate and relevant. Key Users act as content stewards for their sites.

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• https://dormaworld.mydorma.com
Default Status	• The intranet is set as each user´s homepage on a global level, but users can change the setting on their own devices.
Remote Access	• When users are outside the corporate LAN, they can connect to the intranet through two-factor authentication.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
2000	• DORMA's first intranet implemented
2006	• DORMANet Central Europe launched
2012	• DORMAworld launched
September 2014	• Approval to build a social intranet, with a launch date set for January 2015
October 2014	• Project kick-off meeting
December 2014	• Pilot phase
January 2015	• Global launch of DORMA Social Intranet
Overall redesign time frame: 60 days	

CONTENT MANAGEMENT

CONTENT MANAGEMENT	
Contributors	• DORMA created a contributor network called "Communication Heroes." This network unites all content creators around the globe and is supported by the Group Communication Team. Communication Heroes come from across the organization, including people from HR, IT, operations, and administration functions, and all of them contribute their skills. Currently, most of the 40 heroes have an HR background. All Communication Heroes' activities are performed in addition to their regular jobs. • Contributors from around the globe provide content in the social feed.
Contribution	• The Communication Heroes meet virtually once a month. Their contributions help make local stories accessible to a global audience. To guarantee a smooth transition from the old to the new environment, the Communication Heroes of the Area NEE (North-Eastern-Europe) were part of the social intranet's pilot phase and contributed a local entity's viewpoint to this global approach.
Training	• All Communication Heroes are brought on board through a recorded virtual meeting, which is accessible to all other existing or new program participants. The intranet team also recorded video tutorials to explain all functionalities that Communication Heroes use and to demonstrate how to create content in the system.
Management	• The social intranet approach allows the Communication Heroes to create their own stories based on the Communication Heroes Guidelines. Because there are no approval workflows for news articles, team members can deliver content directly without delays.
Maintaining Quality	• The Communication Heroes Guidelines are a good foundation for helping program participants maintain content quality. In general, each Communication Hero is aware of all published stories and won't publish anything twice.

Culling Content	• A cleanup was performed during the last launch of the classic DORMAworld intranet. The team decided to migrate over all existing stories from 2011, so that new employees could review all content associated with the company's DORMA2020 strategy program from the beginning. This also gave the team the opportunity to directly highlight the search functionality from day one.

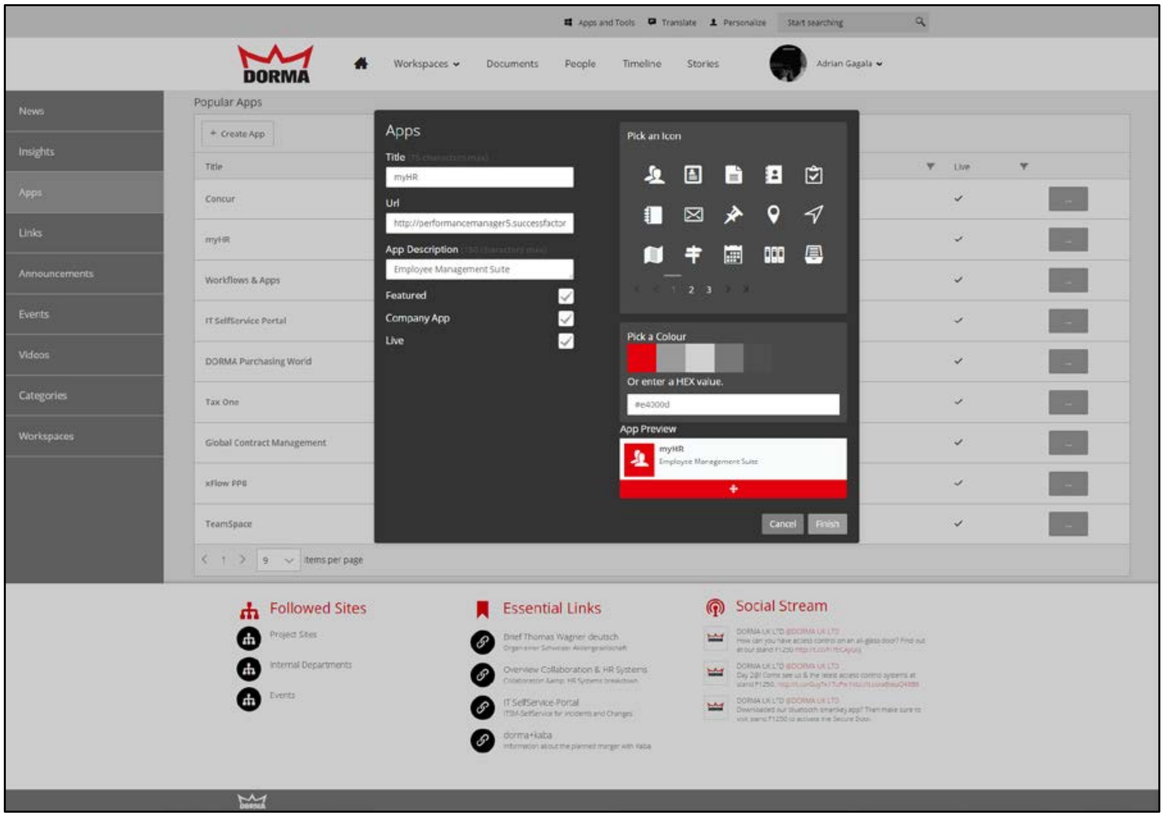


Image 61. DORMA Intranet: CMS Interface With App Creation Tool Open. The unique overlay on top of SharePoint CMS makes creating and managing content quick and easy. The open tool shown here helps users edit or create new apps for the MyApps hub. *61_DORMA_11_CMS_Live.png*

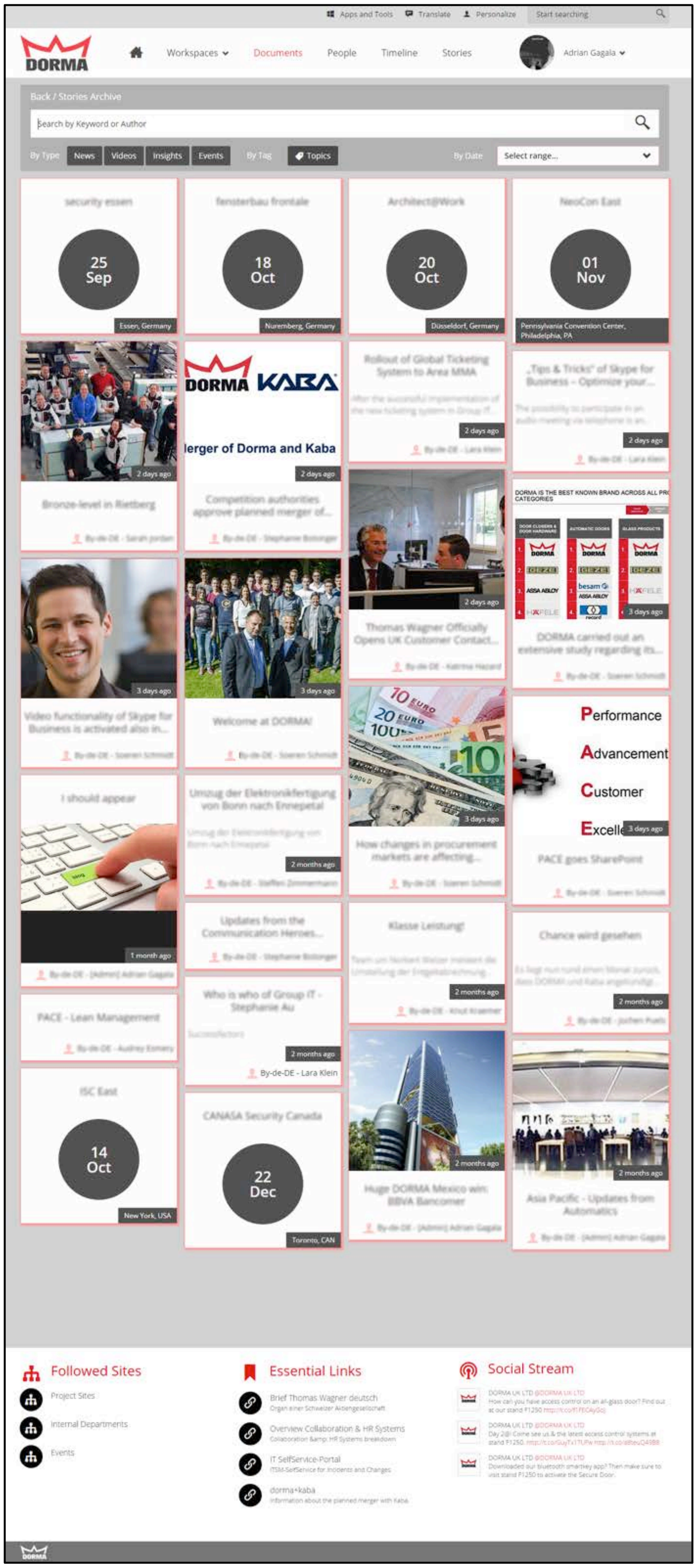


Image 62. DORMA Intranet: Content Archive. If users navigate to the *Stories* tab and then click the *view all* button at the bottom of a content stream, they will navigate to the content archive, which consists of an infinite scroll rollup of all content. *62_DORMA_12_ContentArchive_Live.png*

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• Office 365/SharePoint Online, Azure
Bug Tracking / Quality Assurance	• Team Foundation Server (TFS), Freshdesk
Design Tools	• Photoshop; Illustrator
Site Building Tools	• Visual Studio, SharePoint Designer, Dreamweaver
Content Management Tools	• SharePoint
Search	• SharePoint
Other Functions	• Yammer, OneDrive, Skype for Business, Microsoft Translator

RESULTS AND ROI

The key goal driving implementation of the new social intranet was to broaden the intranet's reach. Metrics from the existing system showed that access rates to news articles were lower than expected, especially for the international audience.

"The team's approach was aimed directly at improving the bandwidth of communication reachability," says Gagala. "And we did. On average, we now have 570% more clicks on news articles per month and participation (in Yammer) of 65% of all users that have access to a PC.

"These are incredible numbers," he says. "That makes us really happy. People started to interact with content directly from day one, and the activity on Yammer is a blast."

Valuable content is now being shared around the world, including information about new showroom openings, new product information, and reports from customer projects. And, most important, conversations are occurring among employees, who are getting to know their colleagues from around the globe.

Unily's native analytics engine tracks metrics for DORMA's intranet, recording everything from the devices used to access the intranet to which country users are from and the time and day of access.

LESSONS LEARNED

A few key lessons from the DORMA team:

- **If you build it, they will come — as long as it contains interesting content.** "Having the social intranet completely open right from the start worked out surprisingly well. Remember, we did not have the chance to deliver classic classroom training to all our employees due to the limited time frame available, which made us realize you have to believe in the power of social. Launching the system directly before two major events provided the secret sauce: interesting content. Having interesting content created the momentum to get the system rolling from the first day."
- **You can't really train social.** "People made use of the social features quite intuitively. Very little guidance was needed."
- **Social is just the tip of the digital workplace iceberg.** "Implementing a social intranet is not a sprint; it is an enduring race with a lot of stages. We strongly believe that this first stage is just the foundation of our digital workplace of the future. Predictions say that business will change within five to 10 years from now. All businesses will need to be highly agile and collaborative; in other words, they will have to be more social. In 2020, Millennials will represent approximately 40% of the workforce. We will see an increased globalization and completely new ways of working. Increasing technology will not mean we work fewer hours; it will mean we stay more connected. There will be 'core teams' working around the globe and information will move incredibly fast. Exciting times! We believe that the social intranet will become our digital companion in the enterprise."

Enbridge Inc.

OVERVIEW

COMPANY

Enbridge transports, generates, and distributes energy across North America.

Headquarters: Calgary, Alberta, Canada

Company locations: Enbridge has five major offices across North America, as well as several regional offices.

Locations where the intranet is used: All employees at Enbridge use the ELink intranet.

Annual revenue: $37.6 Billion in 2014

THE INTRANET

Users: Approximately 11,500 users across six different business units use ELink as their primary source of company information and resources to help them do their job.

Mobile approach: N/A

Technology platform: SharePoint 2013

TEAM

Sponsors: Harold Esche, Virginia Webster

In-house project team: Doug Balsam, Kerry Corcoran, Carolyn Price, Nicole Stuckert, Richard Rowe, Peter Tane

Training development: Lindsay Trebble

Interface design (creative services): Leo Burnett

IA design and technical development: Habanero Consulting

INTRANET TEAM

Enbridge ELink team members shown here (left to right): Richard Rowe, Harold Esche, Carolyn Price, Kerry Corcoran, Nicole Stuckert, Virginia Webster, and Doug Balsam.

HIGHLIGHTS ABOUT THIS WINNER

A move to SharePoint 2013 was the impetus to update Enbridge's intranet. The technology change was coupled with a visual and structural redesign to better support Enbridge's values, align with the brand, and make the intranet an essential tool for employees. The content restructuring, new look, and shift in technology all took place over a 10-month period. Adoption of ELink is high, with 79% of field workers and 86% of office workers reporting that they access the site at least once a week (based on a survey prior to the ELink upgrade).

- **Content Migration:** A huge team project was to migrate more than 7,000 pages and documents — and their associated metadata — from the previous site to the new one. The team not only moved the content, but also remapped target audiences to the new structure and tackled custom migrations for areas such as classified ads, *My Links*, events, and article comments.

  Team members paid attention to not just the details of the technical migration, but also to users. The team worked to limit the time that content would be unavailable to users during the transition, particularly for frequently used and frequently changing information such as news, events, classifieds, and *My Links*.

- **Audience Targeting:** The previous intranet and overuse of email distribution lists overwhelmed users with information that wasn't always relevant. To solve this problem, the team focused the new site on audience targeting. The new site targets content by location — city, country, and region — as well as by role. Thus, content can be targeted to specific audiences to ensure employees are receiving the information that is most relevant to them; it also lets local groups use the site, rather than email, to communicate.

- **Improved Content Workflows:** An engaging intranet depends on content, which in turn depends on its content authors. Enbridge team members understood the importance of their content providers and worked to simplify processes and streamline training to make their work easier. The team started an online process for training through the company's online learning management system (eLMS), which includes modules of video tutorials about various processes for creating content, including formatting, adding images, and approval workflows. By creating the training in modules, the team can update a single set of instructions as processes change, rather than having to recreate the full training.

  Even with the addition of 50 new content authors, the new system has eliminated support calls about content publishing. One measure of the site's success is how happy the authors are with the new, efficient publishing process. Users no longer have to view the back-end to add or edit content, and the approval process is streamlined. Authors can easily publish news and categorize it for exposure to the right audiences.

- **User Focused:** The team started with a user experience assessment and analytics review, then moved on to stakeholder interviews and visioning exercises. Team members conducted listening labs with 20 employees in diverse organizational roles who had been at the company anywhere from three weeks to 23 years. They observed the employees doing typical intranet tasks — such as signing up for a course — and gave them a list of things to find to see how people located information on the site. These early insights helped team members stay user-focused as they made design and content decisions.
- **Inbound Links:** With the move to a new structure, thousands of inbound links on the site broke, including browser bookmarks, information in Office documents, and content in e-learning modules. When the site launched, the team realized the magnitude of the problem. Unable to fix every inbound link, the team instead created a SharePoint list of URLs that were changed; this replaced the standard 404 not-found errors with redirect links. Because the SharePoint list recognized regular expressions, a single link could cover an entire section or site. In this way, the team ensured that every link that was valid on the old site would work on the new, even if the content had moved. This small innovation had a huge impact on user satisfaction.

BACKGROUND

Many factors converged at one time, driving the need and scope of the ELink upgrade project. These included:

- **Company growth:** Enbridge had grown considerably since it originally launched ELink on the SharePoint 2010 platform in 2012. This growth meant more users, more content, and the need to review the existing architecture to ensure it could accommodate growth. The site's user experience also required a close review, as users' needs were evolving.
- **Desire for increased efficiency:** Because it was becoming increasingly difficult, costly, and time-consuming to add new functionality, Enbridge wanted to move away from a highly customized portal to something more out-of-the-box. The improvements from SharePoint 2010 to 2013 provided the out-of-the-box functionality needed to evolve ELink and give users the required tools and resources. It also significantly improved the publishing experience for site authors, and increased efficiency for ELink Site Managers.
- **Changes in IT:** Enbridge IT was moving away from its federated model to an enterprise services support model; this prompted an implementation of ELink on Enterprise 2013 SharePoint, driving the need for a consistent platform.
- **Updated brand positioning:** Enbridge's 2014 rebranding included a change in visual identity and brand colors, which required a visual and structural redesign of ELink to support the company's values and better align with the brand.

- **Forward thinking:** Enbridge acknowledged that ELink could play a more significant role in overall company communications. Increasing ELink's capabilities would help the organization move away from depending on mass email to reach segmented audiences; it would also open up possibilities for creating more engaging ways for employees to connect.

ELINK PROJECT OBJECTIVES	
Stated Project Objective	**Steps Taken to Meet Objectives**
Create an Engaged and Informed Community	• **Enhance the homepage experience** by reorganizing content to focus on and prioritize the most important information • **Improve search and findability** by adding document previews, IA improvements, enhanced policies functionality, and a cleaner layout and organization • **Reinforce the brand** by adopting a consistent style throughout • **Improve news** by adding categories for increased segmentation and content targeting capabilities
Create a Central Place to Connect	• Improve events display • Create an inviting homepage experience with prominently displayed social media bar (including external channels), classifieds, and safety information
Focus on Users	• Enhance audience targeting by location (including country, city, and region) • Target all content to specific audiences to ensure employees are receiving the information most relevant to them • Allow users to change their default audience targeting to view content for another location or business unit • Improve authoring experience by providing a simple and clear content creation and approval process • Introduce landing pages to make it easier to find relevant content • Make eLMS training available for authors
Support ELink Themes and Desired Business Outcomes Better by Taking Advantage of the Available Feature Set	• Improve performance • Create a search-driven architecture • Apply front-end development best practices for SharePoint 2013 • Reduce the amount of customization
Leverage Out-of-the-Box SharePoint Functionality	• Reduce code by 67% (.2 million lines of custom code) • Use 39 fewer custom webparts

Challenges

Content migration was the biggest challenge for the project. The ELink team had to:

- Migrate more 7,000 pages and documents, while preserving metadata
- Map target audiences from the old structure to the newly created audiences
- Support and migrate many different types of custom content, including classifieds, *My Links*, events, and article comments
- Minimize the length of content freezes, particularly for frequently changing content such as news, events, classifieds, and *My Links*

As a result, the team learned several content-related lessons:

- **Audit.** "Start early with a content audit, so you know what you're dealing with. We did a content audit, but could have started this earlier in the project."
- **Tools won't do everything for you.** "Don't assume a migration product will handle everything for you. Depending on the type of content you're dealing with, it might not. We ended up using custom PowerShell scripts for all the migration activities. This added overhead to the project, but it also gave us complete control over every aspect of the migration."
- **Test your migration early and often.** "It's easy to delay testing your content migration because there always seems to be something more pressing in the project."
- **Test custom features with migrated content.**
- **Consider how you're going to deal with HTML page content.** "Do the existing pages use consistent styles that can be mapped to new styles? Are HTML transformations needed during migration? Will you continue to support legacy styles? Will there be a lot of manual cleanup needed?"
- **Browser compatibility.** "With various browsers and different versions of Internet Explorer in the Enbridge environment — including IE8 for many users — there were several challenges in how content was rendered."

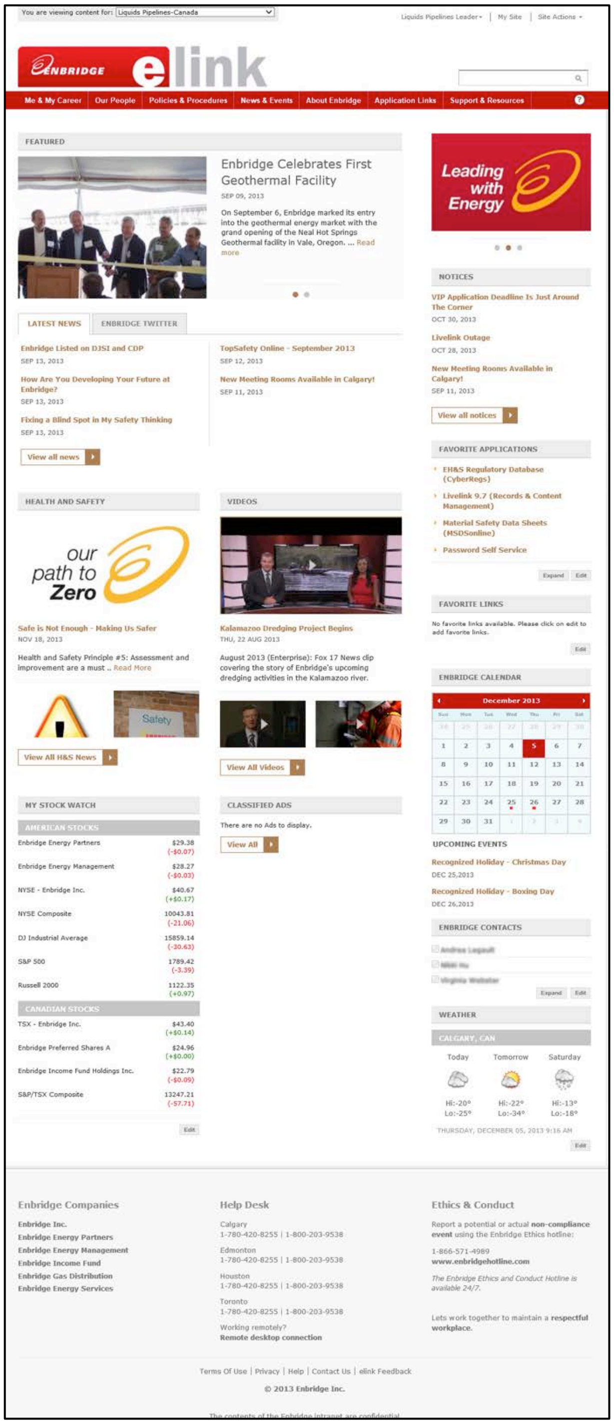


Image 63. Enbridge Intranet: The Old ELink Homepage. The Enbridge ELink intranet homepage prior to the new version's launch in February 2015. Each element on the homepage went through a rigorous review to determine whether it would be included in the new design.
63_Enbridge_01_home_version2.png

DESIGN REVIEW

Homepage

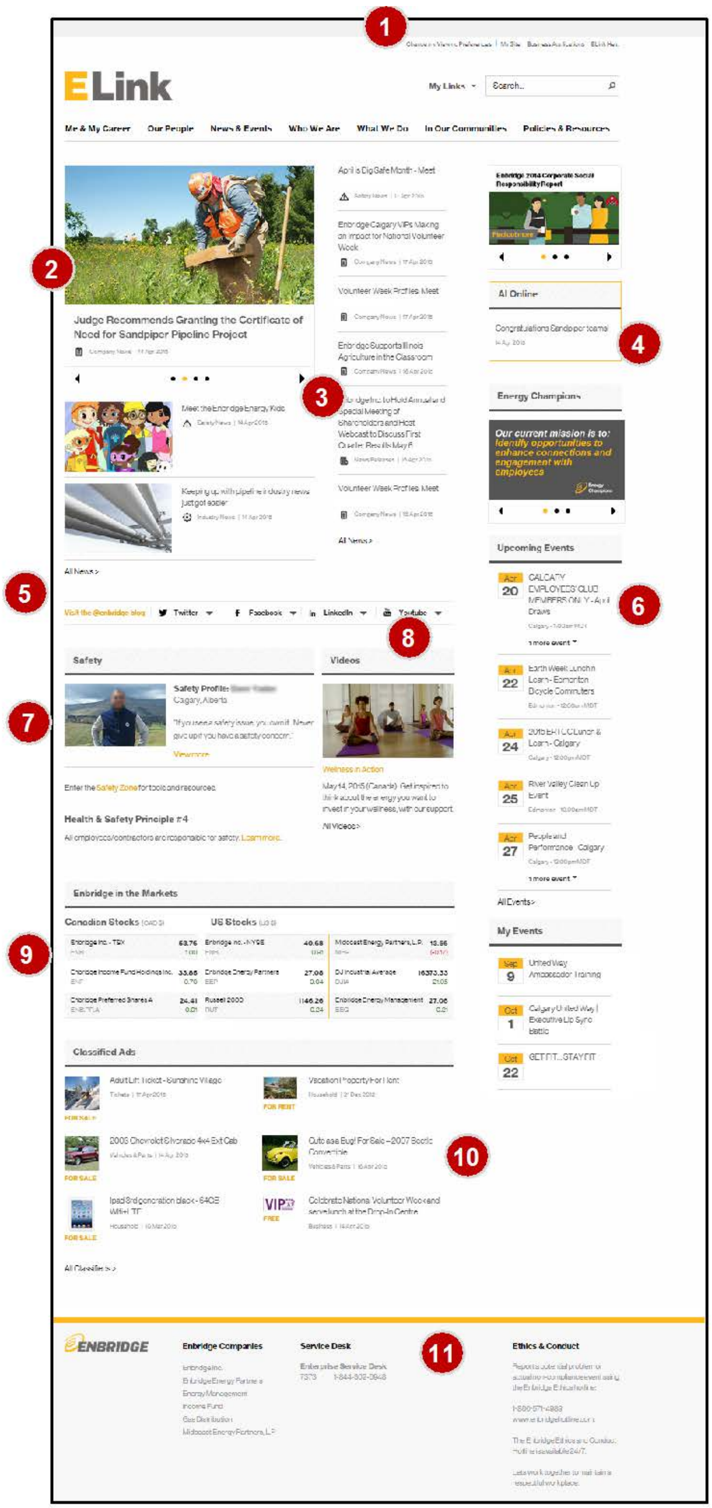


Image 64. Enbridge Intranet: Homepage. The new homepage design. *64_Enbridge_02_home_live.png*

Homepage Highlights

1. **Utility Navigation:** The site uses audience targeting to get the right information to the right people. Users can see their audience-targeting profile and make changes via the *Change My Viewing Preferences* link in the top utility navigation on the site; this area also includes links to *My Site*, *Business Applications*, and *Help* resources.
2. **News Carousel:** The top of the homepage focuses on news. Four stories are highlighted in a carousel at the top of the page, which users can navigate via arrows below the featured story. One of the redesign goals was to reorganize the content to prioritize the most important information and reduce the overall volume.
3. **News Items:** Additional news items appear in columns below or adjacent to the primary news carousel. Each item is stamped with the posting date and includes information about the type of news it is and an associated icon. For instance, *Industry News* has a gear icon, while *Safety News* has an exclamation point in a triangle. The redesign added new categories that allowed for increased filtering, segmentation, and content targeting capabilities. The bottom of each column also includes a link to view *All News*.
4. **Corporate Information:** Important corporate information appears in two smaller carousels in the page's top right corner. In between these areas is a link to the CEO's section, *Al Online*. This area includes regular messages in which the CEO communicates with employees by sharing updates and asking questions. Such features — particularly if they are informative, updated regularly, and have an approachable, casual writing style can go a long way in encouraging communication throughout the company.
5. **Social:** Employees can easily access the company's public information on social sites, including Twitter, Facebook, LinkedIn, and YouTube, via links in the middle of the page. This section also includes a link to the @enbridge blog. Providing quick access to external sites lets users stay aware of both information that the organization is sharing with the public and social media conversations about the organization's work.
6. **Events:** The right column includes a list of upcoming events from around the organization. *My Events* lists the events that a user has registered for and acts as a reminder of upcoming occasions (calendar invitations are sent as well). Events are listed individually so users can easily scan down the list, rather than having to enter a calendar interface to see details. The list includes the event date, location, and time of day. Users can click through to see details of any event or use the *All Events* link to access the full and robust events calendar. The listed events are targeted to the user's locations.

7. **Safety:** Safety is the number one value for Enbridge, with every meeting or gathering starting with a safety-related story called a "safety moment." Appropriately, this emphasis on safety continues on the homepage, which includes the *Safety Profile* link to the *Safety Zone*, which includes tools and resources, and a reminder of a health and safety principle, such as "All employees/contractors are responsible for safety."
8. **Videos:** The homepage features one video. The video's content is indicated with a play arrow on top of a representative image, together with the title, date, and a brief content summary. Video content is hosted by a third-party service, but appears embedded in the site.
9. **Performance:** Company performance information includes stock information on both the Canadian and US markets, with the stock name, symbol, price, and change, which is indicated in green or red (for gain or loss, respectively).
10. **Classified Ads:** The page is rounded out with the latest classified advertisements posted on the site. Classifieds are a popular content area on the Enbridge site and are thus represented on the homepage. Such content areas, which focus on employees as people rather than simply staff members, can help give intranets a more personal feel. Tools like this can also help employees connect with people they might not otherwise interact with — because they are in different roles or offices — via casual classified sales interactions.
11. **Footer:** The page footer includes links to the public sites of Enbridge companies, as well as information for contacting the Enterprise Service Desk. It also includes *Ethics and Conduct* information, which is listed with the reminder: "Let's work together to maintain a respectful workplace."

Events Calendar

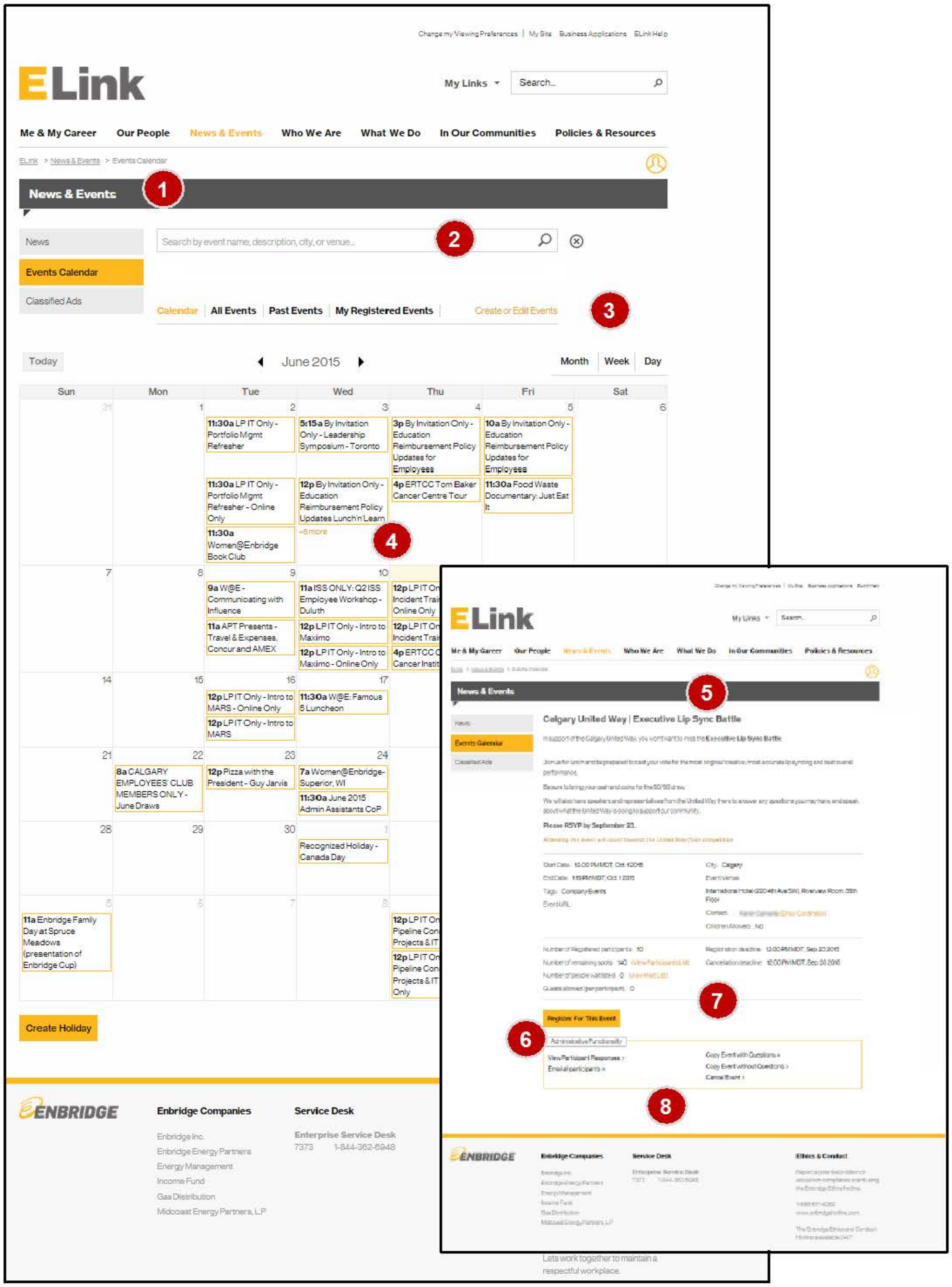


Image 65. Enbridge Intranet: Events Calendar.
65a_Enbridge_03a_events-calendar_live.png and
65b_Enbridge_03b_event_listing.png

Events Calendar Highlights

1. **325 Event Coordinators:** The events calendar allows 325 event coordinators across the organization to manage events. The calendar includes everything from local lunch-and-learns to the annual all-company meeting. Events follow audience-targeting guidelines, ensuring that visitors see events that are relevant to them. Time zone support means that users in different regions see details appropriate to their location.
2. **Search:** The calendar is searchable, so users can enter an event name, description, city, or venue in the top search bar.
3. **Views:** Users can choose a calendar view, or a view of all events, past events, or only events they are registered for. The top of the page also allows users to create or edit events. Users can view the calendar by month, week, or day.
4. **Event Listings:** Each event is highlighted on the calendar with the time and brief description. Events are listed chronologically; if more events exist than can fit in a particular view, they are listed as +8 more, and users can click to see additional items.
5. **Event Pages:** Detailed event pages describe and promote events.
6. **Registration:** Registering for an event automatically sends users an Outlook calendar invitation. Registered users are also notified of any event updates, changes, or cancellations.
7. **Registration Options:** Users can add guests to an event. They can also see the number of registered participants, the number of remaining spots, and the number of people on the waitlist.
8. **Administrative Options:** Coordinators can set up surveys to be sent to individuals, such as on dietary restrictions or topics of interest, as well as post-event surveys to collect feedback. They can also cancel events, email participants, view registration details with an option to export data to Excel, and create a new event from a previous one, which is helpful for frequently occurring events.

Safety Moments Exchange

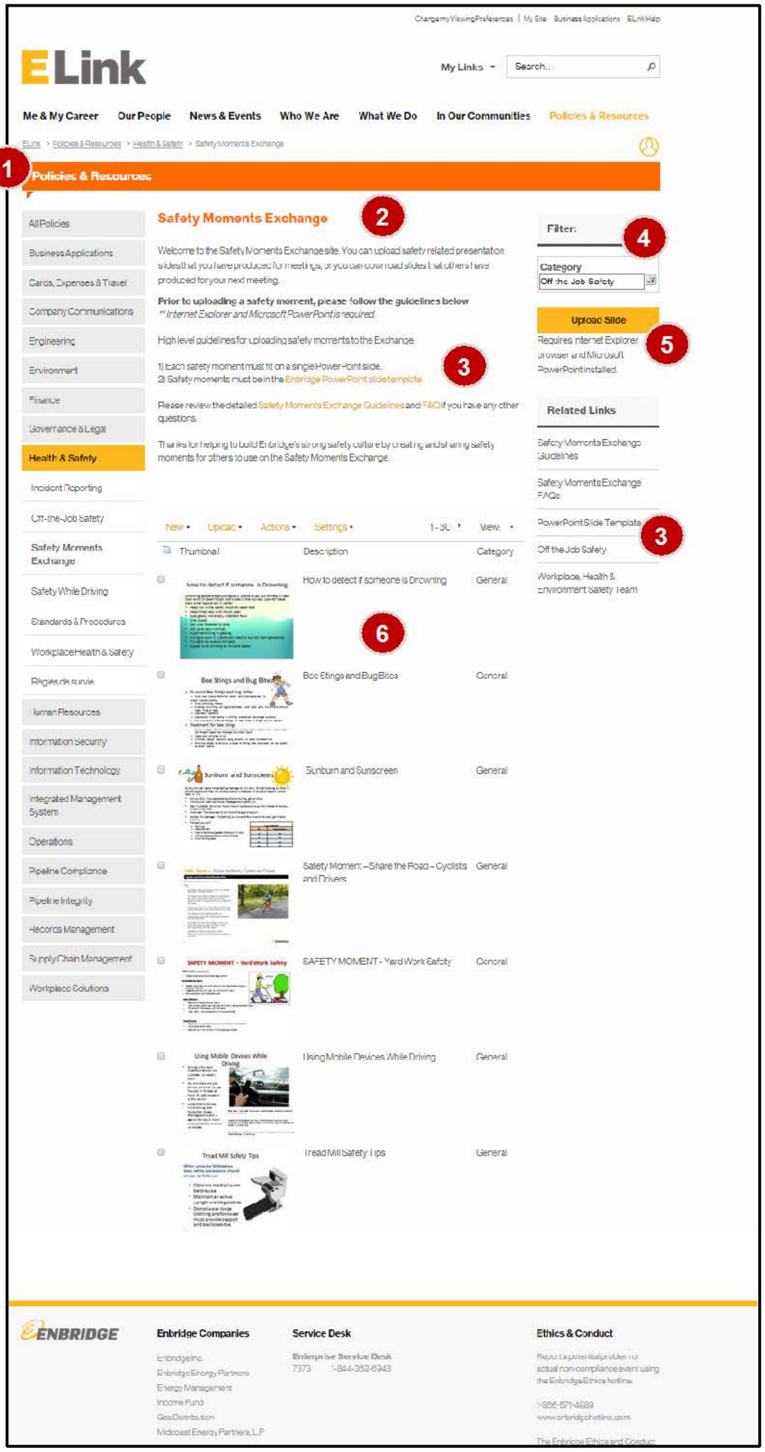


Image 66. Enbridge Intranet: *Safety Moments Exchange*.
66_Enbridge_04_safety-moment-exchange_live.png

Safety Moments Exchange Highlights

1. **Increased Presence:** One goal of the site was to increase the presence of safety communication. This is done on the homepage, with a section devoted to safety information, as well as through the *Safety Moments Exchange*.
2. **Safety Moments:** Every gathering, departmental meeting, or company event starts with a safety moment, which promotes the culture of safety at Enbridge. Each moment is a quick presentation or discussion of a safety topic. The site's *Safety Moments Exchange* is a resource for employees and contractors to create and share safety moments. 73% of employees have accessed this content on the site, as it meets a very specific need within the organization.
3. **Supporting Content:** The top of the page reminds users of two guidelines — that content must fit on a single slide and must be in the company's template — and also provides links to more complete guidelines and an FAQ for additional support. This information also appears in the right column's list of *Related Links*.
4. **Filter:** A filter in the right column lets users select a particular category of safety moment, such as *Off the Job Safety*.
5. **Upload:** A simple link on the side of the page allows users to upload content into the exchange for others to use in their presentations.
6. **List of Slides:** Each slide is shown in thumbnail view, but large enough that some content is actually legible. This is followed by a description of the content, such as "using mobile devices while driving" or "treadmill safety tips," along with the content category.

Author Support

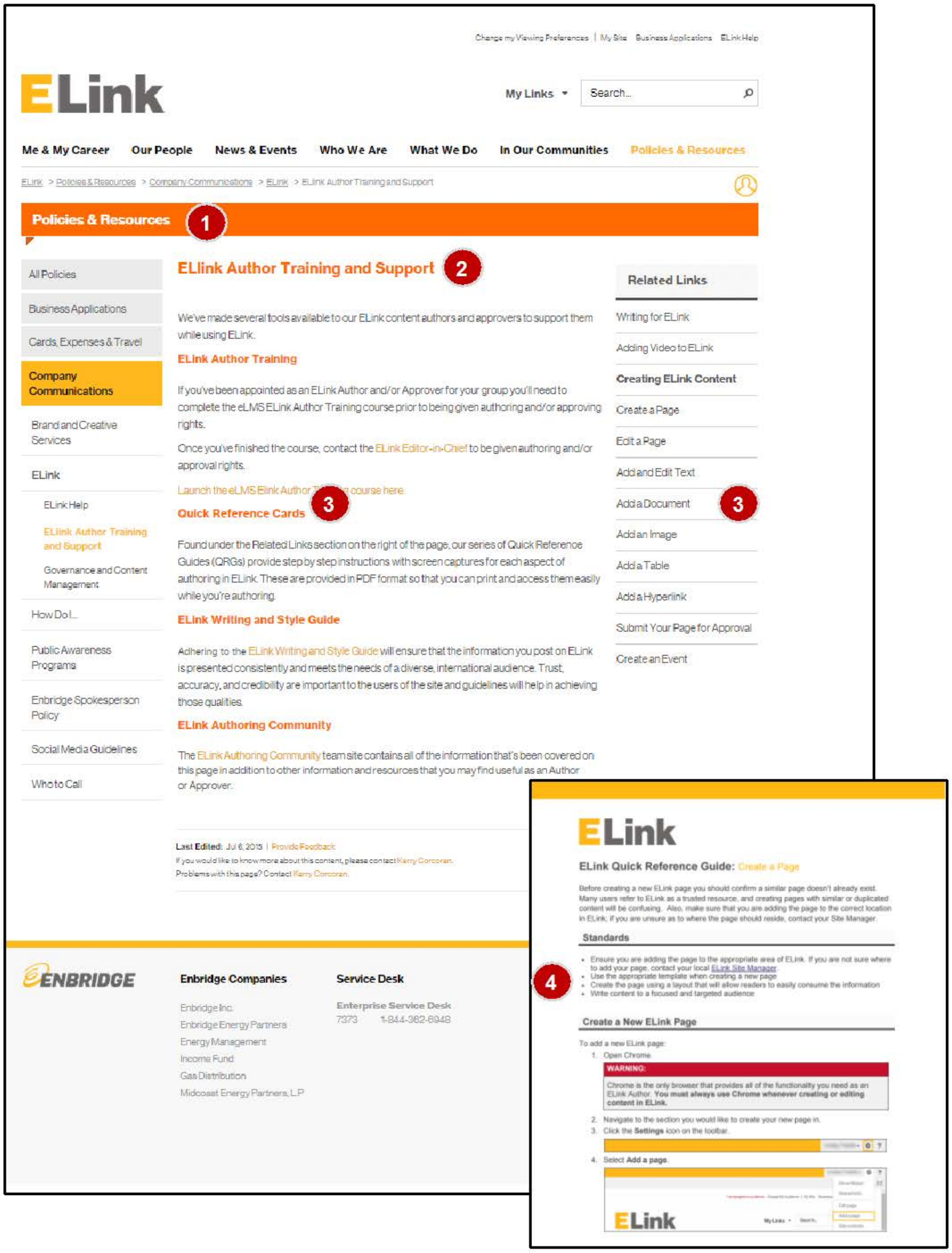


Image 67. Enbridge Intranet: Author Support.
67a_Enbridge_05a_author_support.png and
67b_*Enbridge_05b_reference_guide.png*

Author Support Highlights

1. **Online Support:** With the new site came a new workflow for authors and new training processes. Online, trackable training is available, along with a simple, clear content approval process. These changes were made in response to two things: a desire to support an engaged and informed community, and complaints emerging from stakeholder interviews about the complexities of publishing to the site. With more than 290 contributors and 163 approvers involved in content creation, support for these users is essential. Some people contribute because it is part of their job responsibilities, while others are self-selected; in all cases, the extensive author network helps ensure that content doesn't get stale. The team coordinates publishing schedules across the enterprise, and the site publishes two to four news articles daily, as well as updates on policies, job listings, events, and classifieds.

2. **Dedicated Resources:** Authors have a dedicated resources site on ELink and a team site. The resources site includes information about online training, videos, and reference guides; governance information; operating committee meeting minutes; and editorial guidelines.

3. ***Quick Reference Guides*:** The site provides *Quick Reference Guides* for authors, focused on a single key topic, such as *Create a Page* or *Add an Image*. These guides are easily accessible through the the *Related Links* area on the ELink *Author Training and Support* page.

4. **How To's:** The *Quick Reference Guides* provide step-by-step instructions for site authoring, with screenshots for each step. The guides are created as PDFs so that authors can print them as needed to follow along as they are posting or editing content. In addition to step-by-step instructions, the pages include tips and standards to review.

Search

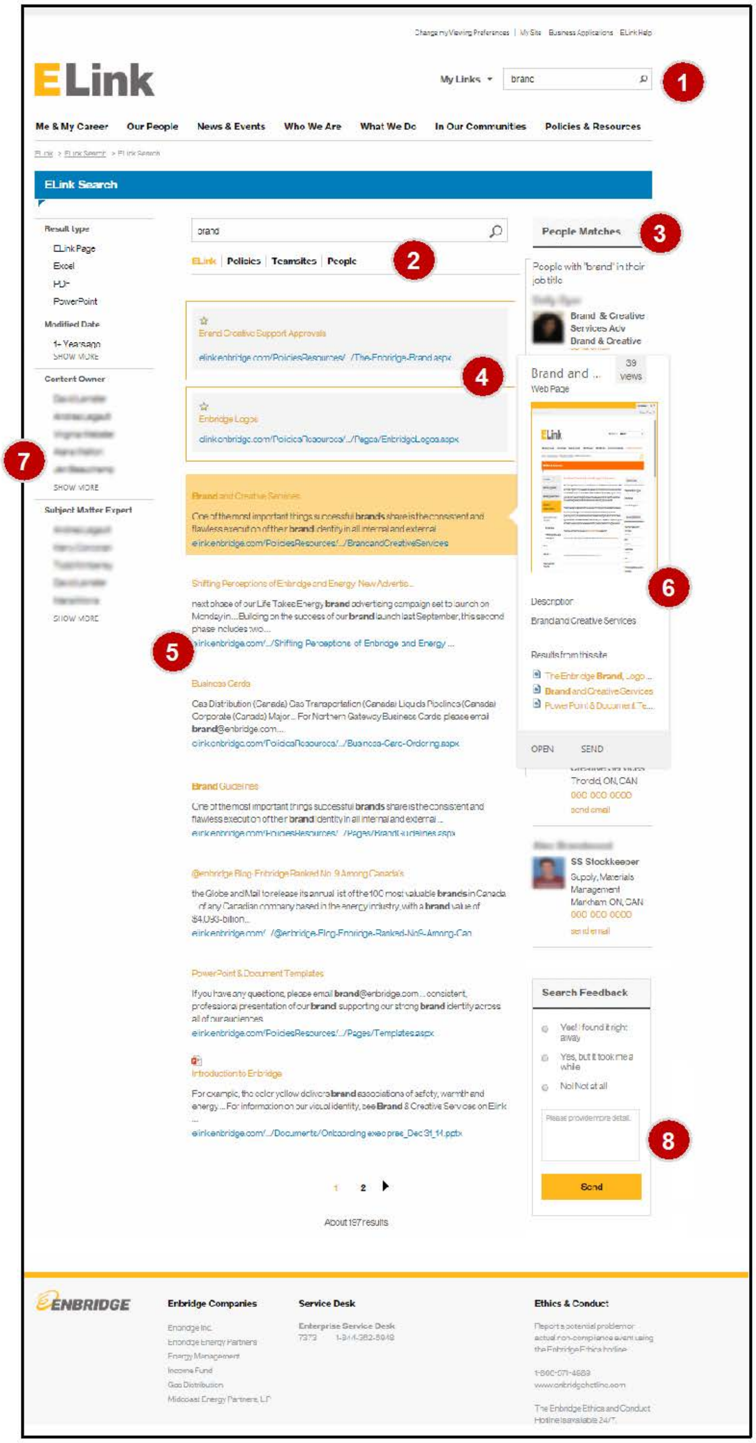


Image 68. Enbridge Intranet: Search Results Page.
68_Enbridge_06_search_live.png

Search Highlights

1. **Search Box:** The search box appears in the upper right corner of each site page. It includes a text field with the word *Search* and a magnifying glass icon.
2. **Scope:** The search results default to the broadest selection of content, but users can narrow results to see only results from *Policies*, *Teamsites*, or *People* at the top of the page.
3. **People Matches:** Employee results are displayed on the side of the page. In this case, employees who have the word "brand" in their profile information are listed.
4. **Best Bets:** The site uses best bets to direct users to the most valuable resources, as needed. In this search, "brand" returns results for support approvals and logos at the top of the results page, because these are commonly needed areas.
5. **Results:** Results are listed with a title, a snippet of content that contains the user's query, and the URL where the content can be found.
6. **Document Previews:** Users can hover over a result to see a preview of content, including the name, image, number of views, description, and additional results from the site.
7. **Filters:** Filters on the side of the page let users further narrow results by document type, modified date, content owner, and subject matter expert.
8. **Feedback:** Users can provide search feedback via a quick poll at the bottom of the page, which lets them indicate whether they found their content, did so with difficulty, or were unsuccessful, together with the option to add additional detail. The team uses this feedback along with analytics and insights from content owners and site managers to make constant changes to the search tool. Such changes include adjusting keywords, adding metadata, temporarily boosting rankings for dynamic content, and highlighting content via best bets.

DESIGN PROCESS AND USABILITY WORK

Long before any design or implementation work began, the intranet team conducted a user experience assessment, analytics review, stakeholder interviews, and visioning exercises. These efforts were essential to creating a vision and a roadmap for ELink's future. What follows is an overview of each of these activities and how the findings from each played into the ultimate design decisions for the new site.

Surveys

The team started the user assessment by reviewing the results of surveys on the previous ELink version; such surveys had been conducted almost annually since it originally launched.

Overall, satisfaction was quite high: in the most recent survey, 68% of employees had a favorable view of ELink. With more than ,000 employees responding, the surveys provided a wealth of insight into current usage patterns, areas of satisfaction, and challenges or gaps that could be addressed to further improve the site's favorability rating.

Listening Labs

After reviewing the surveys, the team conducted listening labs with more than 20 employees, representing a range of roles across different business units and geographic locations. All major Enbridge offices were represented, as were some of the field offices. The sessions were conducted as follows:

- **On-site:** The research team traveled to the major office locations in Calgary, Alberta; Edmonton, Alberta; North York, Ontario; and Houston, Texas. It also conducted remote sessions via WebEx with participants from Minot, North Dakota; Ottawa, Ontario; and Superior, Wisconsin. Participants' tenure with the organization ranged from three weeks to 23 years.
- **Observation sessions:** Each session was held with an individual user and took 30 to 45 minutes to conduct. During the sessions, users performed their typical tasks on ELink, and team members observed their user interactions, ranging from how they opened the site (through the default homepage, favorites, or desktop links, for example); the tasks they performed; how they navigated; their use of scrolling; and so on.
- **Egg hunt:** The team also conducted an "egg hunt" as part of the session to observe how users find certain types of information or complete a task. A few examples of the tasks they asked users to do included:
  - "How would you sign up for a course?"
  - "If you are traveling to another office — how would you find information on the office location? What about available parking? Meeting rooms?"
  - "Where would you find the health and dental claim forms?"

- "How would you find recently updated policies?"
- "What is something you might typically search for? How do you go about it?"

Listening Labs Findings

The observations and feedback collected from the Listening Labs provided a rich source of findings that were grouped into four themes as follows.

Staying Informed

- Employees are keen to stay up-to-date about Enbridge and speak from an informed place.
- Safety culture could be promoted more strongly through ELink.
- Information can get lost on the homepage; the volume of content can be overwhelming, leaving the homepage feeling cluttered and busy.
- The team should strive to establish ELink as an essential tool.

Finding Relevant Information

- There are too many places to look for information.
- Finding teamsites is hard.
- It's faster to just ask someone.
- Search is not an effective tool for finding information.
- The *Application Links* list is confusing.
- Current IA and navigation need to be reviewed.
- Navigating between ELink and related sites and applications is not always easy.

Connection to People and Teams

- People-focused content is well-received
- Some people were confused about the purpose of *My Sites*.
- People search is an effective tool that is widely used.
- Employee-focused tools and information might be alienating contractors.
- ELink could be used more effectively to support the onboarding process.

Governance and Authoring

- The purpose or intent of ratings is unclear.
- Page feedback control is not effective for gathering feedback.

Analytics Review

The team reviewed the analytics data to better understand current usage patterns. Some of the key findings from this exercise included:

- *Application Links* was the most visited area; people used it as a jumping off point to other systems (such as PeopleSoft and eLearning Management System).
- *News and Events* was the second most visited area.
- Of the visits to the *Me & My Career* section, 70% were for job opportunities.
- User profiles were heavily viewed, with the majority of visits originating from the people search.

Stakeholder Interviews

In parallel with the other user experience assessment activities, the team conducted 16 interviews with ELink's key business stakeholders. Participants included leaders in Internal Communications, HR, and Records Management, and were drawn from each business unit.

The interviews uncovered the current priorities, goals, initiatives, and challenges of each business area. The interviews also explored the types of information these teams produce and communicate to others, and helped the intranet team define audience segments.

Stakeholder Interview Findings

The findings from the stakeholder interviews could also be grouped into the same four themes emerging from the Listening Labs; however, the interviews revealed additional challenges and needs that the future ELink would need to support.

The Need to Stay Informed:

- News keeps people informed … mostly.
- Content targeting doesn't scale.
- Increased presence of safety communication is required.
- Corporate initiatives are not easily discoverable.
- Systems integration is required to provide more relevant updates.

The Need to Find Relevant Information:

- There is a lack of trust and reliance on search.
- Regarding organization and IA, some navigation language is confusing and not intuitive.
- Team sites are used as a workaround to IA challenges.

The Need to Connect to People and Teams:

- ELink should better reflect the company's people and culture.

- There is a sea of overlapping tools for finding people.
- ELink does not offer a platform for feedback and discussion.
- Team sites are hard to find and keep track of.

The Need for Governance and Authoring:

- There is a lack of content accountability and maintenance.
- Authors have a challenging job trying to harmonize content as roles and groups change.
- The French translation is lacking.
- Content is time-consuming to develop and approve.
- The visual design is uninspiring.

Visioning Exercises

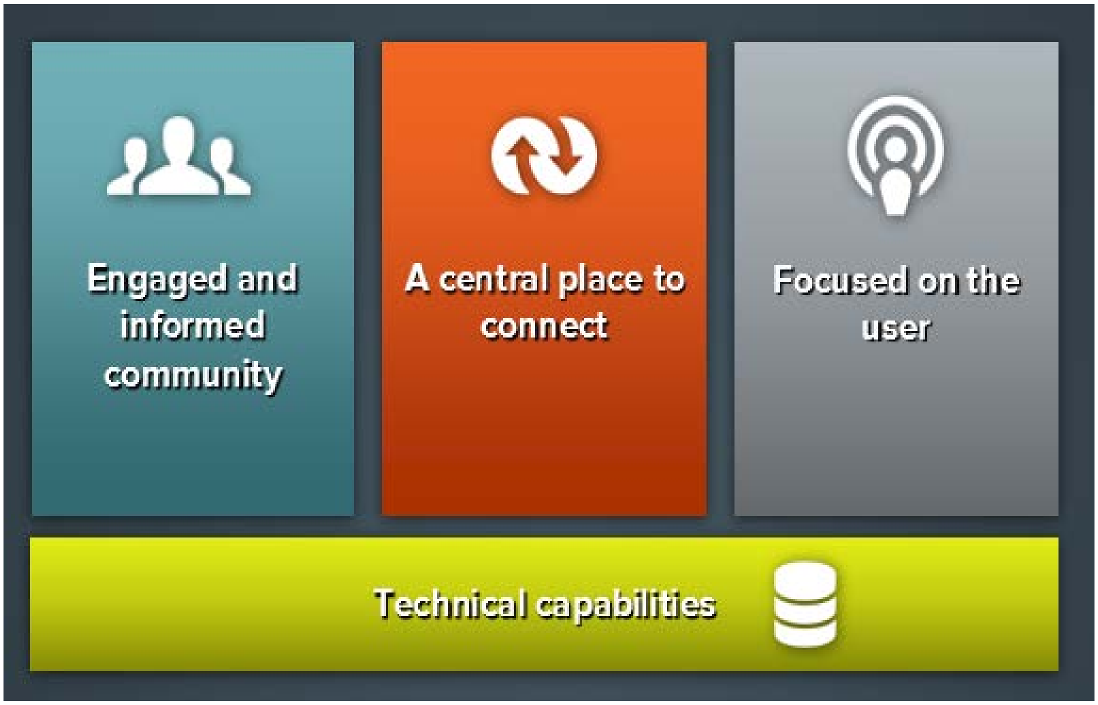
The team summarized and presented the findings of the user experience assessment, the analytics review, and the stakeholder interviews to the project sponsors and other key ELink stakeholders. The team reviewed examples of what other organizations are doing with their employee portals, particularly regarding the four themes that emerged from the listening labs and stakeholder interviews.

To help identify the most important elements in a new vision for ELink, team members conducted three exercise with the sponsors and key stakeholders:

1. They checked-in on the business goals and ELink's role in the organization relative to other systems.
2. They used the Gamestorming technique "Cover Story" to generate ideas for the future of ELink. The game's object is to suspend all disbelief and envision a future state that is so compelling it would earn the organization a spot on the cover of a well-known magazine.
3. They took the sponsors and stakeholders through a high-level prioritization exercise, exploring potential feature development areas that aligned with the business goals, the recommendations from the user experience assessment and stakeholder interviews, and the emerging vision for the intranet.

Vision and Roadmap Creation

The results compiled from the user experience assessment, analytics review, stakeholder interviews, and visioning exercises formed the basis for a new vision and updated roadmap for ELink. The vision was articulated through four central themes that informed priorities and changes to ELink going forward. The following graphic illustrates this vision.



Based on these user experience exercises, the ELink team developed an updated vision plan and roadmap for the new site. The team had four key goals for the site:

- Foster an engaged and informed community
- Provide a central place to connect
- Always be focused on users and what is important to them
- Reduce the technology challenges and leverage a more modern platform

A roadmap was then created that included items tied to each of these four themes; some would be implemented on the existing SharePoint 2010 version of ELink, while others would be included as part of the redesign and upgrade to SharePoint 2013.

Wireframes and Design

The design team created wireframes and a graphical design for the portal. Mockups were usability tested to ensure that they were as easy to use.

To develop the portal, the team used an iterative approach. Each development iteration was approximately three weeks long, which gave the team time to review and test what had been created and provide feedback and adjust as necessary.

Information Architecture

The user research (listening labs and analytics reviews) revealed that, while the existing portal’s global navigation items generally met users’ needs, a few confusing areas could be improved upon. The team made three primary changes:

- Combine the *Policies & Procedures* and *Support & Resources* sections into a single *Policies & Resources* section
- Remove *Application Links* as a global navigation link and instead provided a *Business Applications* utility link
- Replace the over-populated *About Enbridge* section with more intuitive *Who We Are*, *What We Do*, and *In Our Communities* sections

The team also conducted a detailed content audit and identified subsections that could be simplified, cleaned up, or renamed.

Image 69. Enbridge Intranet: Current Top-Level Navigation. Several changes were made to the ELink IA, starting with the top-level navigation. Links labeled with natural language terms, such as *What We Do* and *Who We Are,* help inform users about the content they will find there and feel less corporate than the original *About Enbridge* label. The team also merged two sections (*Policies & Procedures* and *Support & Resources*) to create *Policies & Resources*, thus eliminating confusion among employees about the content each section would contain. *69_Enbridge_07_Top-level_Navigation_live.png*

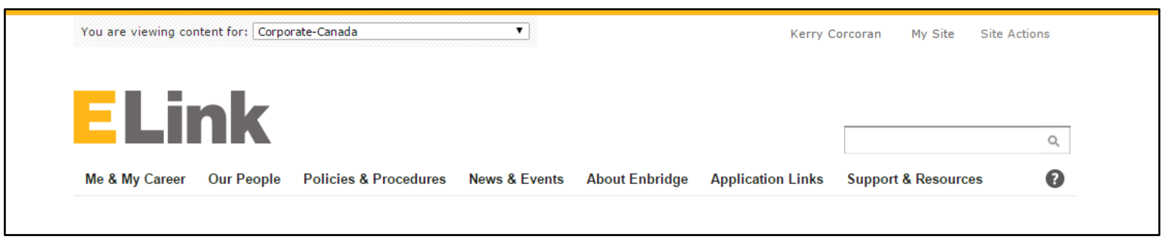


Image 70. Enbridge Intranet: Previous Top-Level Navigation. Navigation structure prior to the ELink upgrade. *70_Enbridge_08_Top-level_Navigation_Version1.png*

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
Leo Burnett Interface design (creative services)	• Visual design; develop new look and feel based on Enbridge's new master brand
Habanero Consulting Research, IA, technical development	• Research, including listening labs, functional gap analysis, and content review • IA assessment and redesign • Functional and technical specifications • Wireframes • Develop master pages and page layouts • Content migration • Permissions model architecture • Enhanced audience targeting • Quality assurance testing • Sustainment planning

GOVERNANCE

ELink is jointly owned by Internal Communications (part of the overall Public Affairs and Communications group) and Information & Productivity Services (part of the overall IT group).

This ownership structure effectively ensures that the technology platform is leveraged and supported through IT, while the business needs are addressed through Internal Communications. This was particularity critical during the ELink upgrade, as it had a broad business impact across the organization that wasn't necessarily tied to technology.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Digital Communications Steering Committee	The Digital Communications Steering Committee is composed of members representing all business areas. Among its responsibilities are to • Support the development and execution of internal and external strategic communications initiatives • Meet quarterly or as required
Internal Digital Communications Operating Committee	The Internal Digital Communications Operating Committee is the decision-making committee and includes members from different work groups and business units across the enterprise. Among its responsibilities are to • Develop business-driven implementation plans • Execute the plans required to implement various internal digital communication subprogram roadmaps • Meet monthly or as required
ELink Editor-in-Chief	• Ensure the overall quality, timeliness, and appropriateness of ELink's content and appearance • Support site managers in their role
ELink Site Managers	• Share and maintain standards of quality • Ensure their business unit's alignment with ELink's strategy and business objectives • Identify and recruit ELink champions to support the portal's guiding principles and goals • Provide ongoing engagement and support to the ELink authoring community

Content Authors	• Create and post content that is both factually correct and complete in a timely manner • Monitor and adhere to the publishing standards set forth by the Internal Digital Communications Steering Committee • Review other content to ensure their own is consistent with other business units but not duplicated elsewhere
Content Approvers	• Provide final approval and a second check of content to ensure it is appropriate for public circulation

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://elink.enbridge.com
Default Status	• ELink is set to be the default browser for all users; however, users can manually modify this setting if desired.
Remote Access	• Users can access the site remotely using secure external access technology (F5); they simply type http://elink.enbridge.com into their personal computer browsers or mobile devices and input their Enbridge credentials.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
2000	• First company intranet (eSource) launched
2003	• Second company intranet (eSource2) launched
September 2008	• ELink launched on SharePoint 2007
September 2012	• ELink launched on SharePoint 2010
April 2014	• Webtrends analytics implemented
May 2014	• SharePoint 2013 upgrade project kicked-off
September 2014	• Light rebrand of ELink deployed to coincide with Enbridge rebranding, which included a change of visual identity and brand colors
February 2015	• New ELink launched on SharePoint 2013
Overall redesign time frame: 10 months for SharePoint 2013 project	

CONTENT AND CONTENT CONTRIBUTORS

CONTENT MANAGEMENT	
Contributors	ELink currently has 292 content contributors and 163 content approvers. For some, maintaining content on ELink is part of their job function. Other employees choose to become content contributors to promote or share information.
Contribution	The Editor-in-Chief and Business Unit Site Managers collaborate through a SharePoint teamsite, the *ELink Authoring Community*. The site is open to all Enbridge employees and includes information on completing the online author training course, resources (such as instructional videos and quick reference guides), governance information, operating committee meeting minutes, and editorial guidelines.
Training	With more than 290 ELink authors, it was critical that the team provide support and training for several reasons: • Prior to the new ELink launch, formal training (beyond that found in a lengthy and outdated manual) was unavailable. • The team had no way to track who had completed training. • Many authors had permissions to publish on ELink but had never used SharePoint before. • As ELink evolved, users became increasingly unclear about how to post and edit content. As part of the ELink project, the team developed an online training course through the Enbridge Online Learning Management System (eLMS) application. The course includes hands-on tutorials on basic publishing tasks, including how to create a new page; add and format content; and add images, links, and videos. It also offers information about the publishing and approval workflow. The eLMS course was designed to be modular; as ELink evolves, the team can easily update a section without having to redo the entire course. It also tracks employees who have completed the course, so the team can better maintain its permissions list.

Management	ELink Site Managers are responsible for maintaining the quality and accuracy of content in their own business units or functional areas. Annual content audits are conducted and each page must have a content owner listed. Every page and document within ELink must be reviewed every six months. A notification is automatically sent through SharePoint to content owners, reminding them to look at their content.
Author Network Management	The Editor-in-Chief manages the author network through various means, including the following: • A dedicated resource site and team site on ELink • Monthly calls with all ELink site managers (who are spread out across North America) to discuss issues and questions coming in from the author network • Chairing the Internal Digital Communications Operating Committee, which includes site managers In addition, site managers reach out to their author networks annually to offer support and answer questions. A quarterly e-newsletter is also sent to all ELink authors. It includes important updates about ELink, writing tips, links to helpful resources, and interesting analytics (and the occasional funny SharePoint cartoon).

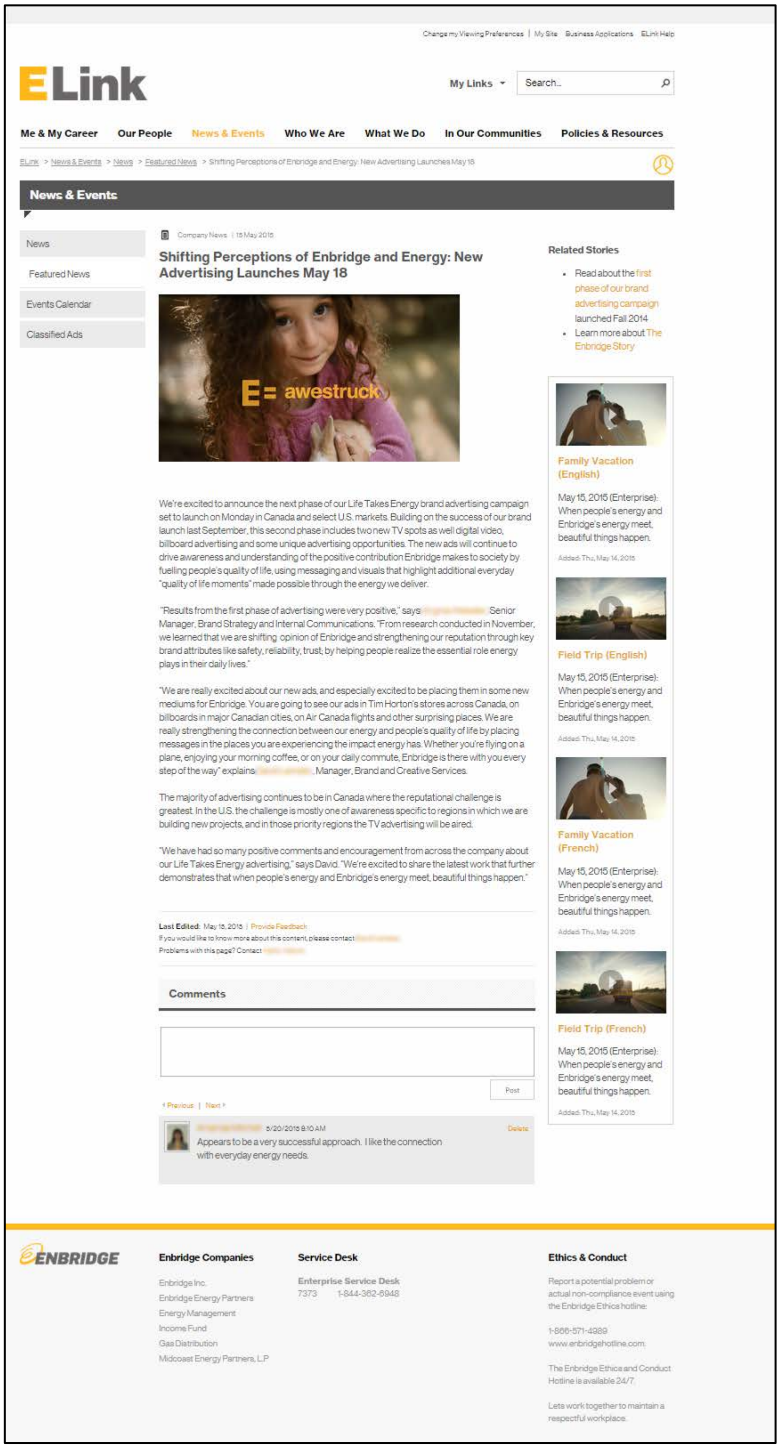


Image 71. Enbridge Intranet: Featured News Article. This is an example of a featured news article: a large image displays with the news story on the ELink homepage. All articles can contain images, galleries, or videos, along with related links and commenting. *71_Enbridge_09_content_live.png*

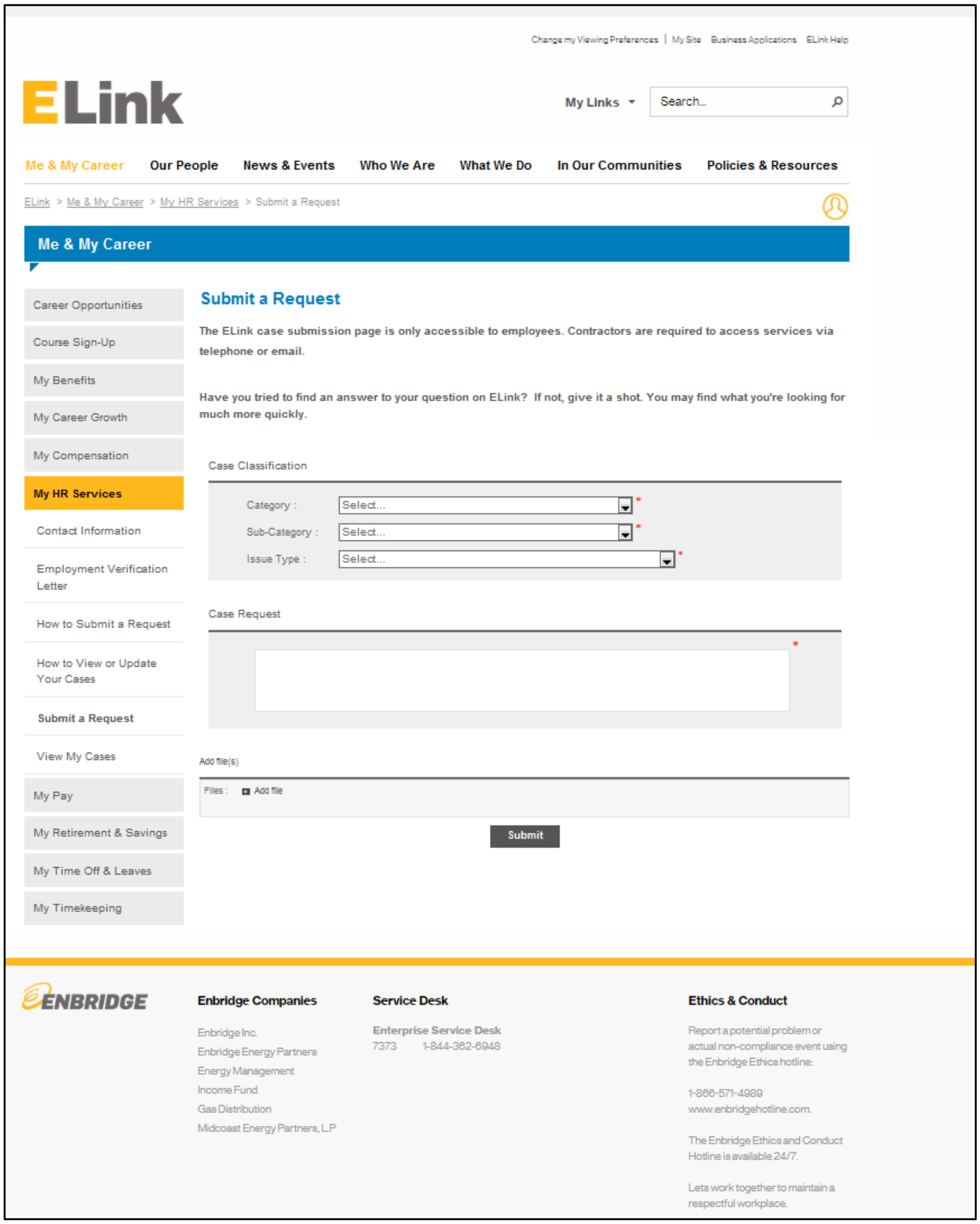


Image 72. Enbridge Intranet: Online HR Portal. The online *My HR Services* portal resides outside of the Enbridge network and is owned by the company's HR team. ELink contains a large amount of HR-related content (including policies, benefits and payroll information, course sign-up, and career growth information), so it was important that users were not driven out of ELink to access the *My HR* portal. As a solution, the team created an iframe, which allows employees to connect and interact with the *My HR* portal as though they were in ELink. *72_Enbridge_10_system_integration.png*

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• Windows Server 2012 • All servers are virtual (VMWare was the virtualization platform)
Bug Tracking / Quality Assurance	• Microsoft Team Foundation Server • HP Quality Centre • ServiceNow
Design Tools	• Balsamiq • XMind • Photoshop
Site Building Tools	• SharePoint 2013 was the platform of choice; all sites are provisioned as standard SharePoint Sites and pages are authored via the out-of-the box publishing methods.
Content Management Tools	• Built on SharePoint 2013, with out-of-the box content management and editing tools used as much as possible
Search	• Leverages SharePoint 2013 Search, with layers of enhancements over it (including custom search templates and results tuning/ranking)

RESULTS AND ROI

The success of the new ELink can be measured in many ways. One way that Enbridge finds helpful is to track both how happy users are with the new and improved tool and how useful it is in helping them accomplish their workday tasks. Several improvements have already garnered praise. Kerry Corcoran, Senior Internal Digital Communications Advisor and ELink Editor-in-Chief, shares some of these successes:

- **Publishing process:** "We have received feedback directly through authors, as well as through ELink site managers, about how impressed authors are with the efficient publishing process. These improvements include not having to go into the back end of the site to add/edit content (site contents menu); removal of the images and document publishing and approving process (this created a lot of confusion with authors, and resulted in several broken links); as well as the ease of publishing and categorizing news (this did not exist in the old ELink)."
- **Authoring training course:** "We have received positive feedback about the authoring training course that was introduced as part of the new ELink launch. In the past, we would receive several support calls to help authors publish content (due to the complicated process to publish). Since the new ELink launch, we have not received any support calls related to publishing content. This speaks to the ease of publishing. We have added over 50 new authors since the launch — none of whom required additional support beyond the online course."
- **Repurposing custom functionality:** "The ability to easily repurpose custom functionality (for example, our CEO online chat tool, *Al Online*, has been used twice in other places in ELink) adds value in other areas of the business, and provides cost savings to the development team. We were also able to introduce measurement tools — such as quick polls, knowledge sharing platforms, and 'liking' — therefore increasing employee engagement."
- **Improving site management:** "ELink site managers have expressed high satisfaction with the new ELink. Feedback ranges from how information is shared (targeting, news layout, enhanced functionality) to the removal of several 'publishing headaches' that they experienced prior to the new ELink launch. One site manager, who recently returned from a leave, stated: 'I can't believe how hard it used to be to post content, and how much better it is.' Several employees have shared how much they 'love' the new ELink (homepage structure, added functionality, etc.) and the same feedback has been shared with site managers across the business."

Team members are planning to conduct a survey on the new ELink to assess overall satisfaction, which will likely add even more proof that their efforts were a success.

LESSONS LEARNED

Following the launch of the new ELink, the project team regrouped for a lessons learned discussion, facilitated by Carolyn Price, the ELink project manager. Price kept the group focused on project outcomes and was careful to ensure that the discussion didn't become simply a listing of things that didn't work and who was responsible. The table below summarizes the session's key outcomes.

With many moving parts throughout the project, the team felt it was important to reflect and document the lessons learned, as they will be valuable in assessing future ELink projects.

KEY LESSONS LEARNED FROM ELINK REDESIGN		
Project Area / Overall Impact	**Key Learnings**	**Recommendations for Future Projects**
PROJECT MANAGEMENT **Impact: Positive**	**Strengths:** • N/A **Areas to improve:** • Be more assertive on deliverables	**R1:** Document all iteration requirements in more detail and obtain formal sign-off from the business
PROJECT PLANNING **Impact: Positive**	**Strengths:** • The team was committed to working on critical items and meeting the required deadlines to the best of their abilities. **Areas to improve:** • The team's final development iterations were aggressive and did not allow enough time for user acceptance testing.	**R1:** Ensure that an adequate and/or appropriate amount of time is allocated for user-acceptance testing **R2:** Be realistic in planning and allow for changes in scope
REQUIREMENTS **Impact: Neutral**	**Strengths:** • The requirements were good in many cases, but they were not fully documented; this left room for interpretation. **Areas to improve:** • Develop more granular requirements • Engage more stakeholders to help determine their requirements	**R1:** Create better requirements documentation and thereby improve the final development delivery

PEOPLE AND THEIR ROLES **Impact: Positive**	**Strengths:** • The team members were committed to delivering the project. **Areas to improve:** • Better definition of roles and responsibilities • Dedicated project team	**R1:** Improve internal resourcing for the project
PROJECT COMMUNICATION **Impact: Positive**	**Strengths:** • The core project team met daily and weekly with the vendor • The team had detailed communications with the site manager and authors. • Communications with Enbridge employees were well received and included articles and a launch video. **Areas to improve:** • More extensive team communication	**R1:** Hold weekly status check-ins with dependent projects earlier in the project
ARCHITECTURE AND TECHNICAL SOLUTION **Impact: Neutral**	**Strengths:** • SharePoint 2013 was implemented with limited customization. **Areas to improve:** • Better technical documentation from and/or knowledge sharing with the Enterprise SharePoint team on farm configuration • More robust load testing	**R1:** Ensure the core team understands the technical solution being implemented

VENDOR MANAGEMENT **Impact: Neutral**	**Strengths:** - The team engaged the necessary Enbridge stakeholders for input and approval. **Areas to improve:** - Be more assertive on deliverables	**R1:** Ensure accountability for the delivery process **R2:** Add a technical resource to the project to provide insight into general system functionality and provide expertise so that Enbridge can push back on design issues
TRAINING **Impact: Positive**	**Strengths:** - eLMS training is available to the ELink authoring community, as are quick reference guides. **Areas to improve:** - Have training available at least two weeks prior to the go-live date and tied to permissions to avoid author confusion and ELink support tickets	**R1:** Make training mandatory for all authors and reinstate their permissions based on completion of required training

LEGEND: Overall Impact on Project Rating	
Positive:	The approach notably benefitted the team and/or the project overall and could be used as an IT best practice in certain situations
Neutral:	Pros and cons were balanced; the positive and negative aspects were managed and it worked out okay
Negative:	The situation or approach negatively impacted the project or project team in some way

Intermountain Healthcare

OVERVIEW

COMPANY

Intermountain Healthcare is a not-for-profit health system based in Salt Lake City, Utah, with 22 hospitals, approximately ,400 multi-specialty doctors and caregivers employed at more than 185 clinics, a broad range of clinics and services, and health insurance plans from SelectHealth. Intermountain Healthcare is the largest healthcare provider in the Intermountain West, with more than 35,000 employees, serving the needs of Utah and southeastern Idaho residents.

Headquarters: Salt Lake City, Utah

Company locations: Intermountain Healthcare has 22 hospitals and 185 clinics across Utah and Southeastern Idaho.

Locations where the intranet is used: Employees at all locations use the intranet.

Annual sales: N/A

THE INTRANET

The intranet audience is dispersed throughout the state of Utah and Idaho. The intranet serves more than 35,000 employees, as well as affiliated physicians and contractors.

There are two core audiences:

Clinical: The clinical audience includes physicians, nurses, pharmacists, and other professionals who provide patient care. The tools and information available through the intranet are important because the clinical audience relies on the content to understand best practices, guidelines, policies, education, and so on.

Knowledge workers: Knowledge workers are heavy users of the intranet's document management, collaboration, and workflow tools. These users complete tasks such as inputting and collecting information from forms, sharing and collaborating on documents, and submitting information through approval workflows.

Mobile approach: Responsive website and mobile app

Technology platform: SharePoint 2013

TEAM

Design team: The eBusiness team is responsible for the strategy and management of the employee intranet. The eBusiness team works closely with key stakeholders including Communications, HR, Education, Compliance, and Operations to develop content, designs, and strategy.

Leadership: Camille Wellard, eBusiness Director

Design: Jeff Eschler, UX Designer; Gordon Peterson, UX Designer

Product management & analysis: Tyson Henrie, Product Manager; Josh Horton, Business Analyst; Jordan Edwards, Business Analyst; John Hess, Business Analyst

Development: Nate Green, Software Engineering Lead; Sunil Kongara, Software Engineer; Dmitriy Samus, Software Engineer; Mike Gilmore, Software Engineer

Server admins: Jed Obray, Middle Tier Admin; James Hillaker, Middle Tier Admin

INTRANET TEAM

Intranet team members shown here (left to right, top to bottom): Tyson Henrie, Josh Horton, John Hess, Gordon Peterson, Jed Obray, Jeff Eschler, Jordan Edwards, Nate Green, Camille Wellard, Sunil Kongara, James Hillaker, Mike Gilmore, and Dmitriy Samus.

HIGHLIGHTS ABOUT THIS WINNER

- **Responsive:** Everything available on employees' work computers is also available on their (work-issued or personal) mobile phones. The liquid design bends and adapts gracefully to promote visibility on any screen, making targets effortlessly clickable or tappable with a mouse or finger.
- **Gamification:** Creative gamification features in employee profiles and the health portal generate enthusiasm and a bit of fun competition.
- **Health Portal:** The portal focuses on preventative health and fitness. This preventative approach includes a variety of appealing health campaigns for all employees. In addition to helping employees feel good both mentally and physically, extrinsic rewards include community building and gamification principles that award employees with badges than can ultimately be exchanged for cash rewards.
- **Communication:** News, initiatives, office and workgroup information, and a social feed — all on the homepage — keep employees easily up-to-date on pertinent happenings.
- **Targeted Sections:** Physicians, nurses, pharmacists, and knowledge workers all need the intranet to collaborate and consult as they provide quality care to patients. To furnish detailed information to people in particular roles — without inundating the entire audience — the site offers helpful, targeted sections based on particular jobs and tasks.

BACKGROUND

The company's main motivation for the intranet redesign was to address emerging mobile needs. It considered creating a mobile version of the intranet, but ultimately decided that creating a mobile responsive site would result in a more scalable and sustainable product. The redesign project thus had several goals:

- Create a mobile responsive site that optimizes content for any device.
- Reengage site owners by providing easy-to-use tools for content management.
- Create a more cohesive site design that uses design elements consistently throughout the site.
- Improve search and overall site satisfaction by eliminating unnecessary content.

Every project has its own set of challenges. The Intermountain team was working with two pressing constraints:

- **Resource bottlenecks:** While the team was implementing the updated intranet, it had to simultaneously manage implementation of a new CMS and new designs on the public website. This created a resource bottleneck, as many of the site owners played roles in maintaining both the intranet and the public website.

- **New team:** Due to changes in roles and growth in the department, nine new people joined the Intermountain team within an eight-month period. Most of these new team members had very little experience with intranets, and several had only minimal experience with websites and usability in general. Although these fresh eyes contributed unique perspectives to the project, educating them about intranet strategies required a fair amount of effort.

Image 73. Intermountain Healthcare Intranet: Previous Version of the Intranet Homepage. *73_Intermountain_01_home_version1.png*

DESIGN REVIEW

Homepage, Desktop UI

Image 74. Intermountain Healthcare Intranet: The Current Homepage.
74_Intermountain_02_home_live.png

Homepage and Desktop UI Highlights

With a clean layout and various types of news and current information, clinical staff and administrators alike can easily get up-to-date on the organization and its events by simply scanning the Intermaountain.net homepage.

1. **Icons for Important Links:** Many of the most needed and most commonly used tools are offered as icons with text, in a priority position on the homepage: in the upper left. Thus, when employees launch Intermountain.net, they can immediately access key intranet areas and integrated third-party applications such as email, the employee directory, team spaces, the document repository, and training. Initially, users can rely on the text labels if needed; over time, icon recognition will offer even faster access to these common tools.
2. **Hero:** Designers chose to use a hero image in the homepage's main center section to showcase a single piece of important information. For example, the *LiVe Well* campaign urges employees to stay fit and healthy through specific activities. Doing this with colleagues you know — and ones you haven't yet met — creates a sense of community and, in some cases, a bit of healthy competition. The campaign name and information, *LiVe* Well and *10,000 Steps*, appears in large, clear lettering. The subheading *To Better Health* is a benefit-driven phrase, communicating why it might behoove people to participate. A date assigned to the campaign — here, June to November 30 — clarifies the participation window and introduces the *scarcity principle*, which can encourage people to take part in something because it won't be possible forever. A large, simple image shows a person engaged in a target activity, so people can imagine themselves participating. The image areas with text overlay are blurred to make the foreground text better stand out.
3. **News:** Three of the top news stories are showcased in the center section below the hero, and the *View All News* button below them makes all news easily accessible.
4. **Feed:** The most recent posts from the user's communities are listed in the right rail. Users can gauge their colleagues' interest in the topic, indicated by the number of likes and comments; they can also "like" comments or add a comment. Below the feed, employees can link to their full feed or join a new community of interest.
5. **Visual Sections:** The various homepage areas are easy to scan because they are visually chunked. Traits that help compartmentalize areas include: a large, clear title above the section; active white space between sections; and background colors behind or borders around each section. These traits help employees quickly scan the homepage for topics of interest.
6. ***Workplace Links*:** The *Workplace Links* section on the left links to information about the user's specific location and business unit.
7. **Calendar:** The main organization calendar includes events and holidays and displays the next five upcoming items.
8. **Menu and Search:** As is expected, the global navigation and site search appear at the top of all pages. At the top level, the global navigation is narrow and offers three distinct options: *Clinical*, *Pay & Personal*, and *Workplace Tools.*

Homepage, Phone UI Highlights

Understanding the emerging mobile needs of Intermountain's clinical and administrative staff alike, intranet team members were highly motivated to create a design optimized for mobile and any other screen using responsive web design. By studying user needs, devices, and content security needs, the team masterfully achieved its goals to represent the entire site and have a single base and method for adding and editing content.

Everything on the intranet homepage when accessed on a desktop computer is also available on smaller screens — even the smallest of smart phones.

1. **Hero:** The hero image is the same; it is still legible and takes the top content position in the phone UI.
2. **Tools:** Visible before scrolling on the phone, the tools are only a tap away.
3. ***Workplace Links* and Calendar:** Appearing after the tools, these features have almost the exact same UI as the desktop ones. The text is easy to read, and large targets make the links easy to tap.
4. **News:** For better mobile viewing, two news items are displayed by default, and all can be accessed via swiping and the *View All News* button.
5. **Initiatives and Feed:** These features also follow the same UI as on the desktop.
6. **Menu:** The menu and search are collapsed into an icon in the upper left hamburger menu to conserve screen real estate and dedicate more room to content.

Image 75. Intermountain Healthcare Intranet: Responsive Design.
*75_Intermountain*_03_homeresponsive_live.png

Employee Health Portal

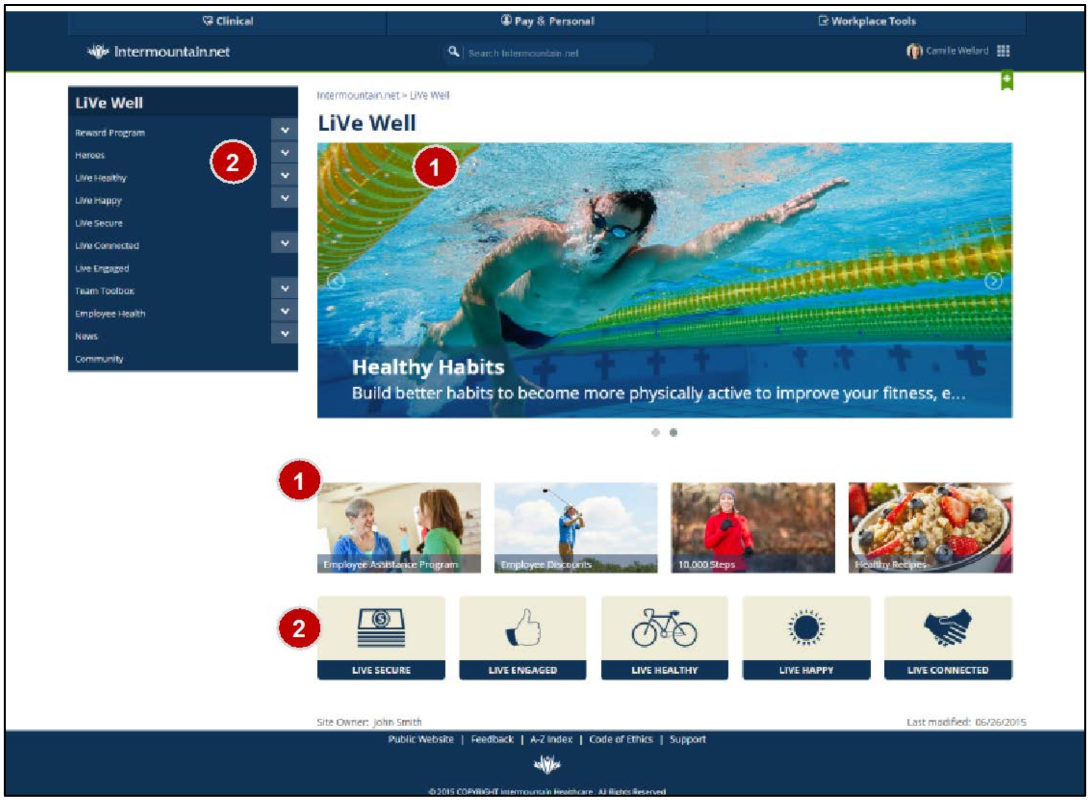


Image 76. Intermountain Healthcare Intranet: Employee Health Portal.
76_Intermountain_04_employeehalthportal_live.png

Employee Health Portal Highlights

The intranet takes advantage of Intermountain Healthcare's goal to increase employee health and wellness. Although the organization offers many different health-related services for employees, the intranet summarizes and advertises them, and the Employee Health Portal consolidates them into a single point of access.

1. **Campaigns:** Multiple health campaigns and activities appear in and below the main carousel to appeal to diverse employee tastes about health and fitness. Making these visible advertises the activities and increases the likelihood that people will know the initiatives exist, learn about them, participate in them, and ultimately be happier and healthier employees.
2. **Initiatives:** Overreaching initiatives — *Live Secure*, *Live Engaged*, *Live Healthy*, *Live Happy*, and *Live Connected* — appear as labeled icons below the campaigns. They are also listed in the left navigation, along with *Rewards Program*, *News*, *Community*, and other elements to draw employees in and encourage participation.

Rewards Tracker

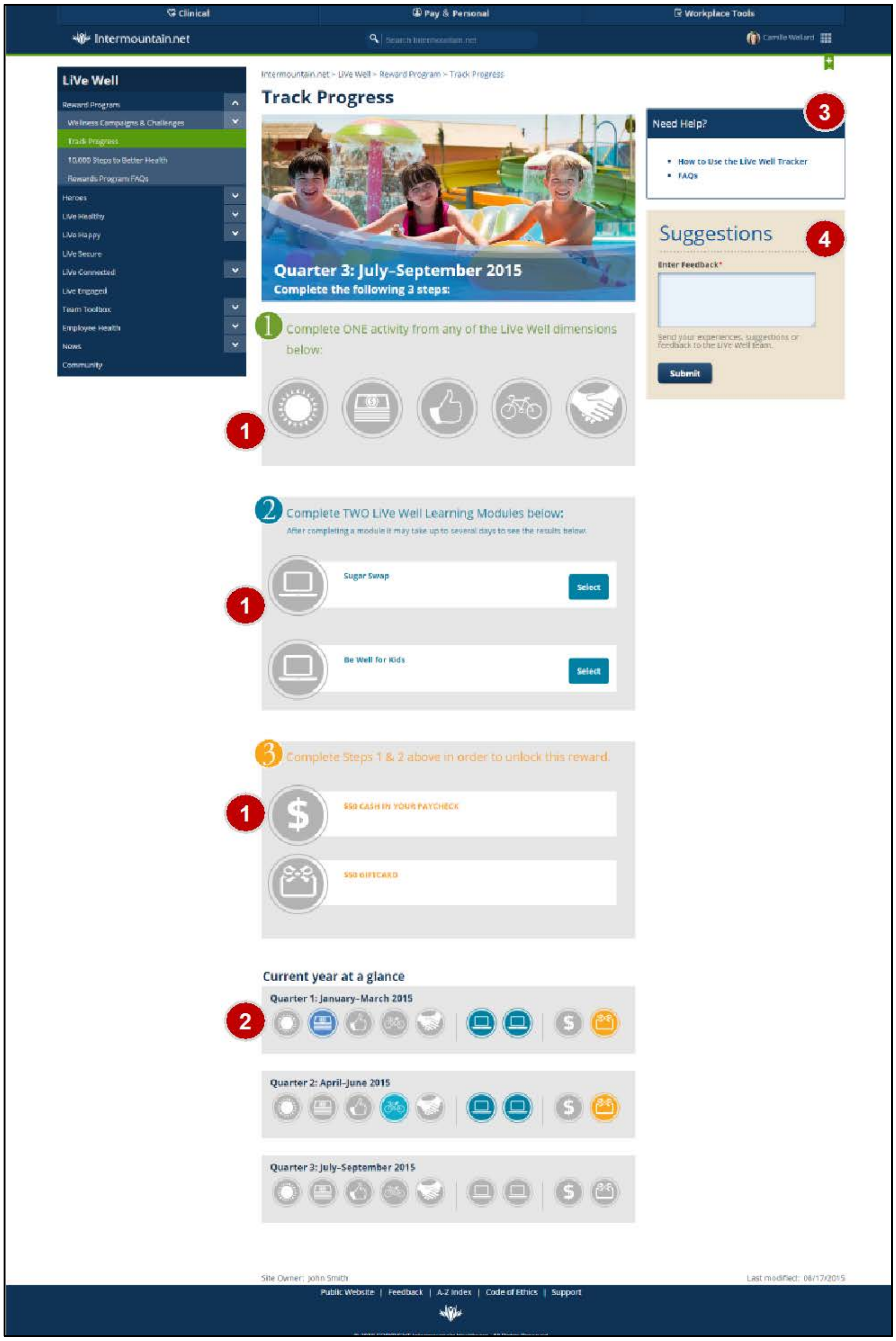
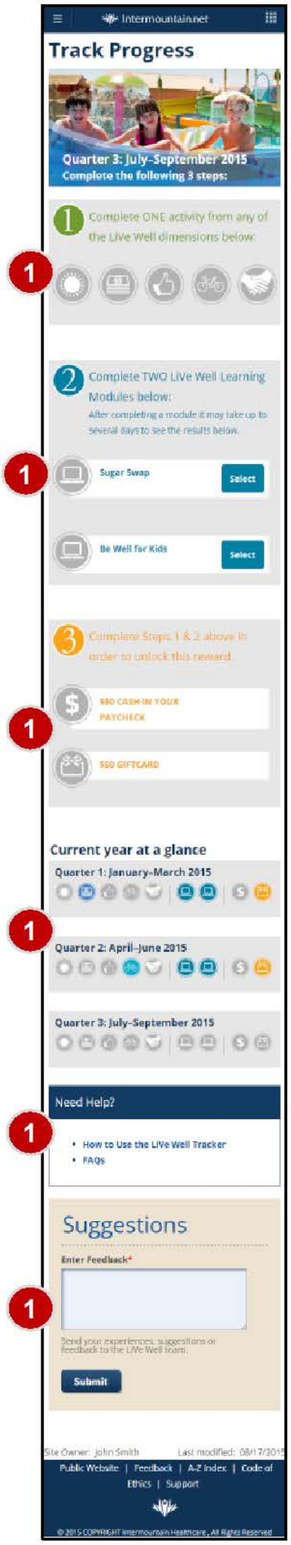


Image 77. Intermountain Healthcare Intranet: Employee Health Rewards Tracker. *77_Intermountain_05_rewardstracker_live.png*

Rewards Tracker Highlights

1. **Steps and rewards:** The steps needed to participate are numbered in chronological order, described, and accompanied by badges when appropriate.
2. **Status:** The *Current year at a glance* section summarizes the employees' achievements, showing potential badge achievements in grey and achieved badges in color. This gamification can help employees recall what they have done, feel good about it, and feel inspired to do more.
3. **Help:** For employees who need a little assistance, the help section in the right rail includes links to *How to use the LiVe Well Tracker* and *FAQs.*
4. **Suggestions:** Employees can share their ideas about the programs via the simple and visible *Suggestions* box.



Rewards Tracker, Mobile UI Highlights

1. **Visible and Simple:** As in the desktop UI, the mobile UI makes each step visible, legible, and easy to follow. Rewards, help, and the *Suggestions* box are also readily available. This is one more example of how the Intermountain team's intranet conquered the small-screen challenge.

Image 78. Intermountain Healthcare Intranet: Employee Health Rewards Tracker Mobile View.
78_Intermountain_06_rewardstrackermobile_live.png

Employee Profile

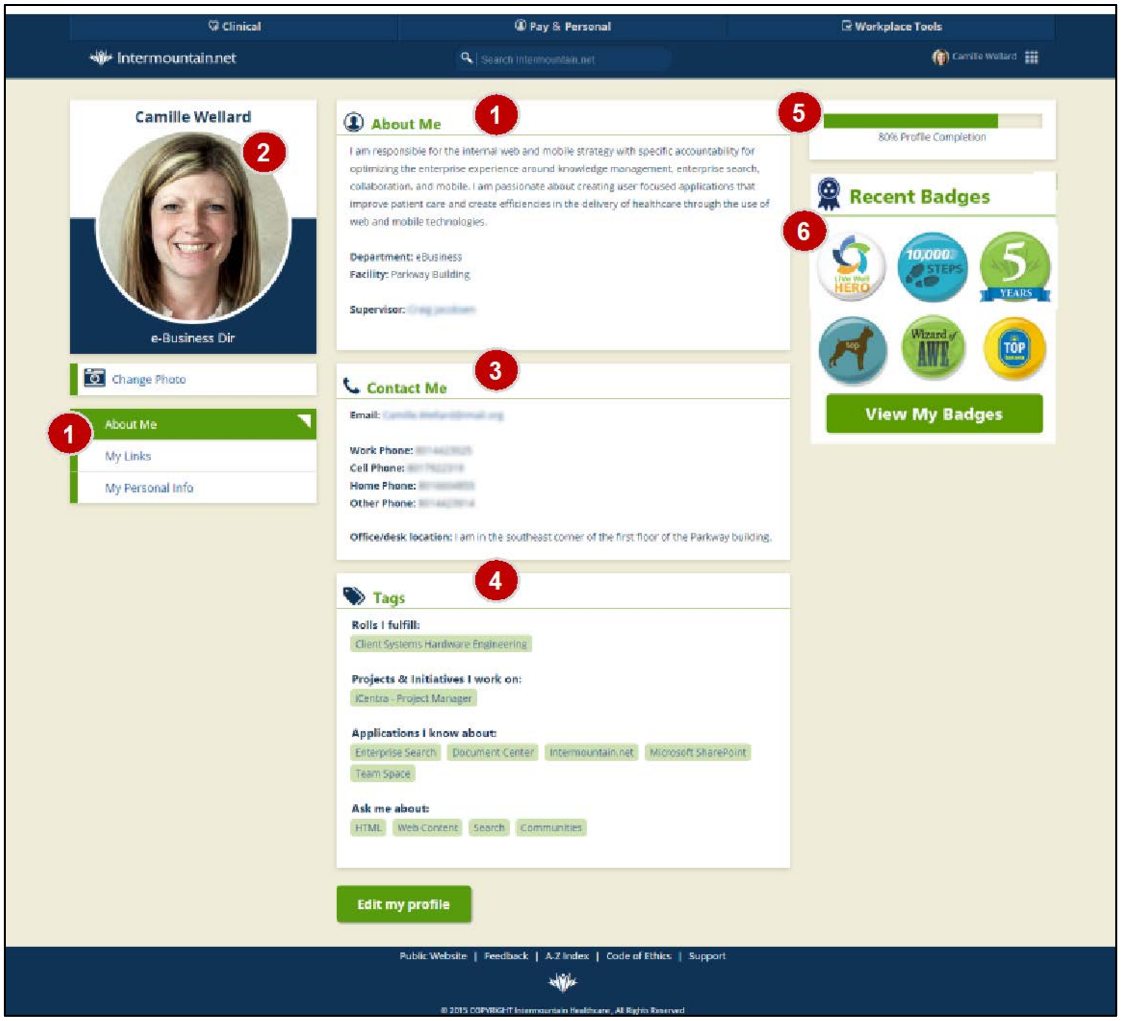


Image 79. Intermountain Healthcare Intranet: Employee Profile.
79_Intermountain_07_profile_live.png

Employee Profile Highlights

The employee profile includes basic information and much more, helping employees find the right people and get to know each other.

1. ***About Me***: Here, employees write what they think is most pertinent for their colleagues to know. They can also add links and personal information.
2. **A Clear Photo:** This helps employees get to know one another. Users can also change their photo easily.
3. **Contact:** The *Contact Me* box offers multiple ways for colleagues to connect.
4. ***Tags***: In the employee search, people can find one another based on topics and affinities, rather than just name or job title. Categories for tags — such

as *Roles I fulfill*, *Applications I know about*, and *Ask me about* — jog employees' memories about what they know and are good at. This encourages them to add more topics, and ultimately creates better communication among employees.

5. **Completion:** Another gamification feature displays the degree to which users have completed their employee profile. The progress bar and percentage status help people realize how far they have come and how far they need to go in building their intranet profile.
6. **Badges:** These are a classic gamification technique, in this case applied to people's work at the organization. Employees can earn badges for a) years of service with the company; b) participation in internal programs, such as the employee health program; and c) participation in communities. Posting and responding to questions in online forums grants points that translate into a badge.

Organizational Chart

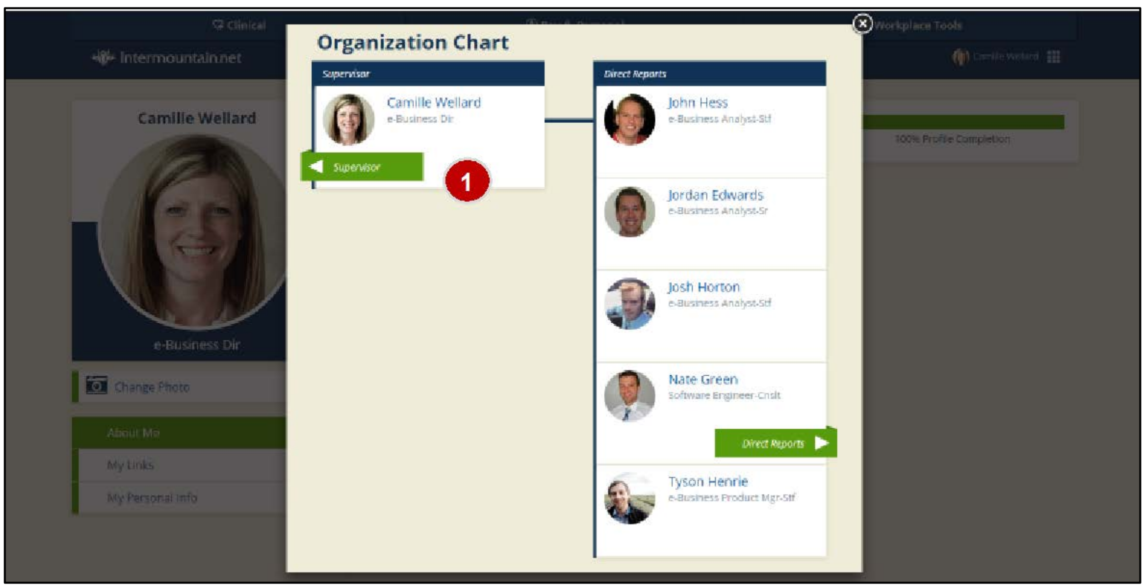


Image 80. Intermountain Healthcare Intranet: Organizational Chart.
80_Intermountain_08_orgchart_live.png

Organizational Chart Highlights

The organizational chart can be linked to from an employee's profile and offers a key benefit to employees.

1. **Context:** It displays where users fit in the formal organization. Photos, names, and job titles help further clarify a person's organizational context.

Megamenu Navigation

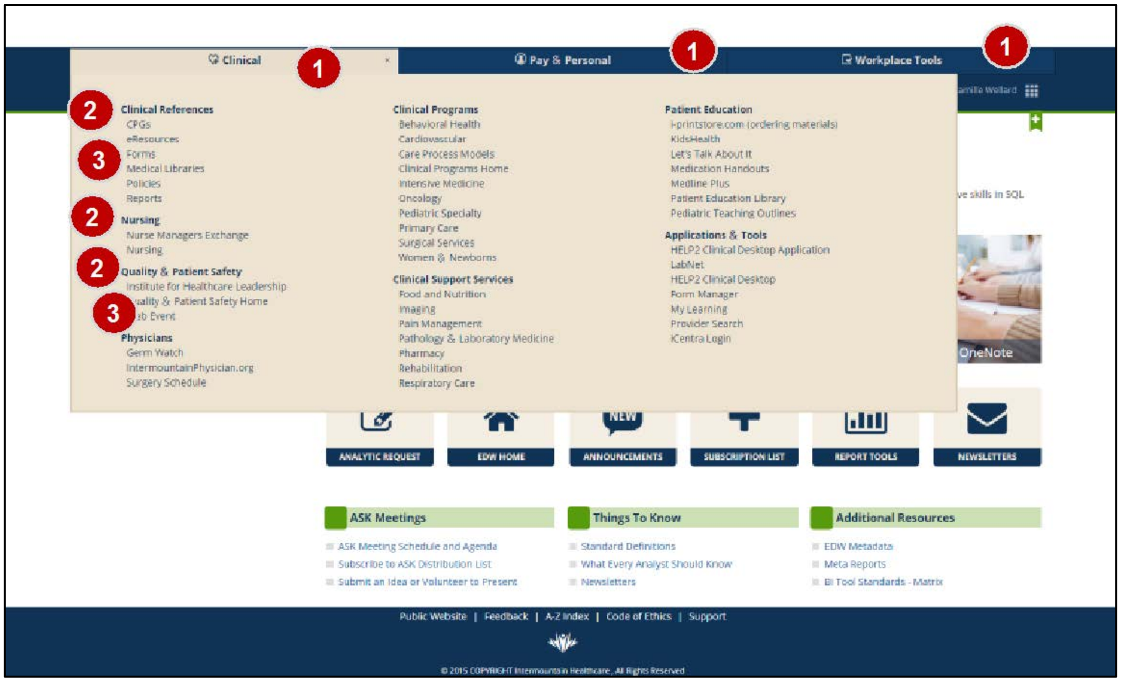


Image 81. Intermountain Healthcare Intranet: Megamenu.
81_Intermountain_09_topnav_live.png

Megamenu Navigation Highlights

The megamenu opens on hover when users access the intranet on a desktop computer. The menu makes it easy for users to scan the available sections and links.

1. **Selection:** The selected global navigation command appears selected and matches the color of the open menu, while the menus that are not selected continue to display as white text on a blue background. This section indicator helps people understand where they are in the design.
2. **Headings:** These words are bolded and appear above and slightly to the left of the links. Headings that are visually stronger and distinct from the links are easy for users to scan to, and help them choose topics they are interested in before needing to read more links.
3. **Links:** The commands below the headings appear as regular, indented text. Clear, unique wording makes it easy for people to understand where the links lead.

Left and Right Navigation Menus

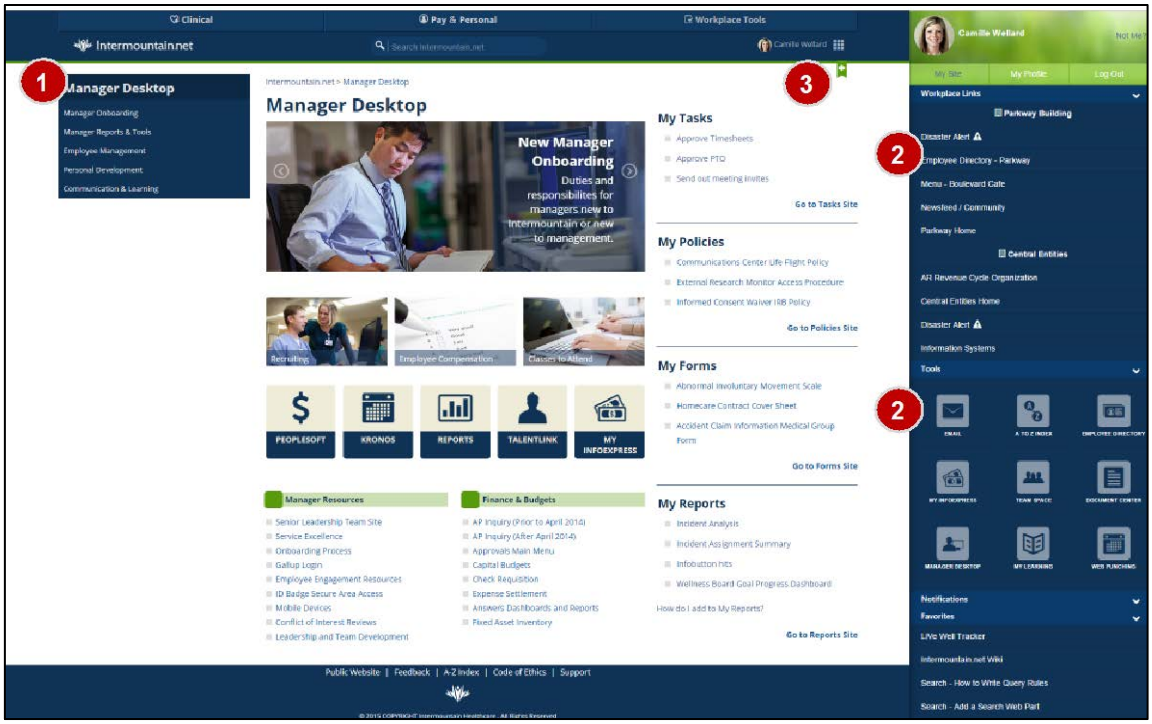


Image 82. Intermountain Healthcare Intranet: Navigation.
82_Intermountain_10_rightnav_live.png

Left and Right Navigation Menus Highlights

Beyond the megamenu, the site offers other imaginative ways to traverse the content.

1. **Left Navigation:** The contextual navigation — that is, the links related to the user's current intranet section — appears on the left, which is an expected location. The site section's title is listed both at the top of the page and in the left navigation, while the section links appear in the colored box.
2. **Personalized Links:** The right-side navigation menu includes links that are personal to the logged-in user. Although these same items appear on the person's homepage, offering them in the ride-side menu lets employees quickly access their personal links from anywhere on the intranet.
3. **Icon to Open / Hide:** The right-side navigation menu is collapsed by default to save screen space, but users can easily open it by clicking or tapping the waffle/grid icon next to the profile name. Clicking or tapping this same icon closes the menu when it's open.

Navigation on Mobile

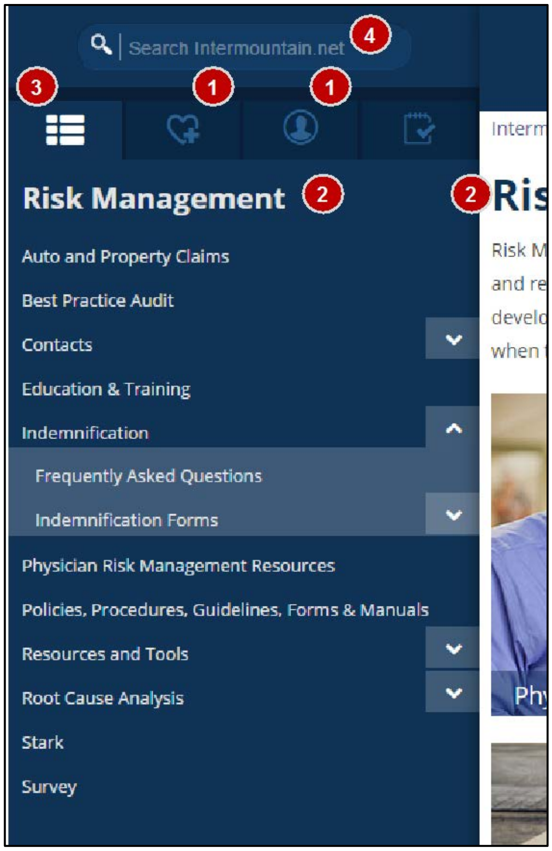


Image 83. Intermountain Healthcare Intranet: Mobile Navigation.
83_Intermountain_11_leftnavmobile_live.png

Mobile Navigation Highlights

1. **Icons:** Users select from icons at the top to get to the local and global navigation. The first tab is the local navigation for the current site. The other three tabs are for the global navigation: *Clinical*, *Pay & Personal*, and *Workplace Tools.*
2. **Left Navigation Title:** In the phone UI, the left-side context navigation continues to list the section name at the top of the menu and as the section page title.
3. **Collapses:** The menu collapses in an icon when not in use, to show more content on a small screen.
4. **Search:** The search field appears at the top of pages, making it readily accessible when typing or speaking a search term is easier than tapping away.

Role-Specific Sections

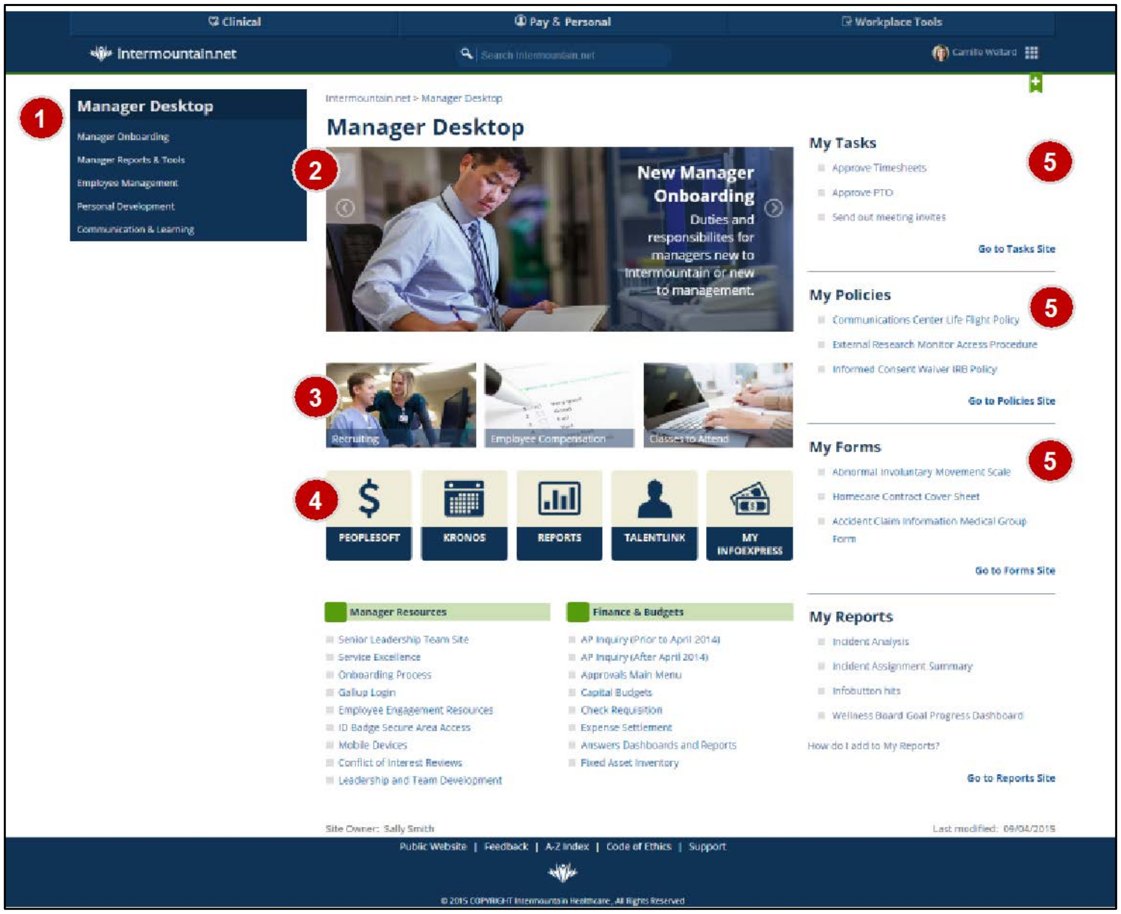


Image 84. Intermountain Healthcare Intranet: Role-Specific Sections.
84_Intermountain_12_rolespecific_live.png

Role-Specific Sections Highlights

Physicians, nurses, pharmacists, managers, and knowledge workers have overlapping needs, but mostly they use different types information and complete a wide variety of tasks using the intranet. Targeted sections of Intermountain.net help serve the best content and tools to specific audiences without cluttering pages for the rest of the employees. For example, the *Manager Desktop* is a portal-like page that aggregates content from many different sources around the organization to make it easy for managers to locate and access tools and resources they need to do their work effectively.

1. **Left Menu:** As users expect, a list of navigation links appears on the left. The links are simple and lead to topics that managers need to know about. Listing these links in the navigation actually advertises and promotes the content to managers, and may call attention to topics they did not originally have in mind. The links here include *Manager Onboarding*, *Manager Reports & Tools*,

Employee Management, *Personal Development*, and *Communication & Learning.*

2. **Carousel:** Important topics display in the carrousel in the top center section of the page. Clearly labeled text is accompanied by an image, and arrows let users scroll forward and backward to see the topic possibilities.
3. **Topics:** Overarching topics that managers need, such as *Recruiting*, *Employee Compensation*, and *Classes to Attend*, appear below the carousel in the page's center section.
4. **Third-Party Tools:** A key goal of the intranet redesign was to integrate helpful third-party tools that employees use. For managers, large icons that link to popular tools such as *PeopleSoft* and *Kronos* were added in the page's center section.
5. **Customizable Links:** In the right rail, managers can view and edit the lists of tasks, policies, forms, and reports to display by default those that are most pertinent to their work. The *Go to … site* links below each respective list of links lead to the full list of link possibilities.

Previous Version of a Role-Specific Section

Image 85. Intermountain Healthcare Intranet: Previous Version of a Role-Specific Page. *85_Intermountain_13_rolespecific_version1.png*

News Section

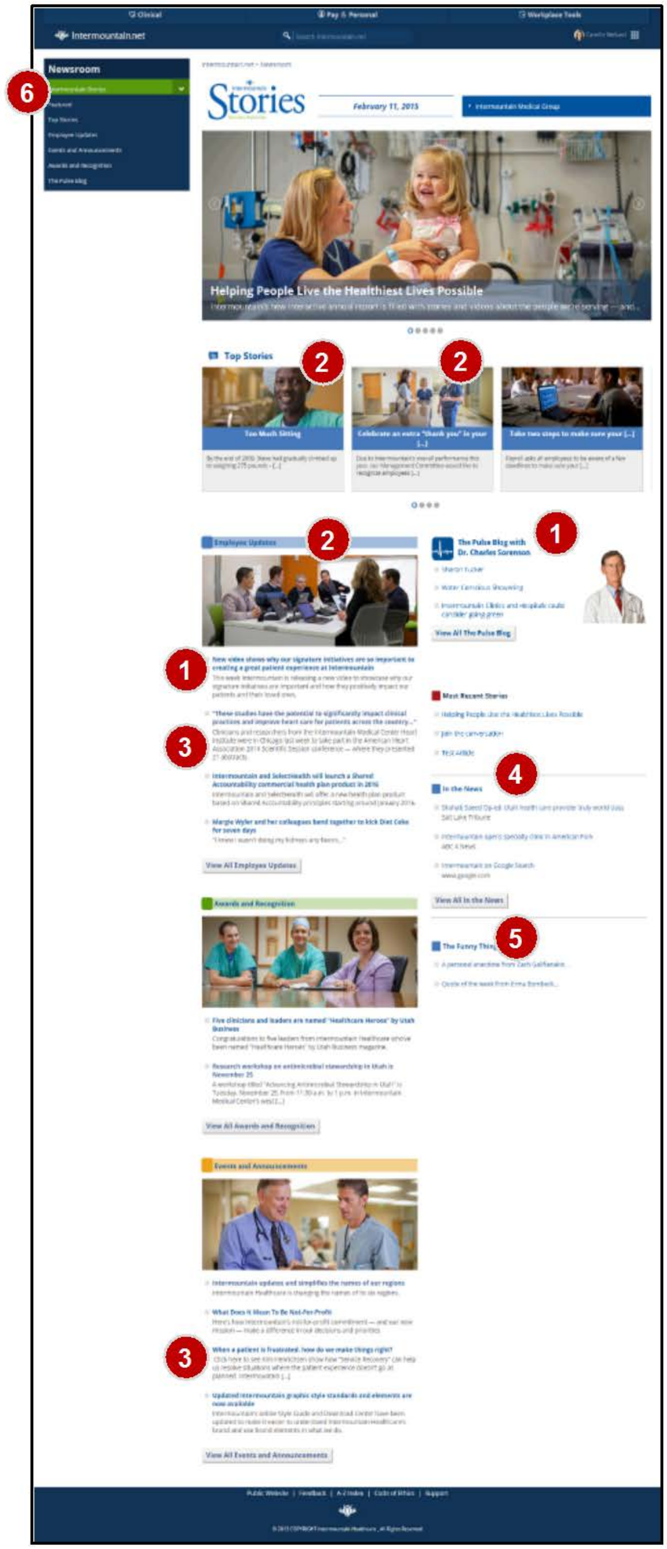


Image 86. Intermountain Healthcare Intranet: News Section.
86_Intermountain_14_news home_live.png

News Section Highlights

A richly populated *Newsroom* displays top stories, updates for employees, awards, and more.

1. **Clear Titles:** Visible titles help employees easily scan the news.
2. **Related Images:** Images add flavor, color, and information to stories.
3. **Summaries:** Brief summaries give employees a sense of the article before they commit to clicking and reading it.
4. **Media:** The *In the News* section links to articles the press has written about the organization.
5. **Humor:** Handpicked quotes and stories from humorists and comics lighten the mood.
6. **Topics:** Employees may look for news items by author name, top stories, and awards and events, making it easy to find specific items of interest.

News Article

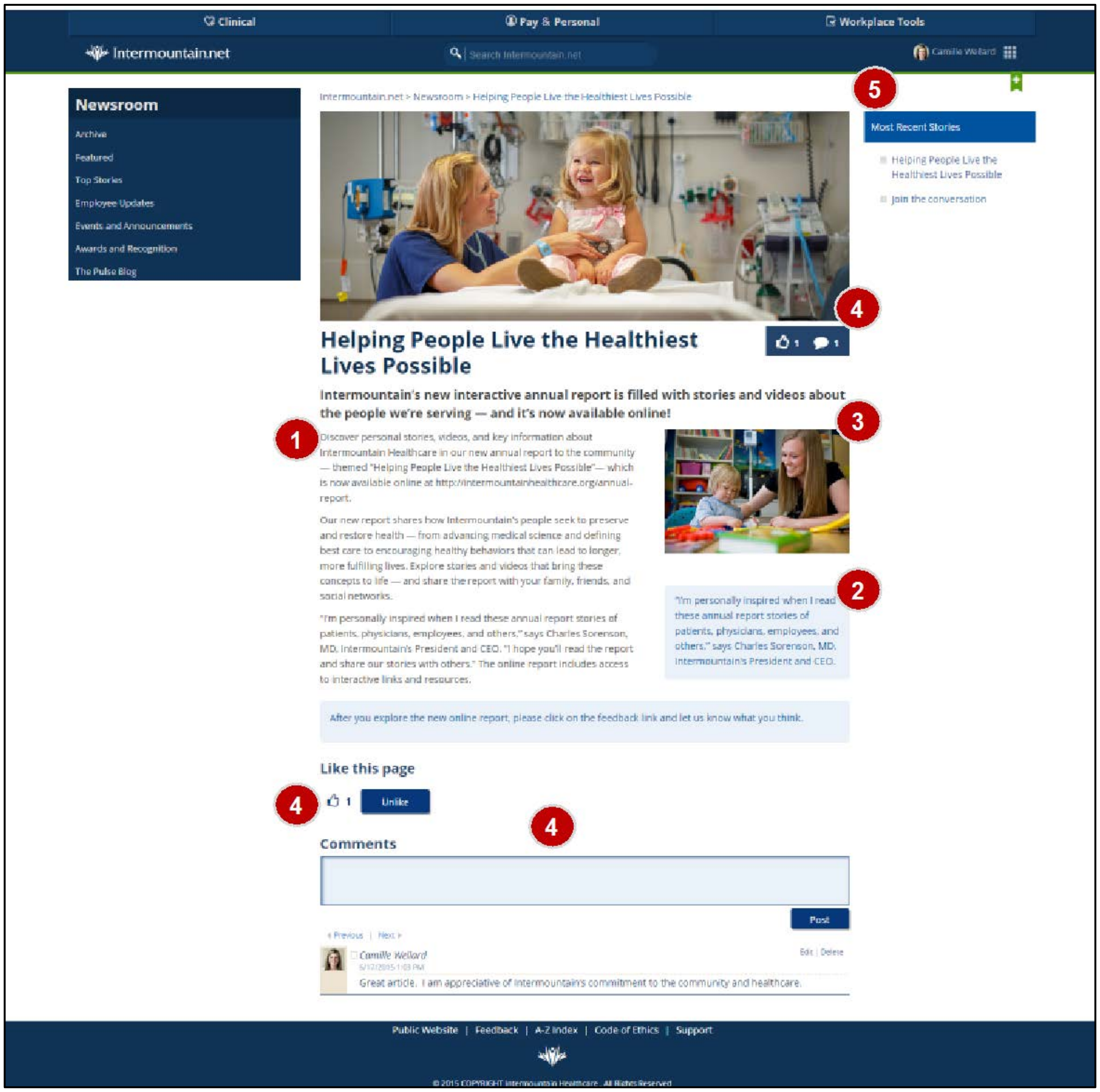


Image 87. Intermountain Healthcare Intranet: News Article Example.
87_Intermountain_15_newsarticle_live.png

News Article Highlights

1. **Narrow Text Column:** This makes text easier to read online, and translates easier to the mobile version.
2. **Callouts:** People can get a sense of the story's content from a few key words.
3. **Related Images:** The images have the right size and content granularity for the allocated space.
4. **"Like" and Comment:** Social features make it possible for all employees to participate and be heard. They also let users see what other employees have to say. Finally, the organization's leaders can read comments to get a pulse on what employees think is interesting and important.
5. **Most Recent Stories:** People looking for other stories can scan to the right and see the newest items to read.

Café, Desktop UI

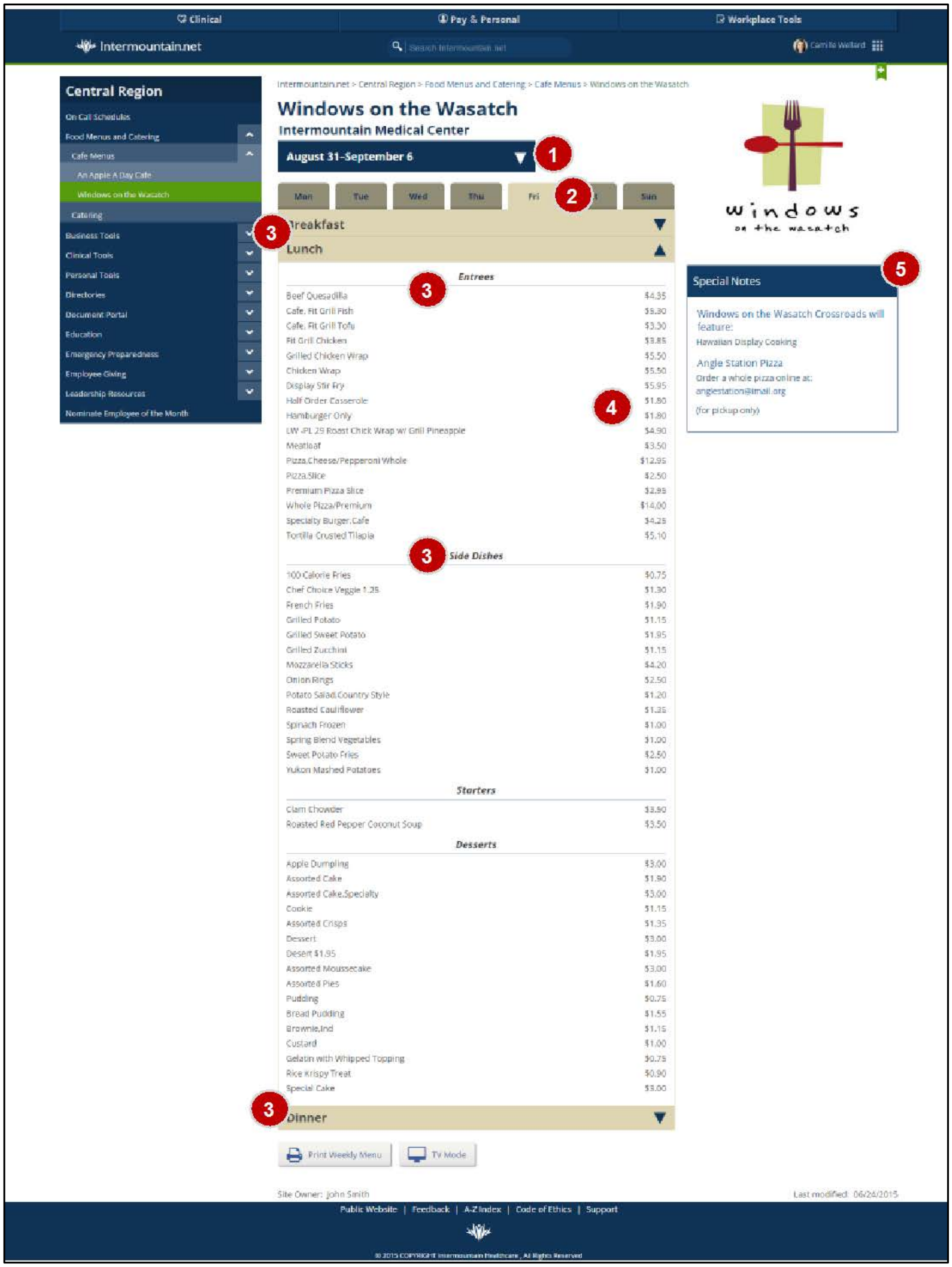
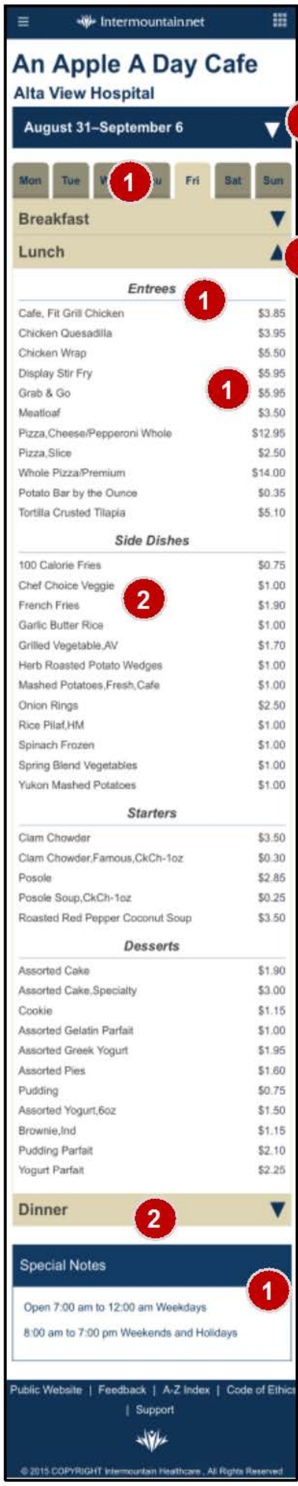


Image 88. Intermountain Healthcare Intranet: Café Menu.
88_Intermountain_16_cafemenu_live.png

Café Menus: Desktop UI Highlights

In any organization with a good cafeteria chef, posting the daily menu on the intranet is almost a necessity. At Intermountain Healthcare, each facility's café menus are popular pages on the intranet. The data is sourced from a core nutrition system, which automatically updates the pages.

1. **Week Navigation:** Employees can choose the current or a future week. This lets them plan what to eat and whether they will have lunch at the café or elsewhere.
2. **Day Navigation:** Clicking a tab displays the menu for specific days of the week.
3. **Meals:** *Breakfast*, *Lunch*, and *Dinner* sections can be expanded or collapsed. The sections are separated into *Entrees*, *Side Dishes*, *Starters*, and *Desserts.* The café menu also includes nutrition info for each item, as the organization wants to encourage employees to plan healthy meals and be aware of nutritional content.
4. **Price:** Each item is listed and priced.
5. **Specials:** Special food items are called out in the right rail.



Café Menus: Mobile UI Highlights

1. **Same Features as Desktop:** Mobile screens offer the same features as the desktop: choose week, expand and collapse meals, item and price, and specials.
2. **Legible Text and Large Targets:** These make tapping and reading very easy, even on a small screen.

Image 89. Intermountain Healthcare Intranet: Café Menu Mobile View.
89_Intermountain_17_cafemenumobile_live.png

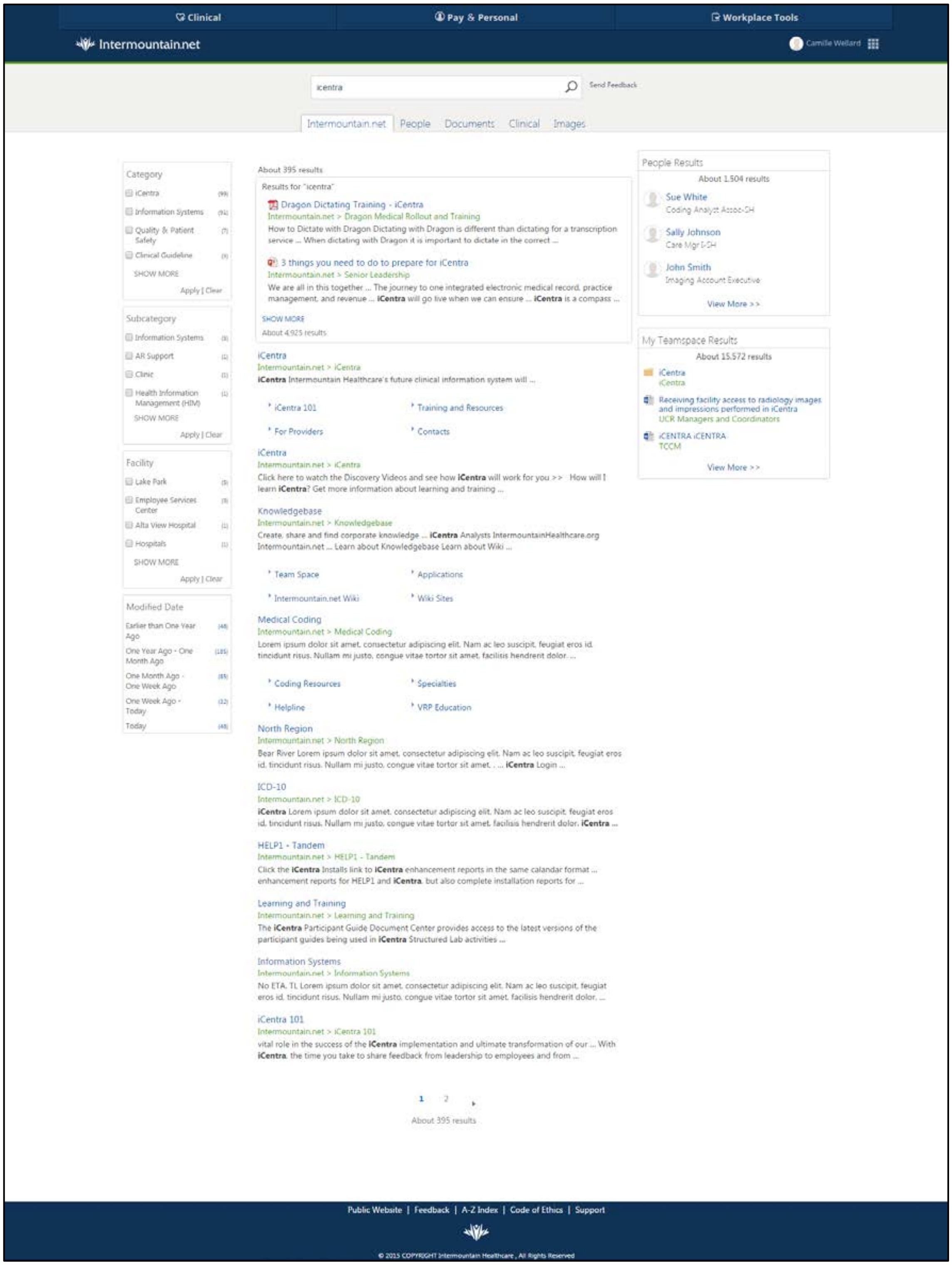


Image 90. Intermountain Healthcare Intranet: Search Results Page.
90_Intermountain_18_searchresults_live.png

DESIGN PROCESS AND USABILITY WORK

Approach and Methods

The team's design approach was defined by the users via surveys, field-testing, and web analytics. The goal to create a responsive intranet also considerably influenced the design.

When creating the new intranet designs, the team utilized several research and validation methods:

- **Analytics:** Team members felt that analytics were an important research approach because analytics gave them a view into what people were already using and finding valuable on the site. Analytics also helped answer questions that emerged early on, such as which tools should be most easily accessible and how disruptive it would be to remove or significantly change various components.

  The team analyzed the usage stats and found search analytics to be most helpful in determining which keyword queries people were searching for most. For example, one of the most searched for keywords was an application that employees use to clock-in and clock-out, view their schedules, and submit PTO requests. Because this was such a popular tool, the team decided to make it one of the key tools on the homepage. Immediately after the new site was launched, searches for this application dropped dramatically.

  Analytics are good at showing what is working or not working with an existing design; they are not as valuable for gauging the potential success of a new design. The team thus included other forms of research and testing to optimize its designs.

- **Researching usability trends and reading published reports:** Because the intranets of other organizations are difficult to access, the team relied on previous editions of the Nielsen Norman Intranet Design Annual to find ideas about which design elements and unique features other companies were incorporating into their intranet designs. This was really helpful for the team; seeing what others were doing gave them ideas on how to design the new site's page templates.

  Another thing the team discovered while researching usability best practices is that a homepage should offer basic but essential content: news, navigation, key tools, key information, community and culture, internal marketing, and collaboration. So they took a cue from that research and incorporated many of these content areas into their new homepage design.

- **Usability testing design prototypes:** After the team vetted some initial designs with key stakeholders, they conducted usability tests. Usability testing was conducted on both the site's desktop and responsive, mobile views.

  These usability tests were helpful for several reasons. Camille Wellard, eBusiness Director explains:

- **"They validated we were on the right path:** One thing we were worried about people understanding was the right fly-out menu. It was a newer concept we hadn't seen on many sites. When we did our usability tests, people were able to understand the purpose of the menu and find it without any trouble."
- **"They helped us catch some improvements we needed to make:** We learned that the font size on our tools was too small and was difficult for some to read, so we increased the font size."
- **"They helped us address some of the anxiety and concerns that come with change.** When we had concerns from stakeholders — such as, 'I don't know that people will understand where to find the top fly-out menus' — we were able to use the usability tests and validate that people were able to find the fly-outs."

Information Architecture

IA is very important to the Intermountain intranet team and always has been. "A strong IA has been a core strategy since the beginning days of the intranet," says Wellard. "Over the years, we have worked closely with key stakeholders, conducted focus groups, and attentively addressed challenges people experience when trying to find information."

IA has been key to the team's success with its intranet. Following is the team's advice for other teams struggling to establish an IA that works.

Recommendations for creating an IA that works:

- **Governance:** Have a strong governance model for what will go in the main menus to keep them focused and purposeful. Establish clear ownership over the site structure and stick to the model.
- **Use analytics:** The Intermountain team tracks analytics on menu items that users click on; they then use that data to assess usage and remove little-used navigation items to help keep the menus focused.
- **Work together to develop sitemaps:** When a new site is requested or a site owner is overhauling an existing site, Intermountain's eBusiness team works closely with the site owner to develop a sustainable, user-focused sitemap. Many site owners think about navigation without viewing the site through the eyes of end users. Typically, site owners have no training in usability or IA, so partnering with eBusiness is very valuable. Site owners bring their domain knowledge and understanding of content needs, and eBusiness brings experience and training in web design, IA, and usability. Together, they create a strong partnership and strong sites.

Adoption and Buy-In

To help the intranet realize its potential and achieve its true value, it is important to include key stakeholders and end users in the process. Intermountain team members have been successful in getting users to adopt intranet tools because they proactively seek to understand their needs and address their concerns. For teams trying to drive adoption to a revamped intranet site, Intermountain's team members offer the following advice:

- **Define goals and objectives upfront.** "When we start a new site, we always begin by identifying goals and objectives. By understanding what we're working toward upfront, projects typically turnaround quicker and result in good experiences and internal relationships."
- **Help solve a problem:** "While working with site owners on a new site, we look for opportunities to solve a problem. If we can identify an area that they are struggling with that could be solved technically, we brainstorm possible solutions and work to implement a technical fix. For example, if a site owner is having a difficult time gathering and managing information, we look at forms and workflows to facilitate their process. These types of solutions are typically easy to implement and create high satisfaction. This helps drive adoption and build meaningful relationships."
- **Create easy-to-use tools:** "Some of the tools built in the previous version of the system were difficult to use and made you think twice as you were using them. In our new SharePoint 2013 implementation of the authoring tools, we took extra time to evaluate and optimize the site owner and content contributor experience. Our goal is to make contributing content to the site so easy that those that are assigned to do it aren't intimidated, and hopefully even enjoy working on their sites."
- **Provide training and support:** "One key to getting adoption is to have great training for those using the system. We provide instructor-led training twice a month. We also have thorough documentation of the steps required to author content and provide best practices for maintaining a site. Finally, we will do one-on-one training for those that need additional help. Having a strong training and support system is key to maintaining users of the system and driving adoption."
- **Find good example sites:** "Having a strong example site helps people know what options are available and what they are working toward. It also helps showcase best practices and proper implementation of the templates. These example sites can also help generate excitement as people are able to see the improvements from the old designs to the new designs, and it encourages people to move quickly to update their own sites."
- **Engage early adopters:** "Early adopters help drive adoption by generating positive word of mouth about the new designs and authoring tools. They can be used as example sites and can help lay the foundation for future successes with other departments."
- **Plan for change management.** "Change can always be difficult to deal with. We got some pushback from users, but we have communicated the positive changes that the redesign provides. Training, support, and knowledge management have been huge."

OUTSIDE AGENCIES	
Agency	**Project Role**
Solution Stream Web design consultant	• Helped with the initial designs for the header, footer, and intranet homepage

GOVERNANCE

The intranet is owned by the Information Systems department's eBusiness team. It fits into a broader knowledge management, collaboration, enterprise search, and mobile strategy.

Originally, Intermountain's Strategy department owned the intranet. This helped set a strong foundation for a successful intranet approach. As corporate needs evolved, however, the intranet began to report to the Information Systems department and has continued to operate as a strategic information service.

One of the challenges of managing an intranet is governance. "We view the owners of the intranet as all employees," says Wellard. "When we need support for new initiatives, it can be challenging to find a business sponsor as the initiatives transcend any one particular group."

The way the team overcomes this challenge is through strong leadership and by building relationships with its key stakeholders.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
eBusiness Team	• Governs the intranet • Drives the vision and development of web and mobile strategy and overall look and feel • Manages the CMS, education and training, and promotion • Works with site owners to develop IA, sitemaps, and new page templates, and to determine content needs
Site Owners	• Build, manage, and maintain their own site and its roles, access, and content • Train site contributors/content owners and serve as a resource to help them maintain and manage the site
Site Contributors/Content Owners	• Work with site owners to create and manage sites • Provide content and continued maintenance of the site
User Group	• Provides feedback and best practices, and helps drive roadmap for new features • Made up of site owners, contributors, and key stakeholders

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://intermountain.net
Default Status	• The intranet is set as each user's homepage; users cannot change this setting.
Remote Access	• The intranet is available outside of the firewall, and employees regularly access it while off the network to obtain information and key tools.
Shared Workstations or Kiosks	• Many users — especially nurses and other clinicians — access the site via shared workstations. Many shared computers are located in patient care areas and are used by multiple people throughout the day.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
2003	Launch of first intranet
2007	**Team Space:** Launch of this enterprise collaboration tool, which lets employees share documents, calendars, tasks, and more with their teams
2010	**Document Center:** Launch of enterprise document management tool integrated with other intranet functionality such as search
2011	**Internal collaboration tools:** Launch of social communities
October 2013–January 2014	Planning for new responsive designs for header, footer, and homepage
March 2014	Usability testing of new header and homepage
April 2014	**Launch of new design:** Header, footer, and homepage launched on SharePoint 2010
July 2014–December 2014	Planning and development of new responsive page templates on SharePoint 2013
January 2015	Launch of first redesigned SharePoint 2013 intranet subsite
October 2015	Final intranet site moved to SharePoint 2013; intranet redesign complete
Overall redesign time frame: October 2013–October 2015 **Note:** In addition to being a site redesign, the organization used this project as an opportunity to upgrade sites from SharePoint 2010 to SharePoint 2013, which added to the project's development time and complexity and made it last much longer than if they had stayed on the same SharePoint version.	

CONTENT AND CONTENT CONTRIBUTORS

<table>
<tr><th colspan="2">CONTENT MANAGEMENT</th></tr>
<tr><td>Contributors</td><td>The intranet has more than 250 content contributors and site owners; the business unit that owns each site chooses the latter. For site owners, the site might constitute all or only part of their job function. For example, the Communications departments typically have a full-time employee assigned to manage the internal and external websites. For most site owners and contributors, however, working on the site is only a part of their job function.</td></tr>
<tr><td>Contribution</td><td>The team has worked to encourage content contribution in several ways:
Analytics: The team sends site owners reports that show them which site sections and pages are most popular and which type of content people are trying to locate. This helps the site owners understand the site’s valued content and helps guide the creation of new content.
User groups: The user groups are a great way to encourage dialogue among site owners, letting them express the success they’ve had with certain types of content or tools and brainstorm ways that others could use them on their sites.
Visible ownership: The bottom of each page lists the content owner and the last-modified date. This helps encourage content owners to keep their content current for two reasons: first, it’s their name and reputation associated with the page’s content; second, users can reach out to them directly if there is a problem with the content or the page is missing content they need.
Social features: Certain types of content have features that let users “like” or comment on the content. This helps engage content owners and gives users a voice.</td></tr>
</table>

Training	• **Instructor-led training** is offered twice a month. The introductory class focuses on the basics of site management. Another class is more advanced and is intended for power users. Users can view the training schedule and register for classes from the intranet. • The team also provides an online **knowledge base with wiki articles** that users can review anytime. These articles walk users through a step-by-step process on how to manage intranet sites.
Management	• Site owners are primarily accountable for a site's content. eBusiness will periodically complete site audits to determine if content needs to be updated or reviewed. Many of the site owners are from the company's Communications department and have formal training in writing. • The name of the content owner is listed on each page, along with the date that the content was last modified. Explicitly listing content owners helps encourage them to maintain the content because users can reach out to them directly if there is a mistake or a needed update.
Maintaining Quality	To maintain quality content, the Intermountain team offers the following advice: • **Have the right people managing the sites:** The Communications team is heavily involved in managing and reviewing site content and helps ensure that it meets standards. • **Work closely with site owners:** The Intermountain team works closely with site owners and, in some cases, works directly with content contributors. The team created a sitemap that outlines the content needed for the site. Also, because team members have a good understanding of what already exists on the site, they can help direct site owners to other content to minimize duplication. • **Encourage brevity:** The move toward responsive design has given the team an opportunity to persuade content writers to keep things simple and direct to accommodate space limitations.

Culling Content	While working on the site redesign, the team was able to successfully eliminate some of the outdated content on the site by reviewing each site individually. Team members used analytics to create a heat map to show which content was being viewed regularly and which wasn't being viewed at all; they typically deleted the latter. They stored outdated but needed content on the site in an archive folder that was hidden from search engines and permissioned only to content owners.

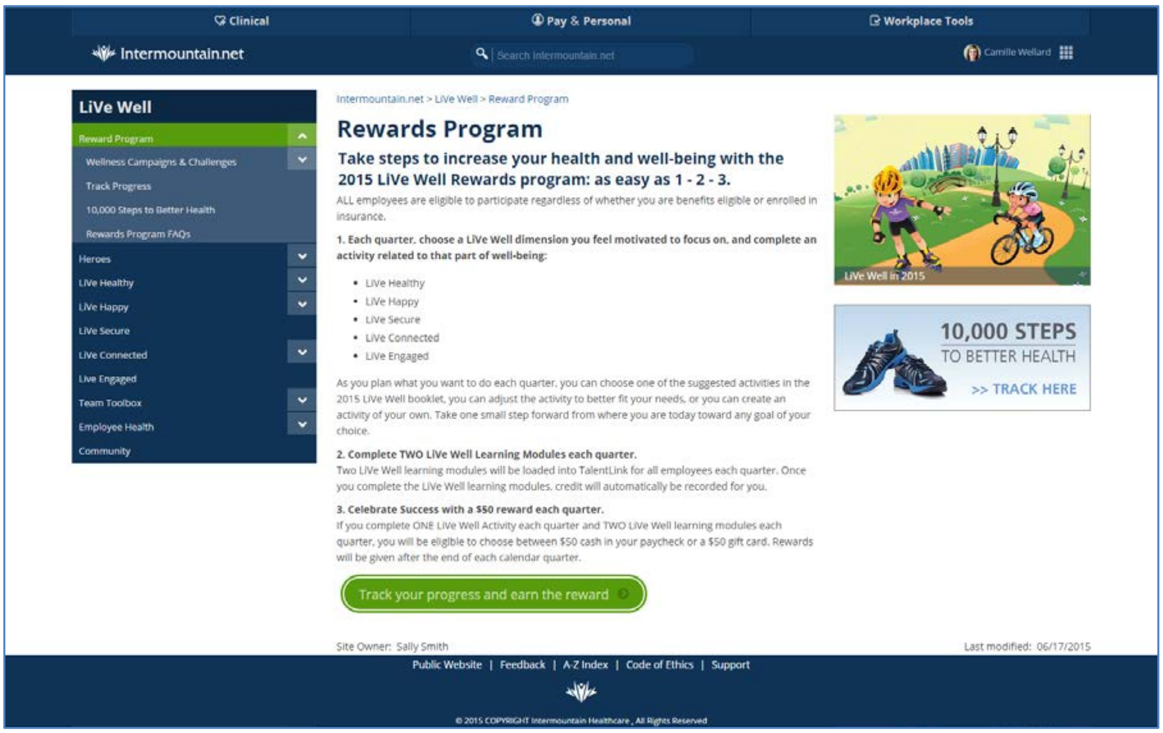


Image 91. Intermountain Healthcare Intranet: Content Page. Content pages were developed to make it easy for site contributors to author content. The templates are optimized to give content authors creativity within the site's design and branding parameters. With the old site, many content owners created their own graphics and pseudo-templates. In contrast, the new site has a cohesive design and user experience due to the easy-to-use templates that accommodate diverse content needs.
91_Intermountain_19_contentpage_live.png

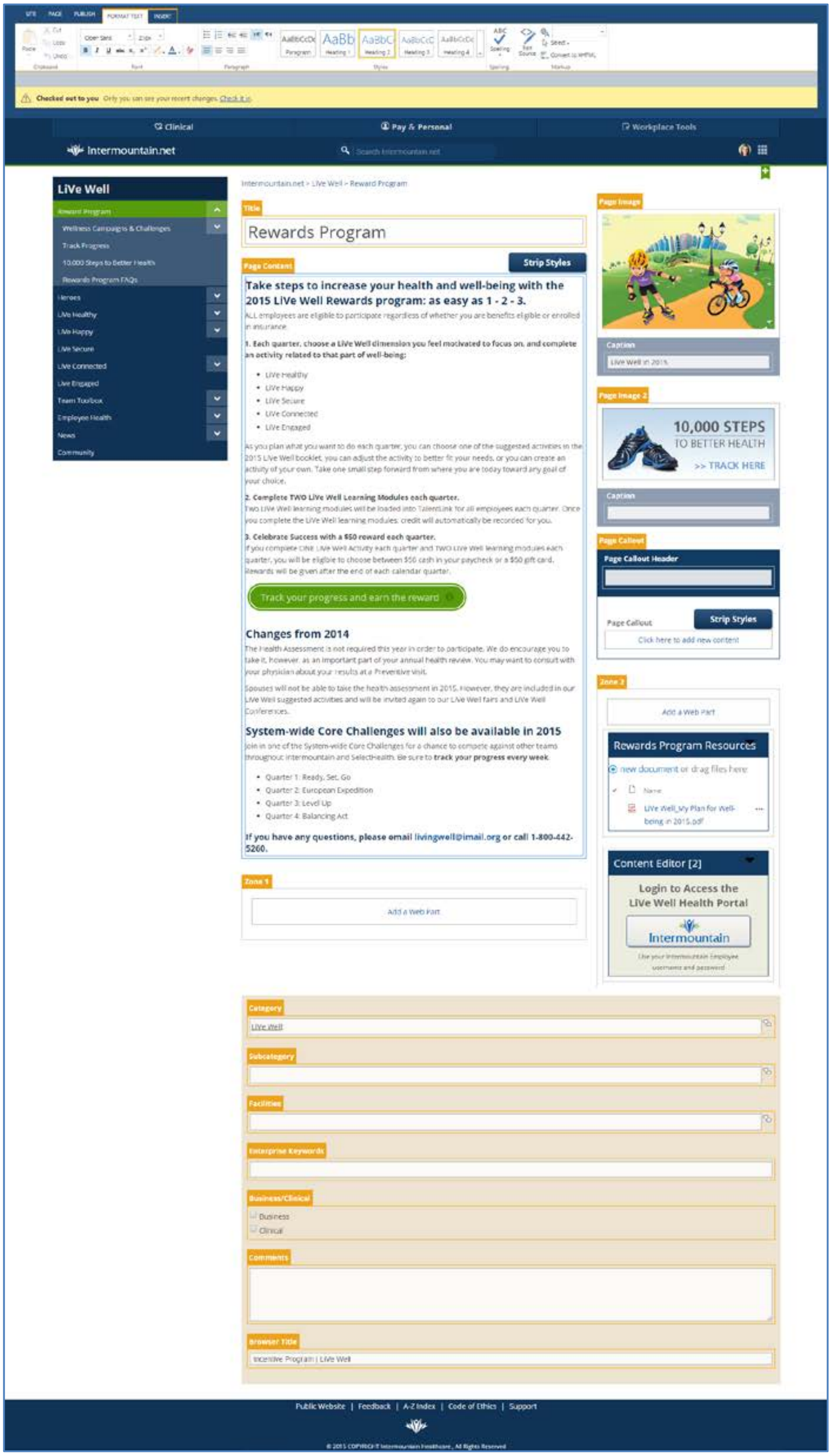

Clinical
Pay & Personal
Workplace Tools
Intermountain.net
LiVe Well
Intermountain.net > LiVe Well > Reward Program
Title
Rewards Program
Page Content
Strip Styles
Take steps to increase your health and well-being with the 2015 LiVe Well Rewards program: as easy as 1 - 2 - 3.
ALL employees are eligible to participate regardless of whether you are benefits eligible or enrolled in insurance.
1. Each quarter, choose a LiVe Well dimension you feel motivated to focus on, and complete an activity related to that part of well-being:
LiVe Healthy
LiVe Happy
LiVe Secure
LiVe Connected
LiVe Engaged
As you plan what you want to do each quarter, you can choose one of the suggested activities in the 2015 LiVe Well booklet, you can adjust the activity to better fit your needs, or you can create an activity of your own. Take one small step forward from where you are today toward any goal of your choice.
2. Complete TWO LiVe Well Learning Modules each quarter.
Two LiVe Well learning modules will be loaded into TalentLink for all employees each quarter. Once you complete the LiVe Well learning modules, credit will automatically be recorded for you.
3. Celebrate Success with a $50 reward each quarter.
If you complete ONE LiVe Well Activity each quarter and TWO LiVe Well learning modules each quarter, you will be eligible to choose between $50 cash in your paycheck or a $50 gift card. Rewards will be given after the end of each calendar quarter.
Track your progress and earn the reward
Changes from 2014
The Health Assessment is not required this year in order to participate. We do encourage you to take it, however, as an important part of your annual health review. You may want to consult with your physician about your results at a Preventive Visit.
Spouses will not be able to take the health assessment in 2015. However, they are included in our LiVe Well suggested activities and will be invited again to our LiVe Well fairs and LiVe Well Conferences.
System-wide Core Challenges will also be available in 2015
Join in one of the System-wide Core Challenges for a chance to compete against other teams throughout Intermountain and SelectHealth. Be sure to track your progress every week.
Quarter 1: Ready, Set, Go
Quarter 2: European Expedition
Quarter 3: Level Up
Quarter 4: Balancing Act
If you have any questions, please email livingwell@imail.org or call 1-800-442-5260.
Zone 1
Add a Web Part
Page Image
Caption
Page Image 2
10,000 STEPS
TO BETTER HEALTH
>> TRACK HERE
Caption
Page Callout
Page Callout Header
Page Callout
Strip Styles
Click here to add new content
Zone 2
Add a Web Part
Rewards Program Resources
Content Editor [2]
Login to Access the LiVe Well Health Portal
Intermountain
Category
LiVe Well
Subcategory
Facilities
Enterprise Keywords
Business/Clinical
Business
Clinical
Comments
Browser Title
Public Website | Feedback | A-Z Index | Code of Ethics | Support

Image 92. Intermountain Healthcare Intranet: Content Edit Page. Team members paid careful attention to providing a good user experience for content authors. They wanted to encourage people to continue to contribute content and generate enthusiasm for working on their sites; the team thus ensured that the content input tools and templates were straightforward and easy to use. *92_Intermountain_20_contentpagedit_live.png*

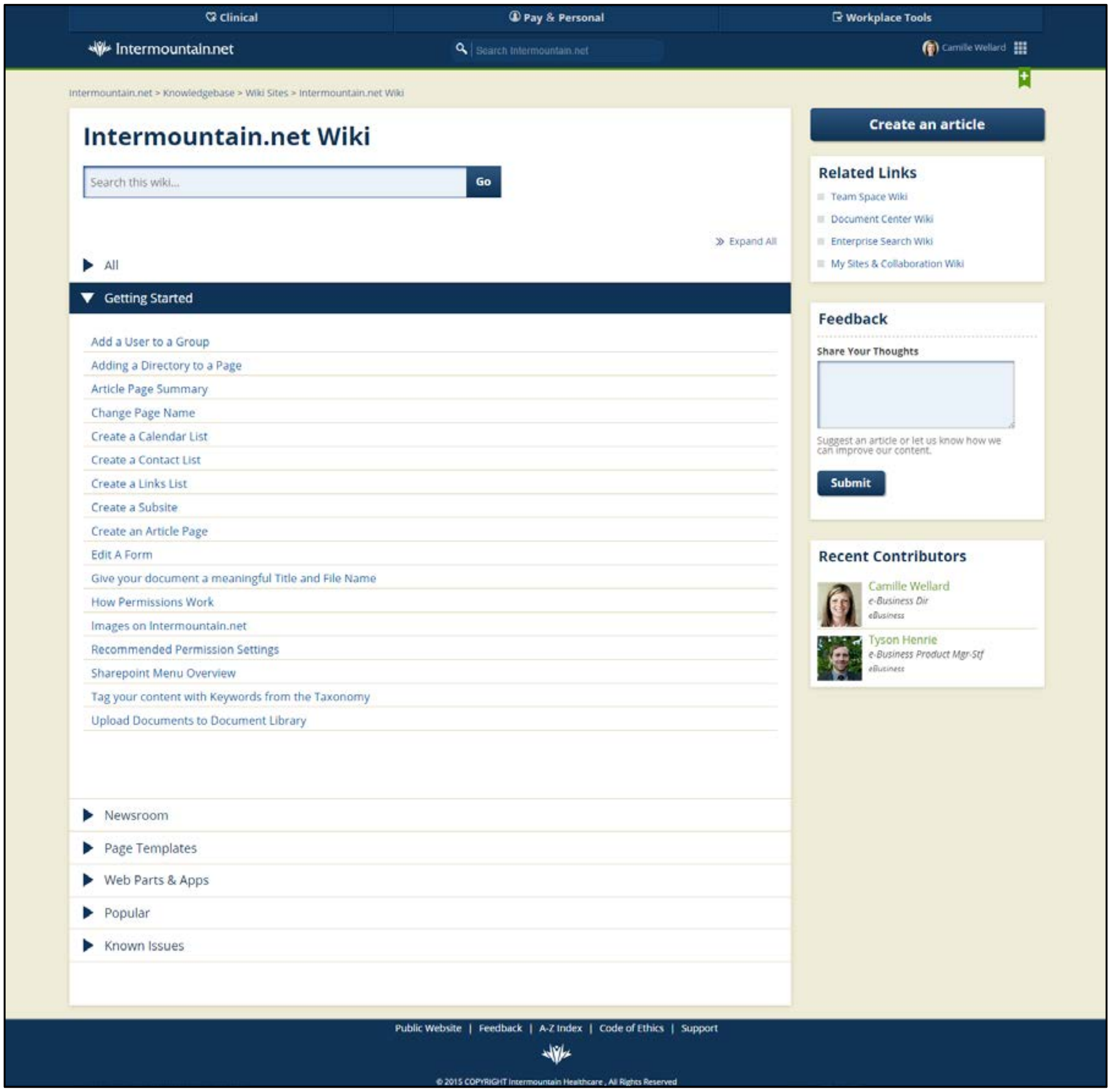


Image 93. Intermountain Healthcare Intranet: Training Wiki Homepage. *93_Intermountain_21_trainingwikihome_live.png*

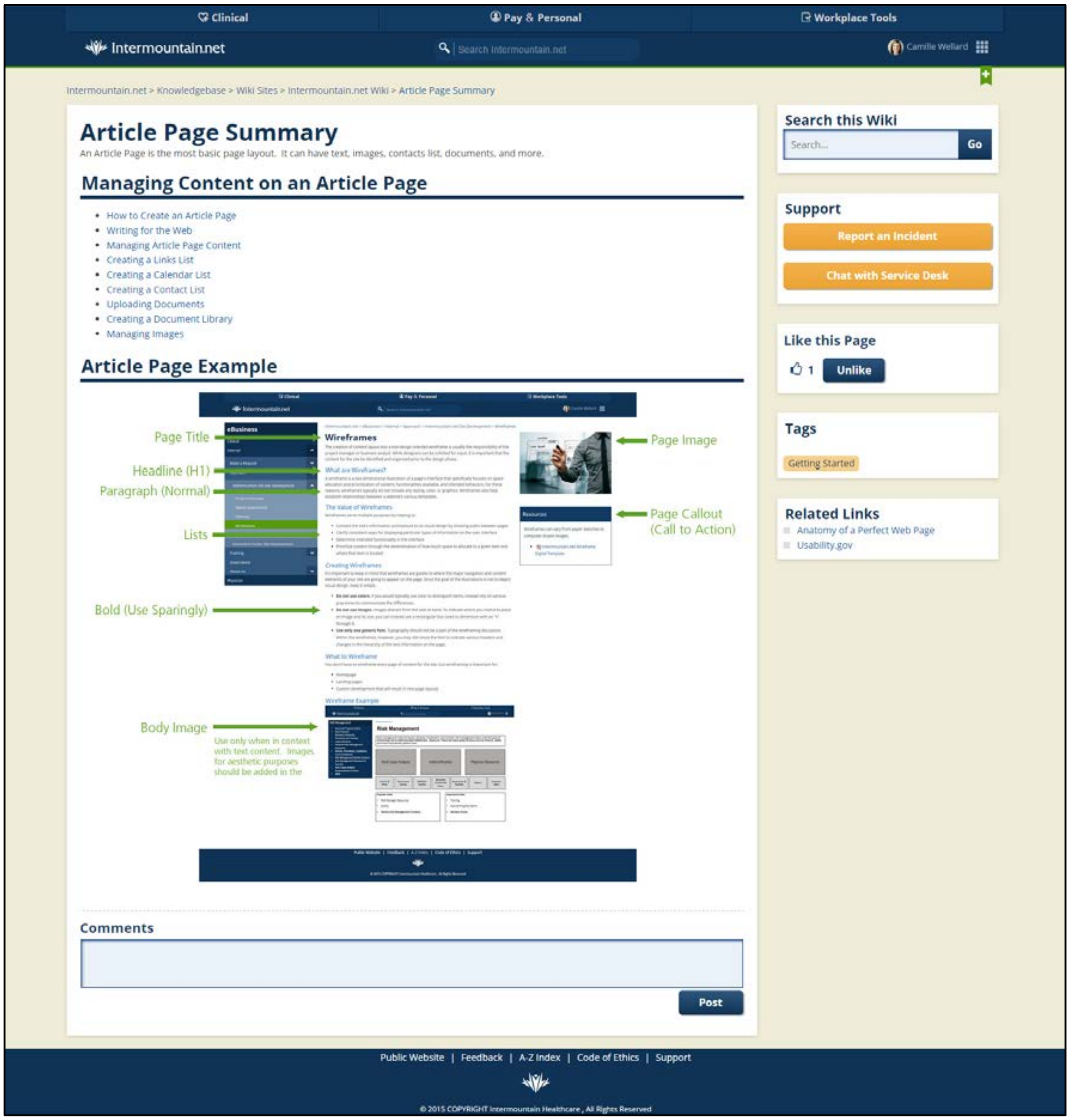


Image 94. Intermountain Healthcare Intranet: Training Wiki Example Article. *94_Intermountain_22_trainingwikiarticle_live.png*

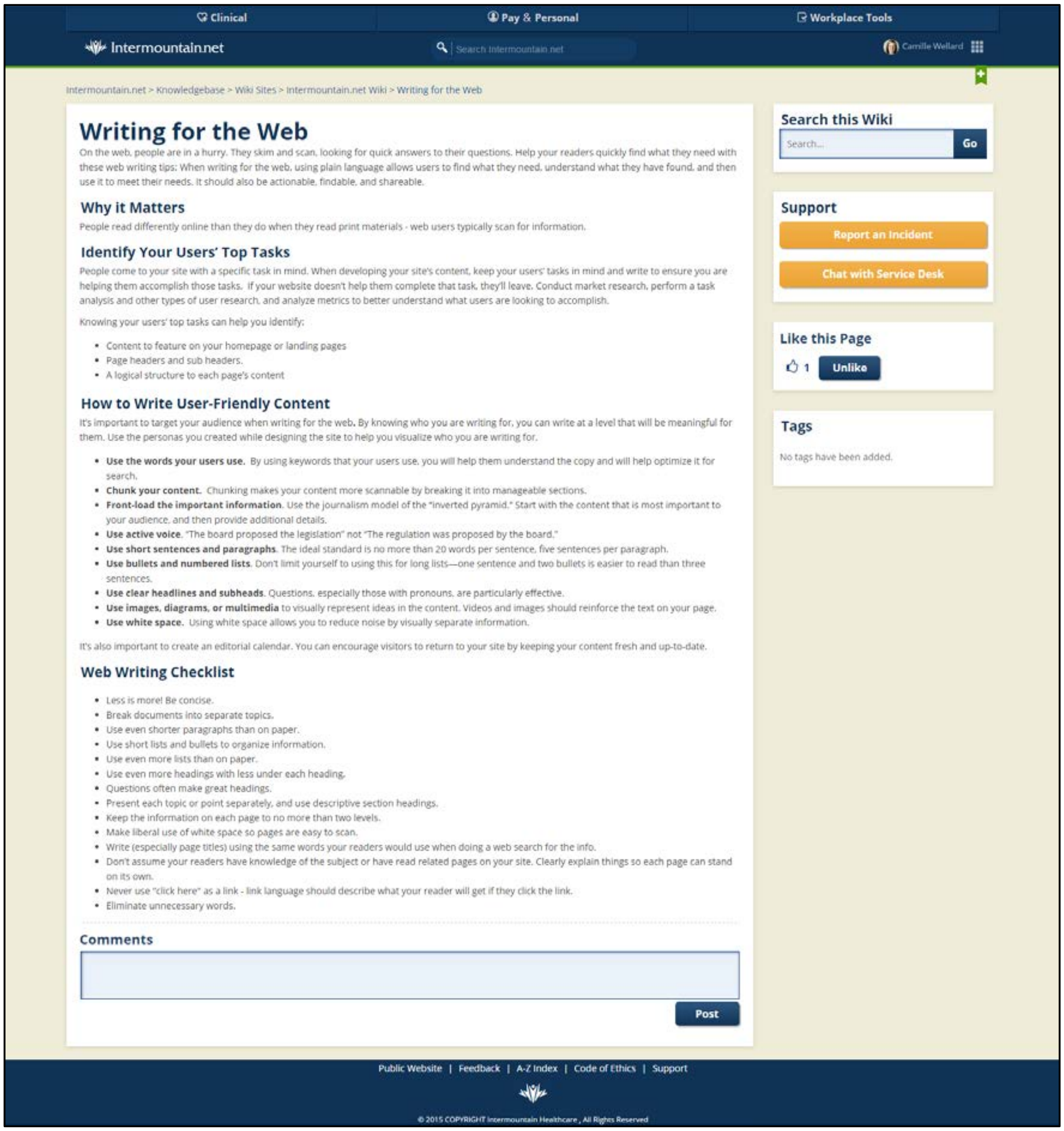


Image 95. Intermountain Healthcare Intranet: Writing Guidelines.
95_Intermountain_23_trainingwritingguidelines_live.png

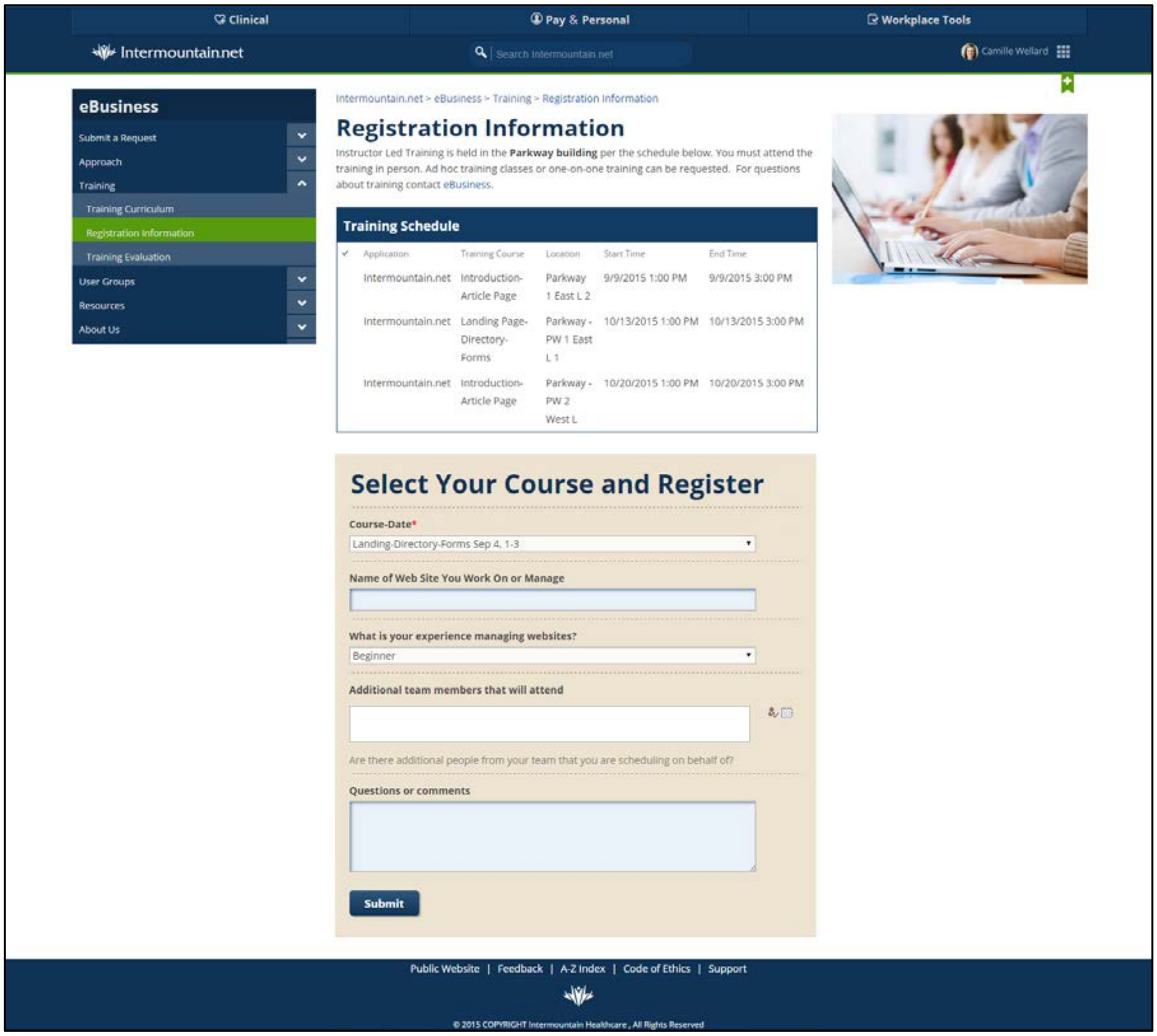


Image 96. Intermountain Healthcare Intranet: Training Course Registration. *96_Intermountain_24_trainingregistration_live.png*

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Bug Tracking / Quality Assurance	• SharePoint List
Design Tools	• Adobe Creative Suite, InVision
Content Management Tools	• SharePoint 2013
Search	• SharePoint 2013

RESULTS AND ROI

The Intermountain team has seen a 100% increase in mobile site visits since it launched the new designs. The vast majority of the traffic still comes from desktop users, but the increase in mobile traffic is promising.

To gauge the success of the new designs, the Intranet team members used several key indicators:

- **Increased engagement:** "We have seen an increase in engagement from our site owners and content contributors. Site owners are creating more content and looking to the intranet more and more as a way to promote initiatives and achieve business goals. There is also an active user group that is interested in improving their sites and extending their offerings." (Wellard)
- **Better quality content:** "Site owners and contributors are building higher quality sites. They are utilizing the writing standards and templates that have been provided for them. They are also transitioning old paper processes into online processes. Finally, they are turning their documents into web pages, which helps increase the quality of content on the site." (Wellard)
- **Inclusion in projects:** "Internal stakeholders are seeking the consulting and involvement from eBusiness in their projects. They are looking to integrate their third-party applications into the intranet to create a better, seamless experience. The reason they are reaching out to us is that they like the strategy and approach with the new designs and can see the value in working closely with the eBusiness team to achieve their objectives." (Wellard)
- **Increased user participation.** "Increased usage and participation is one way we track success. For instance, in employee profiles, we can track how many people have uploaded a photo or populated a specific field. At the very least, increased participation indicates interest in or perceived usefulness of any given feature by our employees." (Tyson Henrie, Product Manager)

- **Changes in user feedback.** "Receiving positive user feedback has been helpful in gauging the success of the new designs. We are also able to correlate positive results when we *don't* get feedback. For example, when we make a change to the homepage and employees start using it without problems, we know that it is working." (Henrie)
- **User reliance on intranet features.** "Search is one of the most important tools we provide to employees. When search functionality is broken, we hear about it immediately. On the other hand, sometimes there are features we don't hear are broken until several days or even weeks after they are broken. This can be a good indication that the feature has not been highly adopted. Although this metric is more informal, it is a helpful way for us to measure the value of the tools we build." (Henrie)

LESSONS LEARNED

The Intermountain project team members share some lessons learned:

- **Know where you're going.** "Intranets are tough. There are many different systems and people you need to work with to create a valuable, end-user focused portal for employees. One thing I've learned is that you need to plant seeds early and often in order to achieve long-term strategies and objectives. For example, if you want to integrate with another internal system to increase usability and overall employee satisfaction, it can take a lot of time to 1) convince the other teams that it is a meaningful project; and 2) complete the work to make the integration. If you know where you're going, you can plant seeds with key stakeholders when appropriate. When the time is right, people will think to include you in their project." (Wellard)
- **Nothing encourages a team or demonstrates value more than a win.** "Start with the easy things. When you can show value and show it with a quick turnaround, it has a snowball effect. Not only will the team that you helped provide the quick-win recognize the value and want to continue to work with you on future projects, but other teams will as well." (Wellard)
- **A strong governance model is key.** "As internal ecosystems become more and more diverse and the application landscape looks to become more integrated, it is important to have support and policies in place to ensure that it doesn't become the Wild West." (Wellard)
- **Building strong relationships helps you identify where you'll get the biggest bang for your buck.** "By building strong relationships with key sponsors and stakeholders, they will look to the intranet as a key component to their strategies. Relationships will help connect the dots between complementary objectives." (Wellard)

- **Build the case for usability.** "I was in a meeting recently and someone used the term 'usability' without me mentioning it first! We are ruthless promoters of usability and regularly start our discussions with a 'Call for Usability in the Enterprise.' Usability needs to be part of corporate culture, and by providing a good model for usability through the intranet, you can demonstrate the value and role usability can have with other applications." (Wellard)
- **Collaborate with end users.** "I learned it's extremely important to collaborate with end users to effectively understand their viewpoint. Yet, once all the user data has been gathered, it's imperative that you stay focused on your unique perspective. Be flexible, but make the right decisions to benefit your organization as a whole." (Josh Horton, Business Analyst)

Nate Green, the Engineering team lead, shares some of his team's SharePoint lessons learned:

- **UX engineers with SharePoint experience are very valuable.** "SharePoint is a beast. If your UX staff is willing to learn it, your SharePoint customizations will be better."
- **Apply customizations to multiple cases.** "When creating customizations, it's best if you can find ways for them to be applied to multiple use cases rather than individual use cases."
- **Reusability is important in large intranets.** "Build your customizations around your platform's strengths. SharePoint does certain things very well. Leverage those strengths rather than reinventing the wheel where possible."
- **Talented and available system administrators are important.** "Most of our 'blocker' issues were due to platform issues. Make sure you have enough support staff to help as your Intranet grows."

NAV CANADA

OVERVIEW

COMPANY

NAV CANADA is Canada's Air Navigation Service Provider (ANSP), managing 12 million aircraft movements a year for 40,000 customers over more than 18 million square kilometres. It is the world's second-largest ANSP by traffic volume.

Headquarters: Ottawa, Canada

Company locations: NAV CANADA operates in 130 facilities located across Canada.

Locations where the intranet is used: In all Canadian provinces and territories, and remotely from Asia, Europe, the Middle East, the US, and the UK.

Annual sales: $1.27 billion CAD (reported revenue for 2014)

THE INTRANET

Users: The company's intranet, Central, supports all of NAV CANADA's 4,650 employees, whether they connect via one of the company's 130 facilities located across Canada or remotely while travelling to the many countries where NAV CANADA sells its air traffic management systems technology. Central is used as a hub for communicating information available to all employees, such as corporate policies, benefit and compensation content, company news, service desk FAQs, and the employee directory. Central is used as the reference point for people managers seeking information on key managerial activities, such as personal development and recognition. Central is also the organization's standard collaboration platform, hosting departmental, working group, and project repositories for storing and collaborating on content using a single platform.

Mobile approach: HTML5 mobile web app designed for smartphone form factor

Technology platform: SharePoint 2013

TEAM

Design team: Approximately 200 people were involved in the intranet project.

The project was sponsored by senior leaders from every function, including the CEO. Each leader appointed a functional senior manager to the project's steering committee, which met on a monthly basis to oversee the project.

The 15-person core project team included resources from both NAV CANADA and its external partners, who were co-located and actively contributed to the project's success.

The core team was supported by an extended business team of 150 people located across the country, many of whom would become content managers and/or site owners for their respective departments; and an extended IT team of 20 people who played pivotal roles in helping to implement and manage the underlying infrastructure.

Leadership: Simon Robert, Program Director

Core Team: Frances Ashe, Project Coordinator; Kim Boulet, Change Management Lead; Can Ciplak, SharePoint Administrator; Jean-Pierre Frigon, SharePoint Developer; Brad Garner, SharePoint Developer; Dan Heron, Business Analyst; Raymond Ho, Technical Delivery Manager; Jorden Johnson, User Experience Coordinator; Bethany Johnston, Project Manager; Nick Kellett, Engagement Partner; Julie Kent, Business Analyst; Erik Mercier, Functional Lead; Goran Mraovic, User Experience Designer; Daniel Sanscartier, SharePoint Architect; Milos Stojanovic, SharePoint Developer; Hoking Xu, SharePoint Developer

EXTERNAL PARTNERS

StoneShare (Ottawa): IT consulting firm that provides solutions and services focused exclusively on Microsoft's SharePoint platform. StoneShare was the prime partner and key contributor in planning the intranet replacement project and was responsible for architecting and implementing the new intranet.

Atomic Motion (Ottawa): Design and web development company specializing in design, digital marketing, and app/software development. Atomic Motion was responsible for the new intranet's user experience design.

INTRANET TEAM

Team members shown here (left to right): Kim Boulet, Milos Stojanovic, Daniel Sanscartier, Dan Heron, Raymond Ho, Jean-Pierre Frigon, Bethany Johnston, Erik Mercier, Simon Robert, Nick Kellett, Hoking Xu, Brad Garner, Can Ciplak, Goran Mraovic, and Frances Ashe.

HIGHLIGHTS ABOUT THIS WINNER

- **Simplicity in Look and Feel:** Calm colors and lots of white space make the site feel simple and soothing.
- **Business Communication:** Several features help employees truly understand the business NAV CANADA is in and recognize the various projects and undertakings happening at the organization. For example, the *Project Highlight* and *Employee Highlight* features on the homepage call out current activities, processes, and information that are core to the business.
- **Project and Department Information:** Thorough and consistent information about departments and projects are communicative and helpful, and transform many groups and individuals from strangers to understood and very approachable colleagues.

- **Help and Wikis:** Many intranets leave users to their own devices, but Central helps users through processes such as creating a collaboration site. Guidance and suggestions help employees to be more productive and confident as they do tasks that are new to them.
- **Targeted Mobile:** A few very important features, such as employee search, are offered with a well-thought-out mobile experience.

BACKGROUND

The impetus for the intranet redesign was multi-pronged and was a response to both content management and technology challenges the organization was facing.

NAV CANADA's content management requirements had grown substantively as the company was transitioning to a digital workplace where reliance on the exchange of electronic information and the tools that facilitate these transactions were becoming increasingly important to its business.

The company's employee-facing legacy portal was more than 10 years old, no longer met business requirements, and carried a large infrastructure footprint that was expensive to maintain. The underlying software platform was also severely limited in its capabilities compared to modern intranet technologies; it also suffered from a dated user experience and ineffective search engine, making it very difficult for employees to find information and collaborate. Managing the site's content required IT resources spending unnecessary time and effort to make even the simplest of changes.

Without a modern enterprise content management (ECM) platform, content management needs were met outside the legacy portal using a mix of custom-developed and commercial point solutions. Some of these systems were more than 10 years old as well, and many were no longer meeting basic business requirements such as offering reliable search and self-service tools. Not only were these systems obsolete, but they addressed only a portion of the company's overall content management requirements.

These deficiencies were driving employees to spend excessive amounts of time navigating these legacy information silos to manage and find the information they needed on a daily basis. This meant that the rising opportunity costs of the effort spent using these legacy systems were significant, costing the company time and productivity that could otherwise be spent on higher-value work. Employees were demanding a more effective and modern solution capable of meeting business requirements.

Before they could develop an action plan, team members needed to do research and conduct planning activities. With the assistance of the company's lead systems integrator, StoneShare, the team completed a comprehensive planning phase over a period of four months, known internally as "phase 0." This was a chance for the team to gather requirements, conduct business process reviews, develop the SharePoint architecture, and produce an implementation roadmap and risk assessment plan for deploying SharePoint to the enterprise.

"The work conducted with StoneShare was instrumental in putting forward a clear and convincing business case to replace the legacy intranet, which was supported by a very strong fact base," says Simon Robert, ECM Program Director. "However, it's important to note that phase 0 also provided a tremendous opportunity for the project team to engage all the key stakeholder groups — 11 departments in our case — secure their buy-in early, and begin managing the change required for the new intranet."

Goals

NAV CANADA created its new intranet to address the following goals:

- **Provide a modern and effective online experience** that would
    - Improve search
    - Improve user experience and enhance design
    - Streamline content layout and navigation
    - Reduce legacy portal content by 70%
- **Offer a wider range of online services to help employees**
    - Access corporate content
    - Receive content on personal and corporate mobile devices
    - Engage with each other and with the organization through the use of collaborative technologies
- **Reduce costs associated with web technologies to**
    - Eliminate obsolete systems and infrastructure
    - Provide self-serve content management capabilities

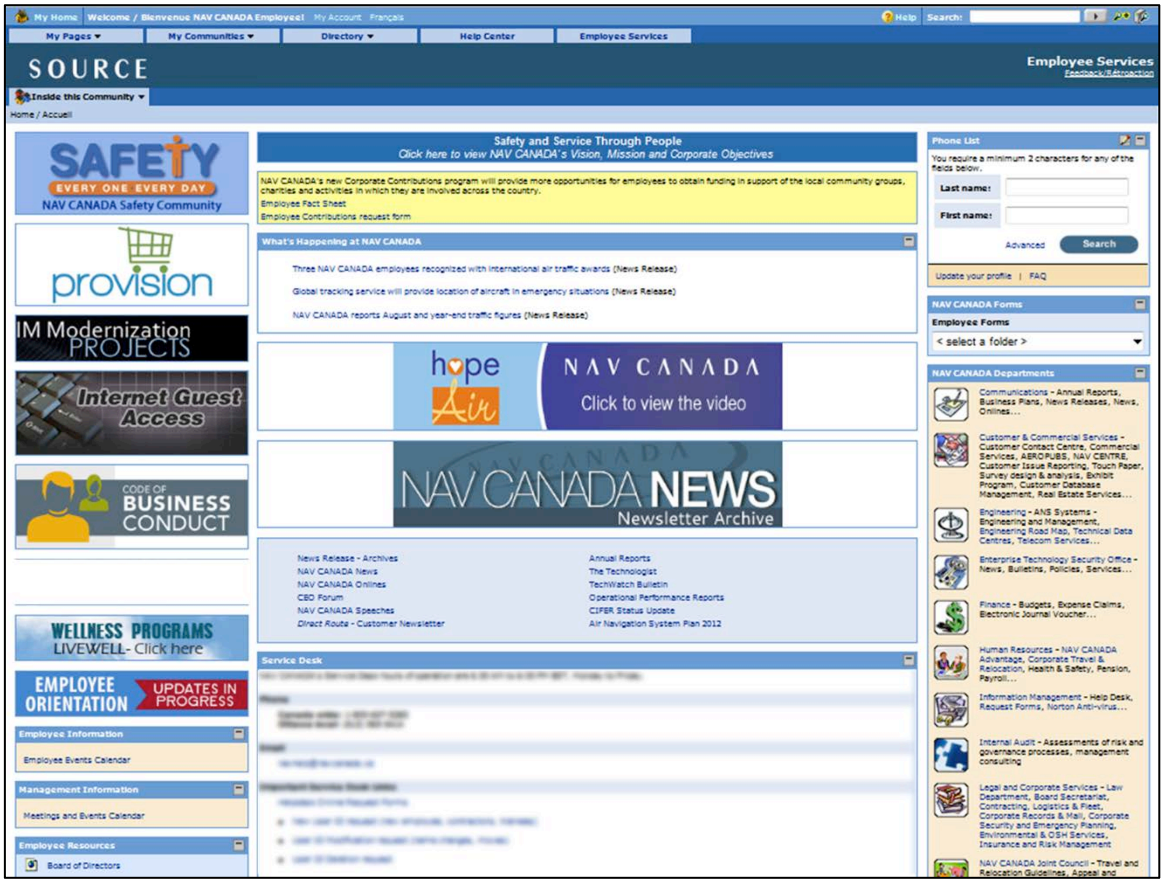


Image 97. NAV CANADA Intranet: Legacy Portal Homepage. On the old intranet, departments would compete for real estate on the homepage, which resulted in an excessive amount of links and banners to promote various initiatives. The content clutter overwhelmed users, and the site was no longer meeting business requirements. *97_NAVCANADA_01_HomePage_version1.png*

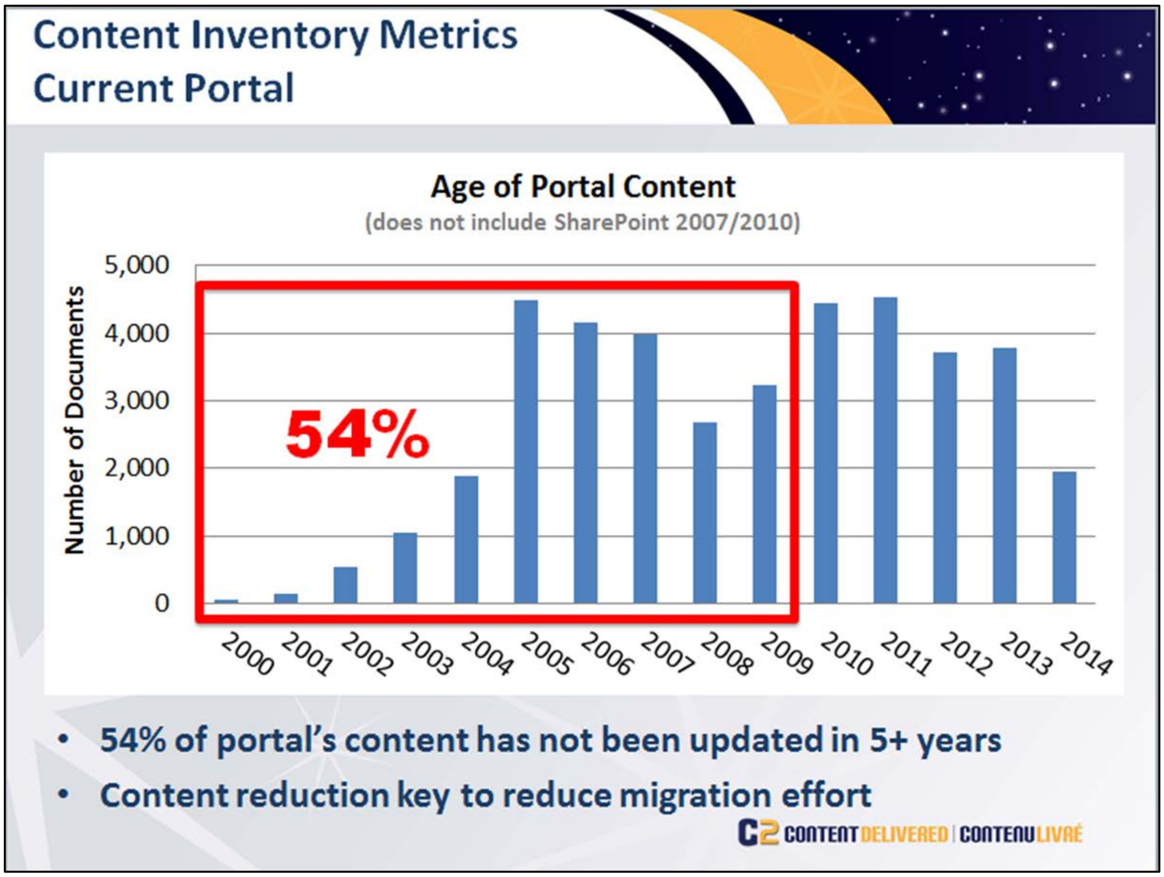
CHALLENGES

The challenges inherent in this type of undertaking are significant. The NAV CANADA team overcame many obstacles with this project, including the following:

Content Challenges

- **Content retention:** When the NAV CANADA's team found out that 54% of documents hadn't been modified in five years they knew that users were over-retaining content and the team had to take a no-nonsense approach to content migration.
- **The importance of content reduction:** The team realized early on that it needed to reduce the amount of content that would be migrated from the legacy systems because — among other reasons — the less content migrated, the less time the migration would require.

- **Challenges with the content inventory and migration (CIMM) tool:** The project team decided to develop a custom content inventory and migration tool (CIMM) for the legacy portal's content as there were no third-party tools that could handle the migration. The CIMM tool evolved from a simple SharePoint list to a complex process requiring much more effort than anticipated to complete. The development of CIMM in the early stages of the project disrupted the technical team's work until the solution was completed.
- **Migrating critical content:** Planning and executing such a large migration (more than 200,000 documents) while trying to preserve the content integrity — such as location and metadata — was by far the greatest challenge faced during the project.



Following a detailed content inventory of the NAV CANADA legacy intranet, the design team produced this slide to inform stakeholders of the state of the legacy portal's content and to reinforce the message that content needed to be cleansed prior to migrating to Central. The slide clearly shows that 54% of the content had not been updated in five years. This data was key to get stakeholder buy-in for the team's plan to cut content on the legacy portal by 70%.

Other Challenges

- **Managing enterprise search permissions:** Central's powerful search function identified a small number of documents that did not have sufficient permissions in their original SharePoint 2007/2010 environments. Due to a poor search experience in these legacy environments, these permission gaps were not detected until after the content was migrated and live in Central. As a result, the project team had to work closely with the business after go-live to address the permission gaps on affected documents.
- **Business resource availability:** The intranet replacement project required substantial business involvement from every department of the company. Securing these resources was relatively straightforward; however, ensuring that this large group of nondedicated project resources received appropriate support for the duration of the project required a tremendous amount of effort on the part of the project team to keep these individuals informed and engaged.
- **Governance:** The SharePoint governance strategy included the decentralization of select administrative responsibilities to the business to allow it to self-administer its SharePoint sites. This change required a tremendous amount of planning, communication, and education on a large scale.

DESIGN REVIEW

Homepage

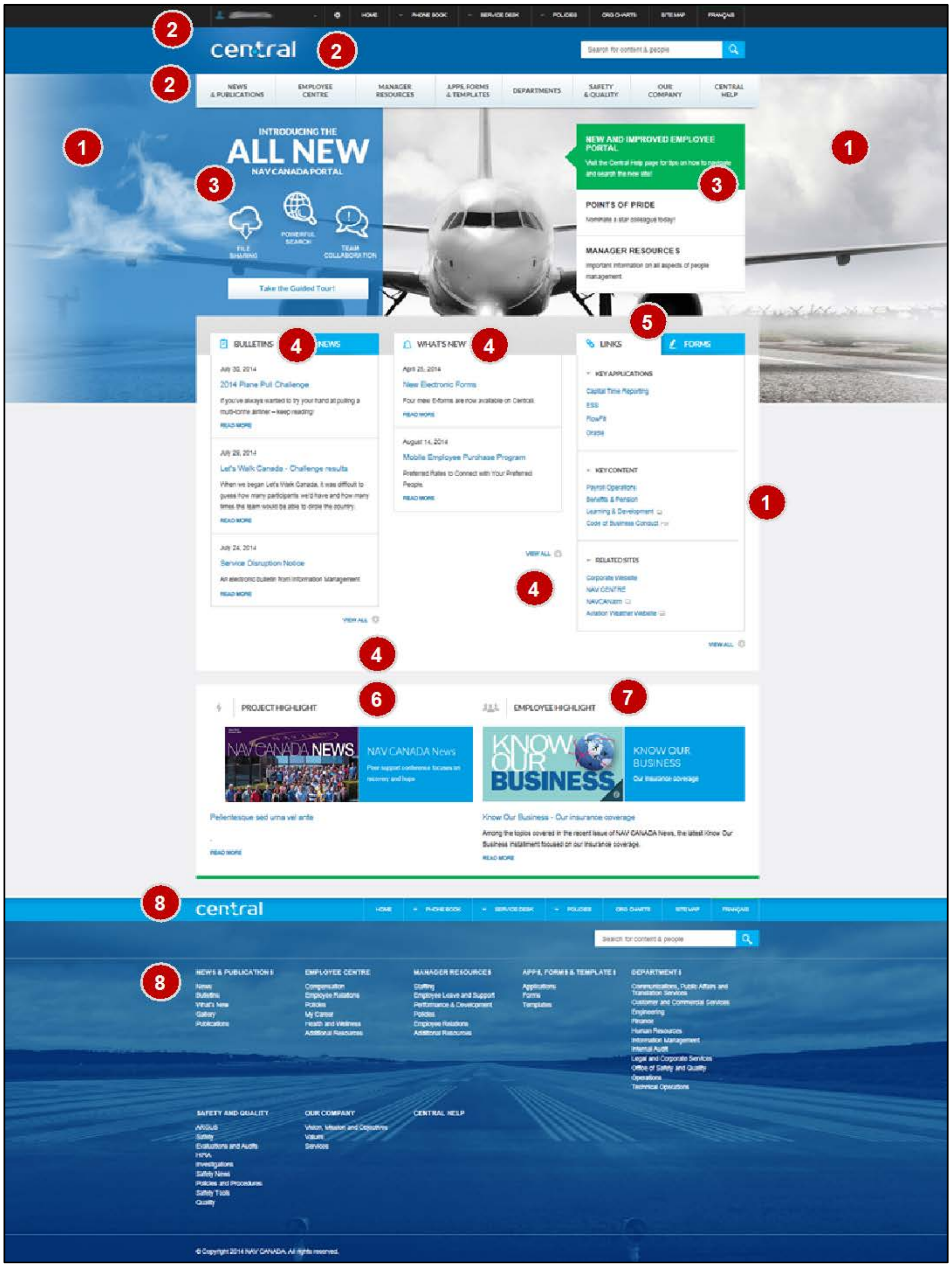


Image 98. NAV CANADA Intranet: Homepage.
98_NAVCANADA_02_Homepage_Live.png

Homepage Highlights

1. **Calm, On-Brand Design:** The simple-looking design of the Central homepage is a welcome greeting for some 4,650 employees at NAV CANADA. Soothing blues, greys, and whites are accompanied by a rotating background image (carousel) of three current and national campaigns and/or events.
2. **Navigation:** The three top, horizontal layers of navigation are easy to identify due to their location and different background colors: black for utility navigation, blue for search, and light grey for global navigation. There is good contrast between the color of the link text and the menu background color.
3. **Carousel:** Promotions for features of the new intranet design are given prime real estate on the homepage, in the carousel at the top. The promotion shown in the screenshot above was used on go-live, with text that appears on the left making employees aware of the new intranet and its key improvements, including: file sharing, powerful search, and team collaboration. The *Take the Guided Tour!* button opens a rich PDF slideshow taking the user through the intranet's key features. The head-on image of an airplane provides a strong visual related to the core business. The white boxes to the right can be selected or just watched as they rotate through. In addition to promotions, the carousel houses announcements and other special interest stories, such as *A Moment in Aviation History.*
4. **News and Announcements:** Various types of news, including bulletins and announcements about processes and new programs, are readily available on the homepage. Obvious blue links, an international date, and short descriptions make the content thorough and understandable. *View All* links lead to the full set of news-related items.
5. **Links and Forms:** Commonly used applications, pages, and other websites are consolidated on the front page for employees.
6. **Project Highlight:** One way to empower all employees is to make them aware of core projects and goals. This section is allocated to this goal. For example, the *Flight Planning* piece explains how this integral planning process works.
7. **Employee Highlight:** This section is dedicated to promoting initiatives or events that are directly related to employee life at NAV CANADA. For example, a piece about *Our insurance coverage* discusses the business insurance and how it works.

8. **Fat Footer and Repeated Utility Navigation:** The wide footer navigation at the bottom repeats the global navigation topics and lists the same links that appear in the megamenu. The utility navigation that appears at the very top of the site — *Home*, *Phone Book*, *Service Desk*, and so on — is also repeated just above the fat footer. These end-of-page navigation offerings give employees one more chance to find the information they are looking for when they have scrolled to the end of a page. Making their background a different color than the page content also makes them easy to identify and scan to, or ignore if not needed.

Tabs on Homepage

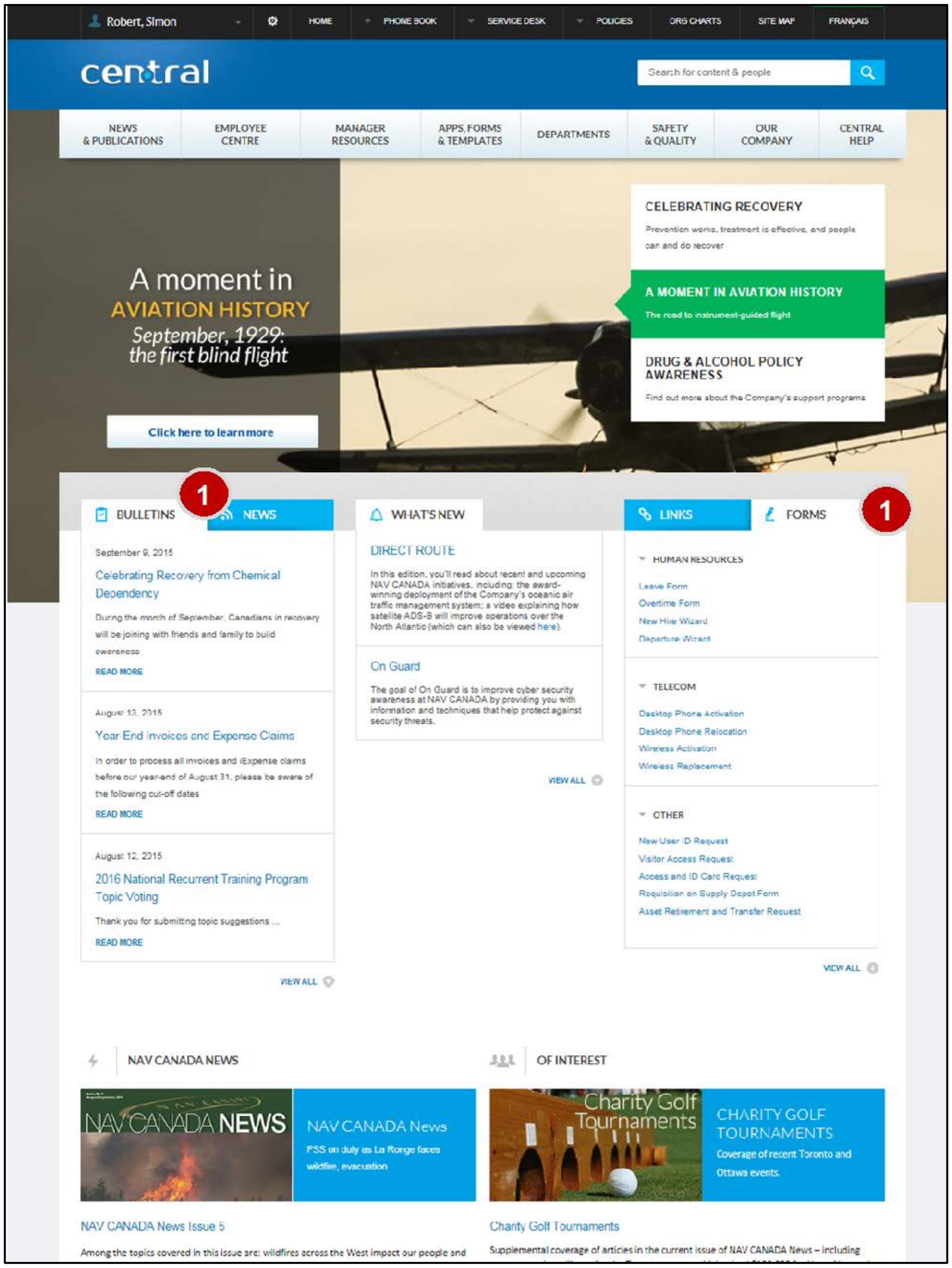


Image 99. NAV CANADA Intranet: Homepage with Forms Tab.
99_NAVCANADA_03_Homepage_Forms_Live.png

Tabs on Homepage Highlights

1. **Small Tabs:** These allow more information to be quickly accessed on the homepage without cluttering the page with too many links. It's important that these are visible and clickable, as they are on Central.

Navigation and Search

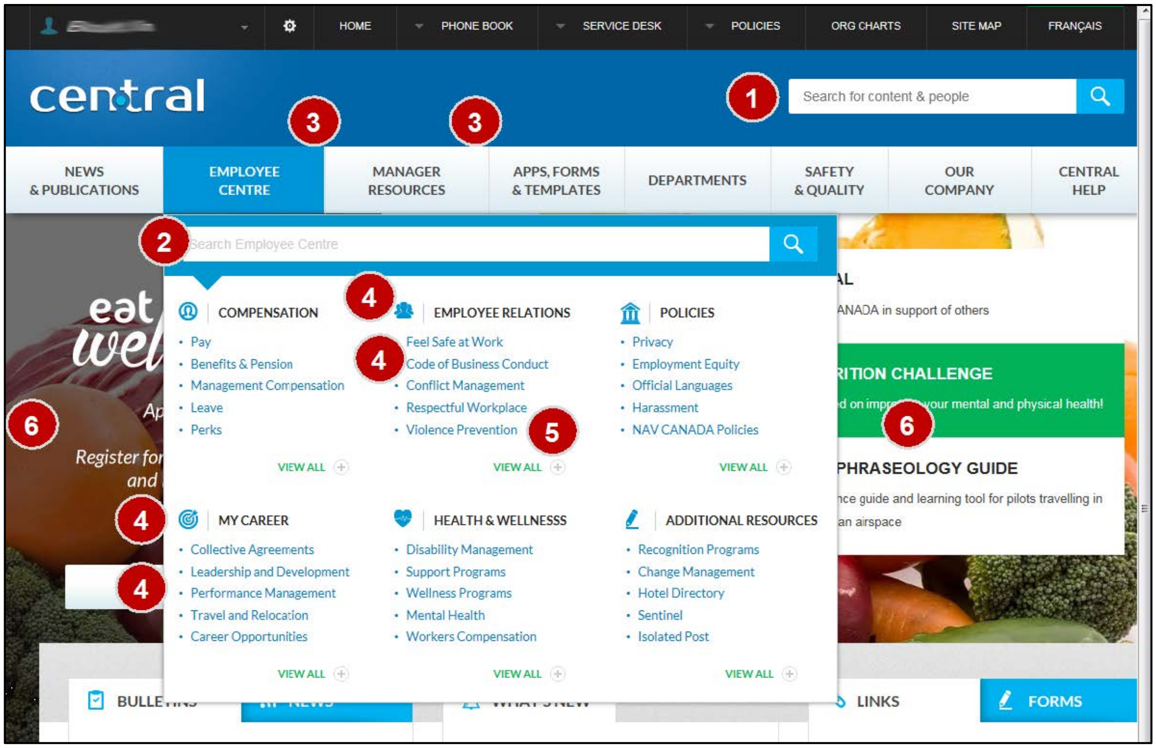


Image 100. NAV CANADA Intranet: Navigation and Search.
100_NAVCANADA_04_TopLevelNavigation_Live.png

Navigation and Search Highlights

1. **Search Field:** The site search field appears in an expected location: the upper right of all pages. The white field is offset by the darker blue background, and the search magnifying glass button on a lighter blue background stands out.
2. **Scoped Search:** When the global navigation megamenu opens, the first item that appears is a scoped search field. The grey prompt text reads *Search Employee Centre* or *Search*, depending on the menu item selected. This informs users who read the prompt that a search here would be querying only in that section of the intranet.
3. **Selected Menu:** The global menu item that is selected is differentiated with a blue background while the rest of the menu backgrounds remain white. This small effect is a wayfinding cue to help employees.
4. **Text:** The topic headings are black text, indented, all capital letters, and demarked with an icon; the links are blue text, outdented, title case, and bulleted.
5. **List:** Each menu item offers the five most commonly needed links; the rest of the links are available through the *VIEW ALL* link.

6. **Width:** The megamenu leaves plenty of vertical space to its right and left, making it clear to users that this is, indeed, a menu and not a separate web page.

Search Results

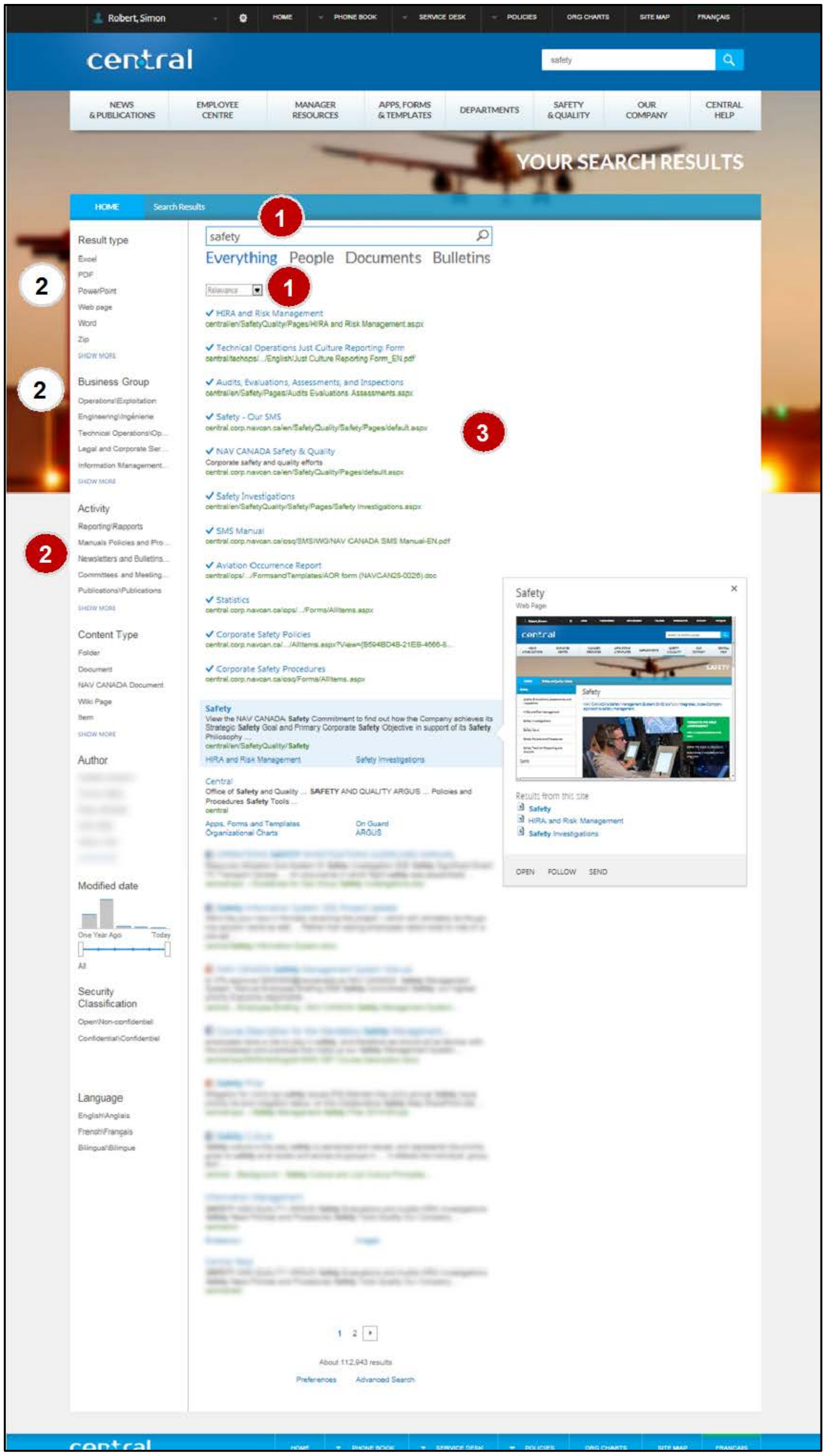


Image 101. NAV CANADA Intranet: Search Results.
101_NAVCANADA_05_SearchResults_Live.png

Search Results Highlights

1. **Categories:** Search results can be categorized by *Everything*, *People*, *Documents*, or *Bulletins*, making it easy for employees to find what they want. Designers chose the smartest default: *Everything.* Another smart default was sorting by *relevance*, rather than by date or another option.
2. **Filters:** Several filters appear on the left, sorted in categories. These facets help employees to quickly and easily sift through results to leave only what's desired. Using these facets does not cause the page to refresh; the search results are instantly reduced, with each selected facet allowing users to quickly refine a large amount of documents to a few highly relevant results.
3. **Keywords:** More than 300 keywords have been configured to return specific search results to help promote key content, such as applications, policies, and employee requests. For example, "benefits" takes employees to the *Benefits* page. In the example above, the "safety" keyword returns several promoted results that appear at the very top of the search results. Although this example illustrates a large number of promoted content, on average, only one or two promoted results appear.

Central Help Wiki for Collaboration Sites

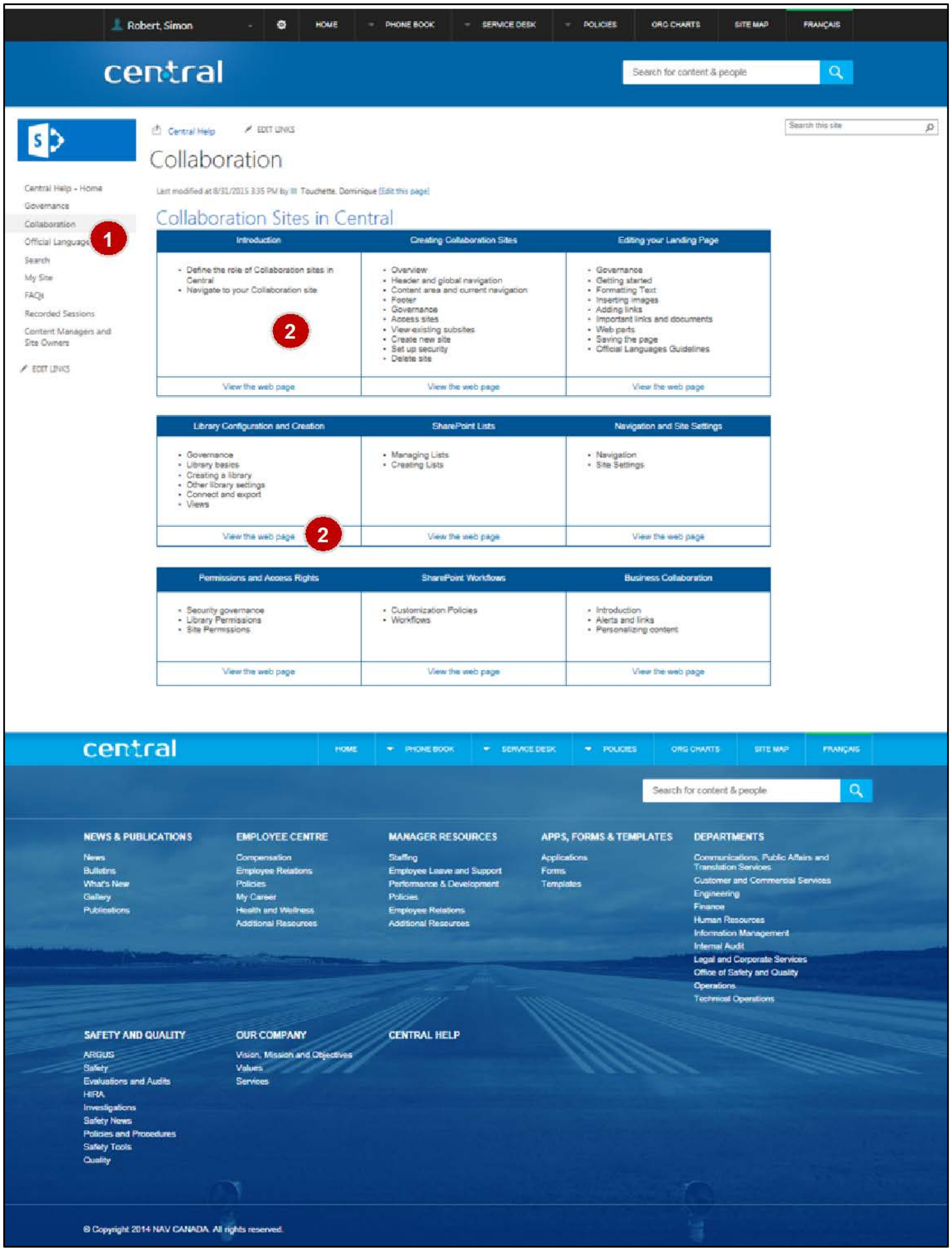


Image 102. NAV CANADA Intranet: *Central Help* Wiki Detail Page.
102_NAVCANADA_06_CentralHelpWiki_Live.png

Central Help Wiki for Collaboration Sites Highlights

Central offers users a large library of online help content. One wiki helps employees through working with collaboration sites. Collaboration sites are a wonderful way to enable teams and individuals to share information about a project without needing a personal developer at every step of the process. Without some guidance, however, the number of collaboration sites and the information in these sites can be hidden in a silo, outdated, or redundant, among other negative things. But not at NAV CANADA, as its help wiki helps to prevent this.

1. **Collaboration Sites Guidance:** Central offers help for anyone interested in creating a collaboration site. Rather than leaving employees to their own devices to figure out collaboration spaces, the Central team went the extra mile to help them create a useful collaboration space from the start.
2. **Steps and Links to More:** A simple table offers guidance for the more common areas people need help with, such as creating the site, editing the main page, and permissions. *View the Web Page* links below each set of steps lead to more guidance.

Central Help

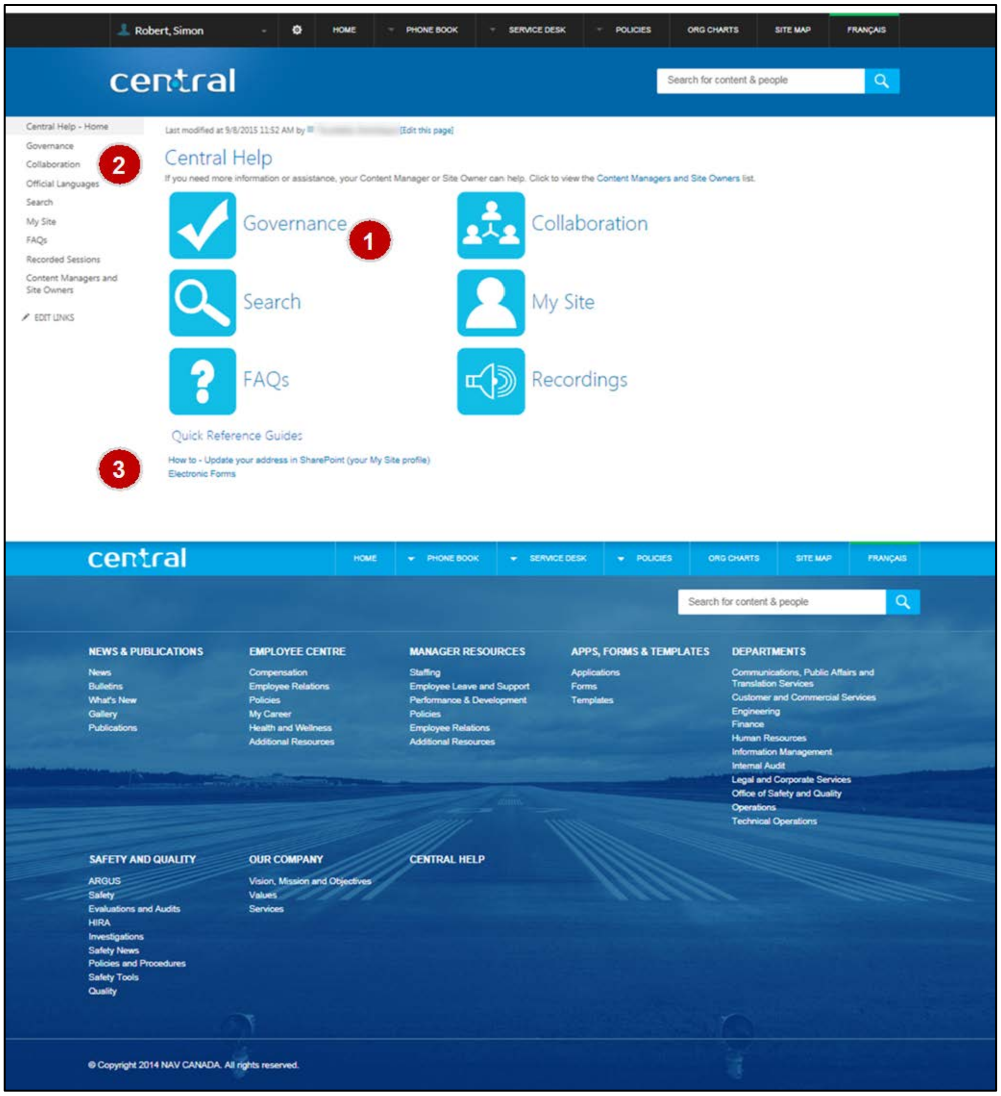


Image 103. NAV CANADA Intranet: *Central Help* Wiki.
103_NAVCANADA_07_CentralHelpWiki_Live.png

Central Help Highlights

1. **Comprehensive Help Resource:** The help main page offers assistance for not only creating collaboration sites, but also for other topics such as *Search* and *Governance*.
2. **Menu:** More topics, such as *Official Languages*, appear in the left-side menu.
3. **Quick Reference:** The *Quick Reference Guides* offer additional help for infrequent tasks, such as updating addresses.

People Search, Smartphone UI

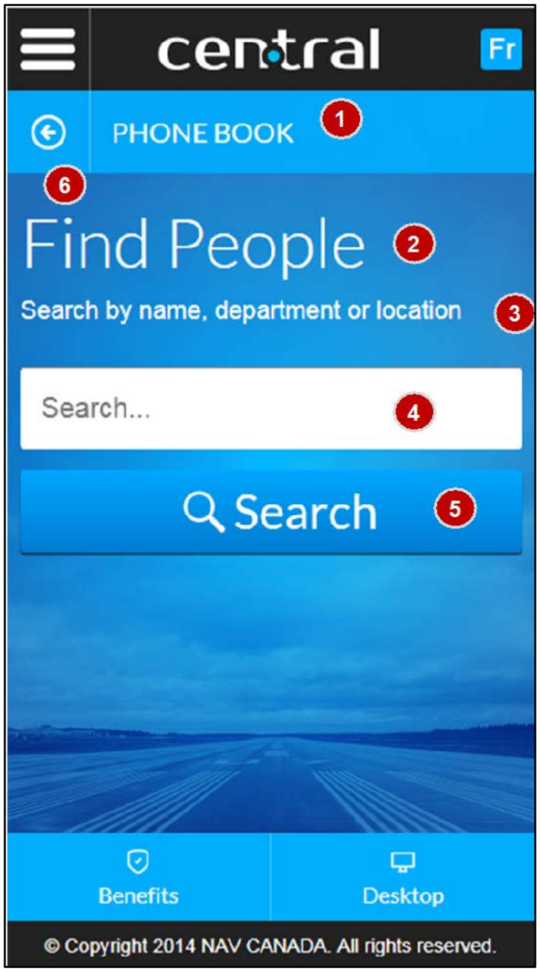


Image 104. NAV CANADA Intranet: People Search in Mobile App.
104_NAVCANADA_08_MobilePeopleSearch1_Live.png

People Search, Smartphone UI Highlights

Central offers a mobile experience for all tasks on a tablet and for some tasks on a smartphone. One such task that works superbly on a phone is searching for people. Accessing the *Phone Book* on Central via a phone opens a very light, simple screen.

1. **Signpost:** *Phone Book* is clearly stated at the top of the page, so people know where they are.
2. **Command:** *Find People* clearly communicates to employees what they can do here.
3. **Prompt:** Options to search by name, department, or location describe specifically which types of things to search for.
4. **Field:** The large text field makes it easy to tap and type terms.

5. **Button:** A large button makes it effortless to tap to invoke the query. The *Search* label and magnifying glass icon make the button highly recognizable.
6. **Back:** An arrow in the upper left takes the employee back a screen.

People Search Results, Smartphone UI

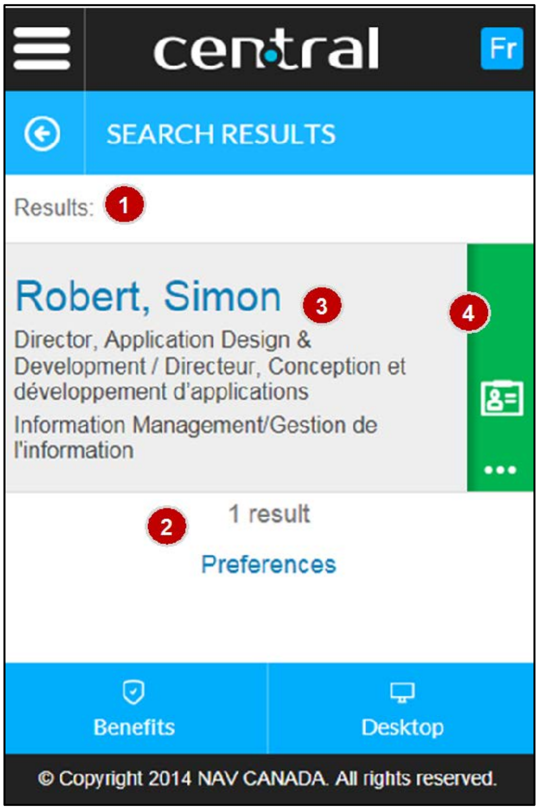


Image 105. NAV CANADA Intranet: People Search Results on Mobile App. *105_NAVCANADA_09_MobilePeopleSearch2_Live.png*

People Search Results, Smartphone UI Highlights

1. **Label:** *Results* displays at the top of the page.
2. **Status:** The number of results appears at the bottom of the page.
3. **Name:** The person's name appears in large, legible text, as does his job title below.
4. **Contact and More Information:** Swiping or tapping leads to more information about the person, including a photo.

Employee Profile, Smartphone UI

Image 106. NAV CANADA Intranet: Mobile UI Employee Profile.
106_NAVCANADA_10_MobilePeopleSearch3_Live.png

Employee Profile, Smartphone UI Highlights

1. **Photo:** A large, clear photo helps people recognize each other.
2. **Name and Title:** The person's name and title are easy to find and read.
3. **Telephone Numbers:** The landline and mobile numbers are differentiated with icons.
4. **Email:** Email can be read, copied, or clicked to address a message.

Employee Profile, Desktop UI

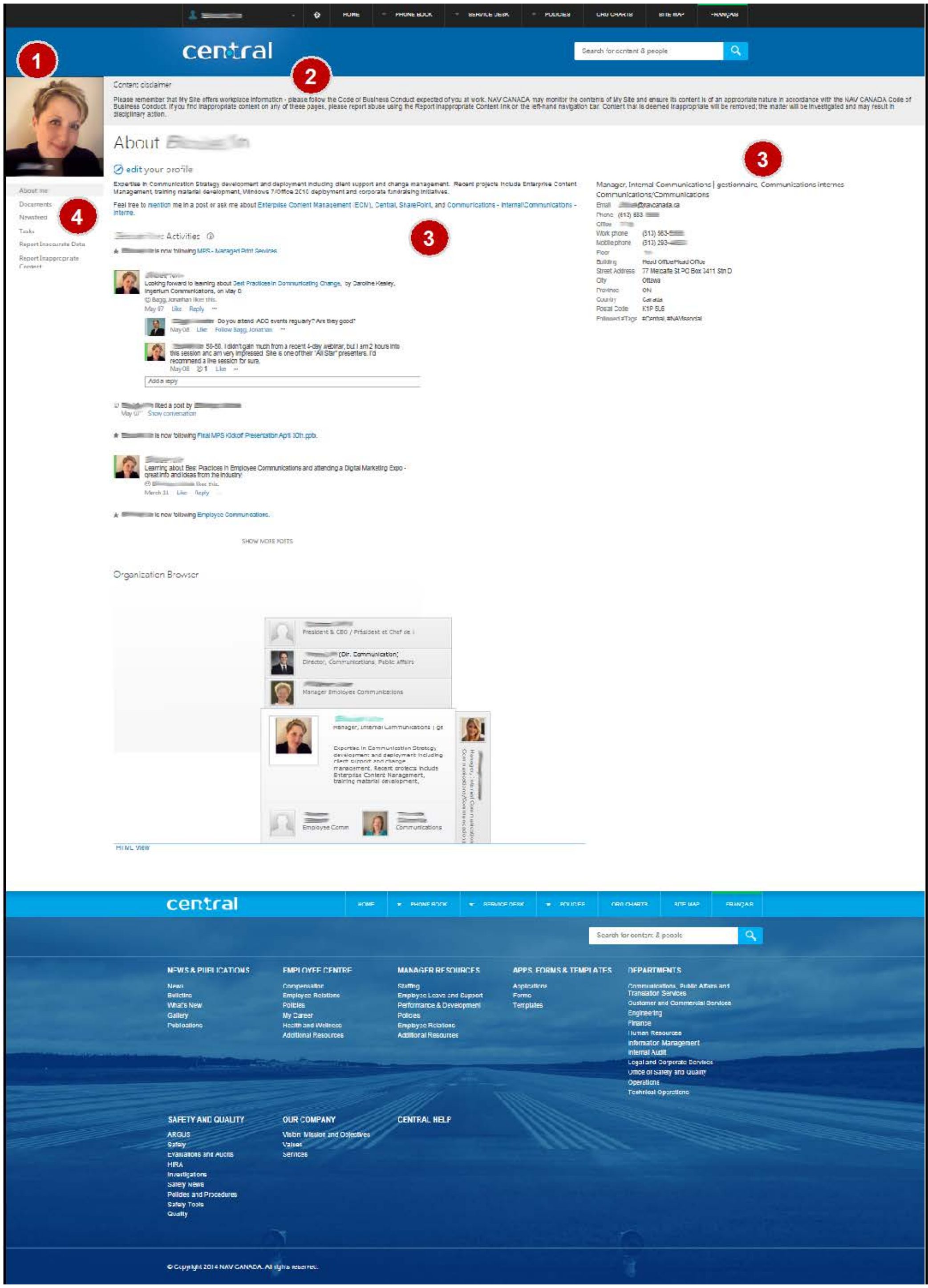


Image 107. NAV CANADA Intranet: Employee Profile Page (Desktop View). *107_NAVCANADA_11_EmployeeProfilePage_Live.png*

Employee Profile, Desktop UI Highlights

A simple page offers rounded information about the individual.

1. **Photo:** The picture helps employees get to know one another.
2. **Comment:** A philosophy, mantra, or interesting thought starts the profile page. This gives employees a sense of each other and allows individuals to express themselves.
3. **Social:** Shares and who the person is following and followed by promote social activity.
4. **Tasks, Report, Documents:** Other items people are associated with can also be accessed. This is another way to help employees find expertise around NAV CANADA. Air traffic controllers, shift supervisors, human resource specialists, real estate managers, and people doing many other jobs can find a wealth of knowledge by locating people and collaborating.

Department Page

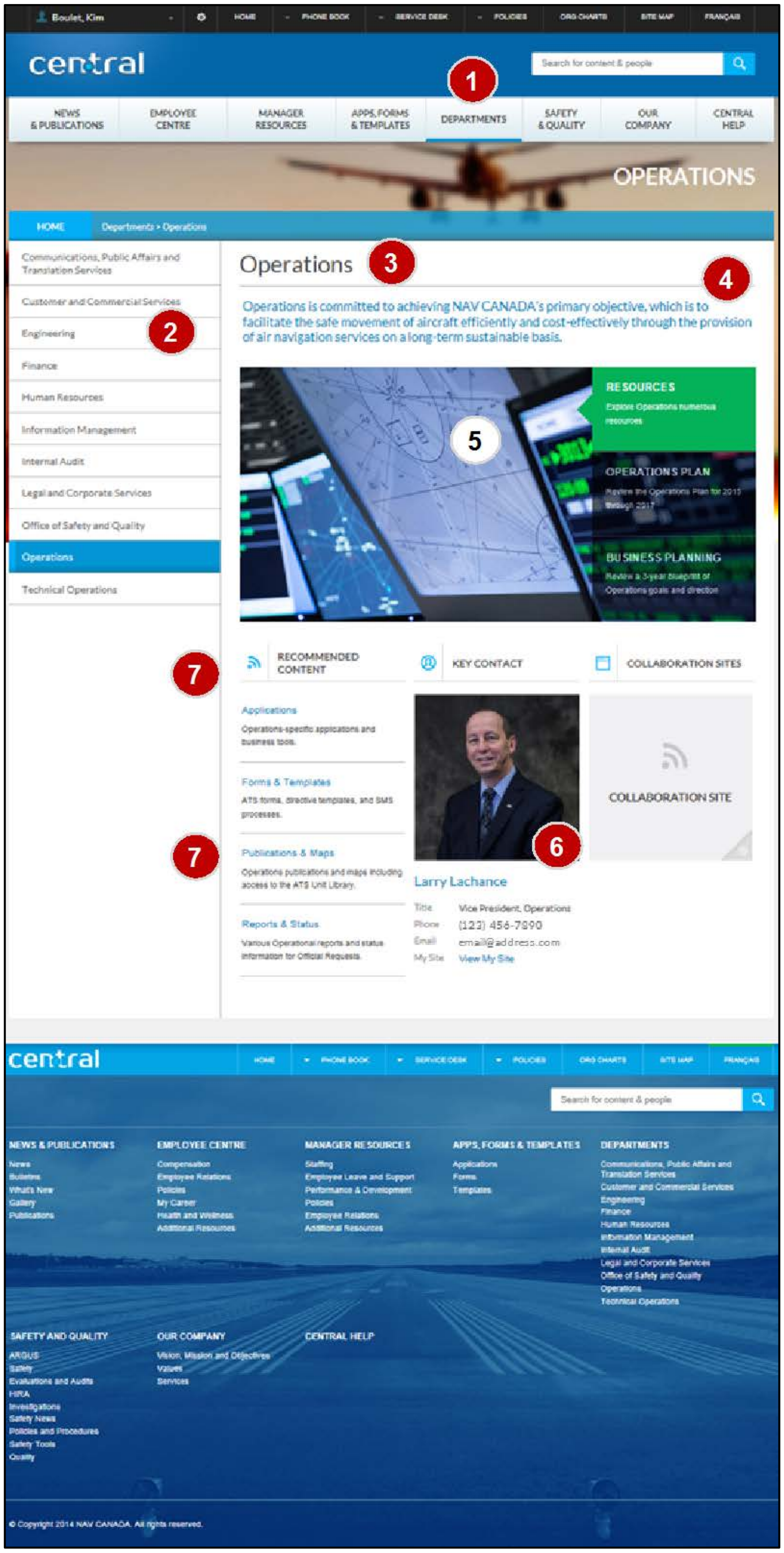


Image 108. NAV CANADA Intranet: Department Page. *108_NAVCANADA_12_DepartmentPage_Liv ev2.png*

Department Page Highlights

Each department is described on Central, making the organization transparent and the departments understandable and approachable. The resources help employees understand what each group does and why it's important, and can provide ideas for working together.

1. **Global Navigation:** The *Departments* link is visible and understandable.
2. **Left Navigation:** Department names are listed and easy to scan in the left-side navigation.
3. **Name:** The page title names the department.
4. **Statement:** Each department states how it works to achieve NAV CANADA goals. This helps people to understand the departments' purpose, and unifies departments under one large team striving for the same things.
5. **Carousel:** Some of the department's offerings and plans are promoted here.
6. **Leader:** The vice president of the group is named, with a photo and contact information.
7. **Resources:** Applications, forms, collaboration sites, and other resources are linked here and sometimes briefly described.

Project Repository (Collaboration Site Example)

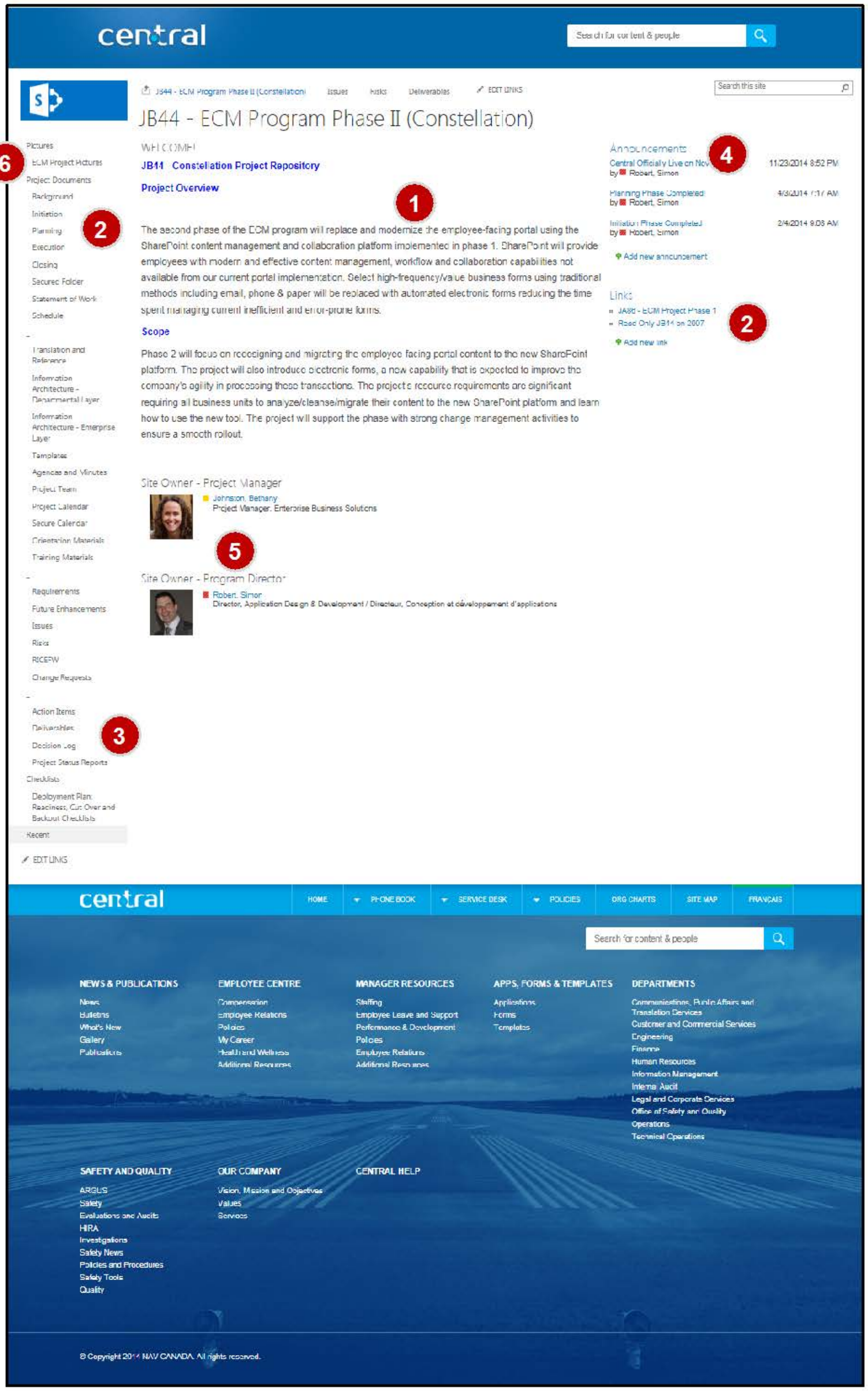


Image 109. NAV CANADA Intranet: Project Repository Page.
109_NAVCANADA_13_ProjectRepository_Live.png

Project Repository Highlights

Tracking projects and all of the activities and accompanying material is a snap at NAV CANADA, using project repositories on Central. Everything is consolidated and easy to find in one place.

1. **Summary:** The project is described in clear terms. This is especially helpful to newcomers on the project, and people learning about the project.
2. **Related Materials:** Everything from deliverables, issues, and risks to templates and photos are available via the left-side menu. Links are available on the right.
3. **Plans:** Requirements, action items, tasks, and more are also tracked.
4. **Status:** As phases are completed, the status is posted in the right rail.
5. **Site Contacts:** NAV CANADA's governance policies require that each collaboration site clearly indicates the site owners in case someone requires support. These contacts are posted under the scope of the project.
6. **Role-Based:** This page is also personalized, allowing only project members to see it, and only managers on the project to see certain content.

Hotel Directory

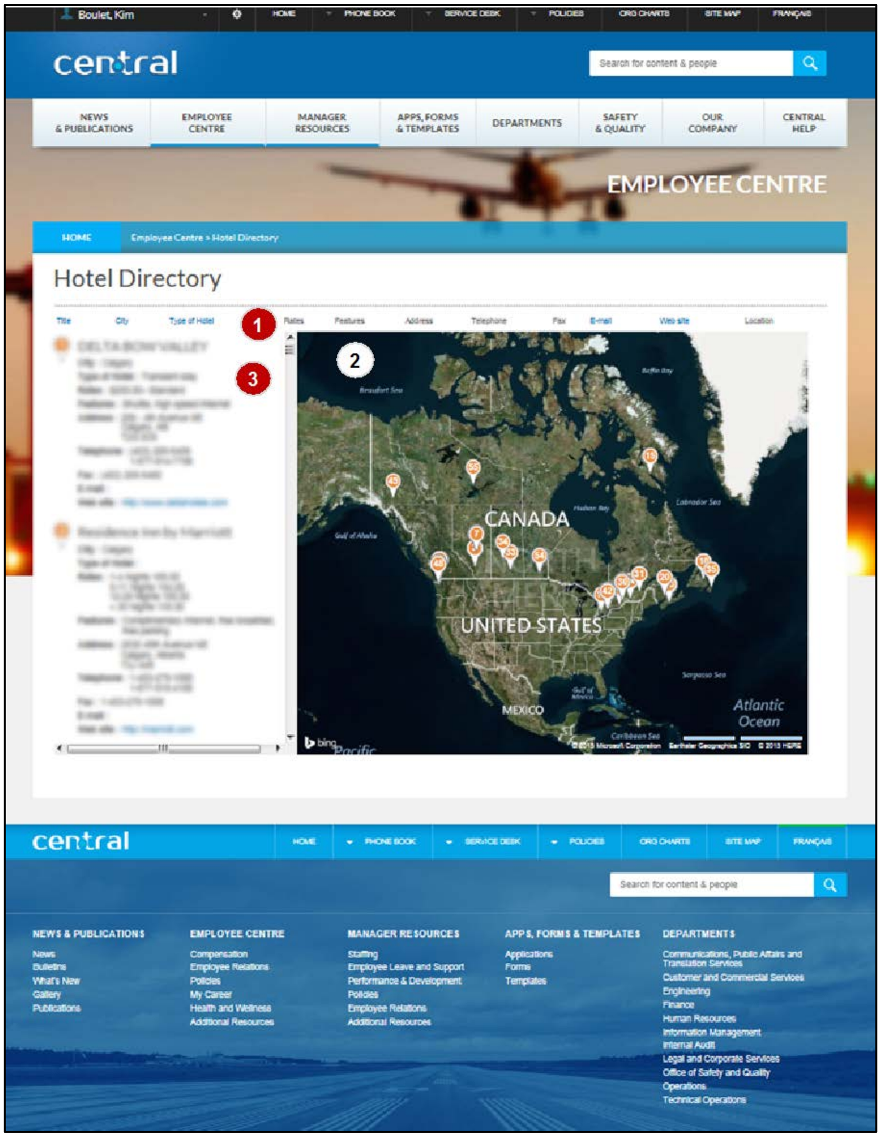


Image 110. NAV CANADA Intranet: Hotel Directory.
110_NAVCANADA_14_InterestingPage_Live.png

Hotel Directory Highlights

Employees can easily search for approved hotels for NAV CANADA employees when traveling in Canada. This is an expected, modern interface that employees can quickly acclimate with.

1. **Filters:** Selecting filters refines the results displaying on the map.
2. **Map:** Users can zoom and pan across the map.
3. **List:** The results are listed in text on the left.

DESIGN PROCESS AND USABILITY WORK

Approach

The design process was comprehensive and fact-based. It started with a deep analysis of the current state so that the team could understand the pain points and the functionality required to address those points.

"We surveyed employees asking them how they used the legacy intranet, what they liked, what they didn't like, and what their expectations were for the new intranet," says Simon. "What we found was that employees used the employee portal on a very frequent basis, but were looking for a much better search experience and a more modern look-and-feel."

Basic portal features such as search, navigation, and content freshness were the focus of the users' wish list as opposed to bells and whistles such as classified ads. In other words, NAV CANADA's employees were asking for a modern portal that would be really good at the basics, as opposed to a flashy intranet with little substance.

The survey data was crucial to give the design process direction and credibility. Team members were able to prioritize the new intranet's requirements and help contain the scope of the project; they did this using fact-based arguments and data to defend the scope rather than being forced to engage in circular emotional discussions when users were demanding changes after the scope was set.

The team was also able to use web analytics to analyze usage patterns on the legacy portal to better understand which pages were most and least popular.

Prior to the intranet project starting (and even before the team selected its ECM platform), team members conducted a lot of research on user experience design best practices for intranets, including Nielsen Norman's Intranet Design Annual reports. "The research revealed several key findings that influenced our approach," says Simon. Here are a few of those key findings:

- **Importance of a solid user experience:** No matter how many features your ECM platform has, if it's not easy to use, users will not use it and your benefits will quickly erode.
- **UX methodology:** Designing a new website or intranet is a unique process that requires distinct steps to do it well. Ensure that you use a proven user experience design process tailored for employee-facing intranets.
- **Understand your audience:** Before producing a design, take the time to understand the types of users that will be accessing the intranet and what their needs are.
- **Hire the best user experience firm:** Unless you have deep intranet user experience expertise in-house, hire a firm with a proven methodology and track record *in intranet design* to do the work.

User Experience Design

Although many things had to be addressed during the redesign, the user experience took top billing. The user experience design approach was broken down into four steps:

1. **Technology selection:** The first step was to set the user experience as the highest weighted criteria when selecting the ECM platform. Contrary to traditional product evaluation criteria, which emphasize the importance of features and functions or architectural cohesiveness over usability, the team felt strongly that user experience needed to be the most important evaluation criteria to achieve its goals. With that in mind, the team invited representatives from each department to attend product demonstrations and evaluate the solution's user experience, features, and functions to ensure that the selected solution would be easy to use.
2. **Information architecture:** Once the technology platform was selected, the team designed the new IA by conducting workshops and card sorting sessions with the business, analyzing web analytics data from the previous intranet, and surveying users to determine what content and features were most/least important to them.
3. **Wireframes:** With an IA defined, the team proceeded to engage the user experience firm, Atomic Motion, to begin the design process. Navigation plans and wireframes were developed to provide the NAV CANADA team with a visual orientation of the new look-and-feel without spending too much time debating colors, fonts, and so on. The focus of this process was the structure and position of the various intranet elements that needed to support the IA, rather than the look and feel.
4. **Design concepts:** Once the wireframes were approved, the team focused on applying visual styling treatments to the wireframes including color, imagery, and iconography. Atomic Motion produced two different design approaches to help spark discussion and give the NAV CANADA team members something to compare against.

JOHN SMITH
HOME | PHONE BOOK | SERVICE DESK | POLICIES | ORG CHART | SITEMAP | FRANÇAIS
NAV CANADA
PORTAL
Search for content and people
NEWS & PUBLICATIONS
EMPLOYEE CENTRE
MANAGER CENTRE
APPS & RESOURCES
DEPARTMENTS
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NEWS & PUBLICATIONS
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Events & Campaigns
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Compensation
Payroll
Collective Agreements
New Employees
Job Opportunities
Forms
Contacts
MANAGER CENTRE
News
Manage Employees
Change Employee Status
Track Time & Expenses
Recruitment
Workplace Injury or Illness
Forms
APPS & RESOURCES
Application Directory
Forms
Templates
DEPARTMENTS
Department 1
Department 2
Department 3
Department 4
Department 5
etc.
SAFETY
TBD
OUR COMPANY
Mission & Objectives
Principles & Values
Corporate Awards
History
PORTAL HELP
FAQs
Tutorials
Governance
Get Help
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Home | Phone Book | Helpdesk | Policies | Org Chart | Sitemap | Français

Image 111. NAV CANADA Intranet: Sample Wireframe. This is a wireframe of the homepage developed during the design process. This wireframe was used to conceptualize the design of the new intranet without investing too much effort in styling and branding. A wireframe was created for each page layout of the new intranet, which was then submitted for review by stakeholders. These were highly effective tools for refining the requirements and design elements prior to the styling and branding process. *111_NAVCANADA_15_WireframeHomepage.png*

Information Architecture

The first step in the design process was to create the new intranet's IA. Central was designed as four applications running seamlessly on a single technology platform, presented under a consistent banner and user experience that included the following:

- **An enterprise layer:** Home to Central's main landing page and designed as a modern website, the enterprise layer contains content that is accessible by all employees, such as company news, campaigns, benefits, policies, links to apps, forms, and templates.
- **Collaboration sites:** All business units now have the ability to create and manage their own collaboration sites, provided they are justified and comply with governance policies, secured to any number of internal users to collaborate efficiently on information that would otherwise be managed in inefficient network file shares or spreadsheets.
- ***My Sites*****:** This feature provides employee business contact information, social newsfeeds, and a dynamic organizational chart illustrating each person's position in the corporate structure.
- **Mobile access:** Central also provides a mobile experience, accessible from all company-issued smartphones and personal devices that are equipped with NAV CANADA's enterprise mobility management capability. This allows users to access Central anytime, anywhere, and on any device.

The company's legacy intranet content was structured primarily by business group, which meant that users needed to know which department was responsible for a piece of content to find it, as the search engine was very difficult to use and unable to mitigate this issue.

Research conducted prior to the project indicated that task-based navigation was much more intuitive and effective compared to traditional organization-based navigation. So, the team endeavored to produce an IA and navigation plan that was task-oriented.

Another key IA problem the team was trying to solve was to declutter the intranet's homepage. The legacy intranet homepage was cluttered with too many banners from content owners competing for real estate because there was no space for them to advertise their initiatives elsewhere.

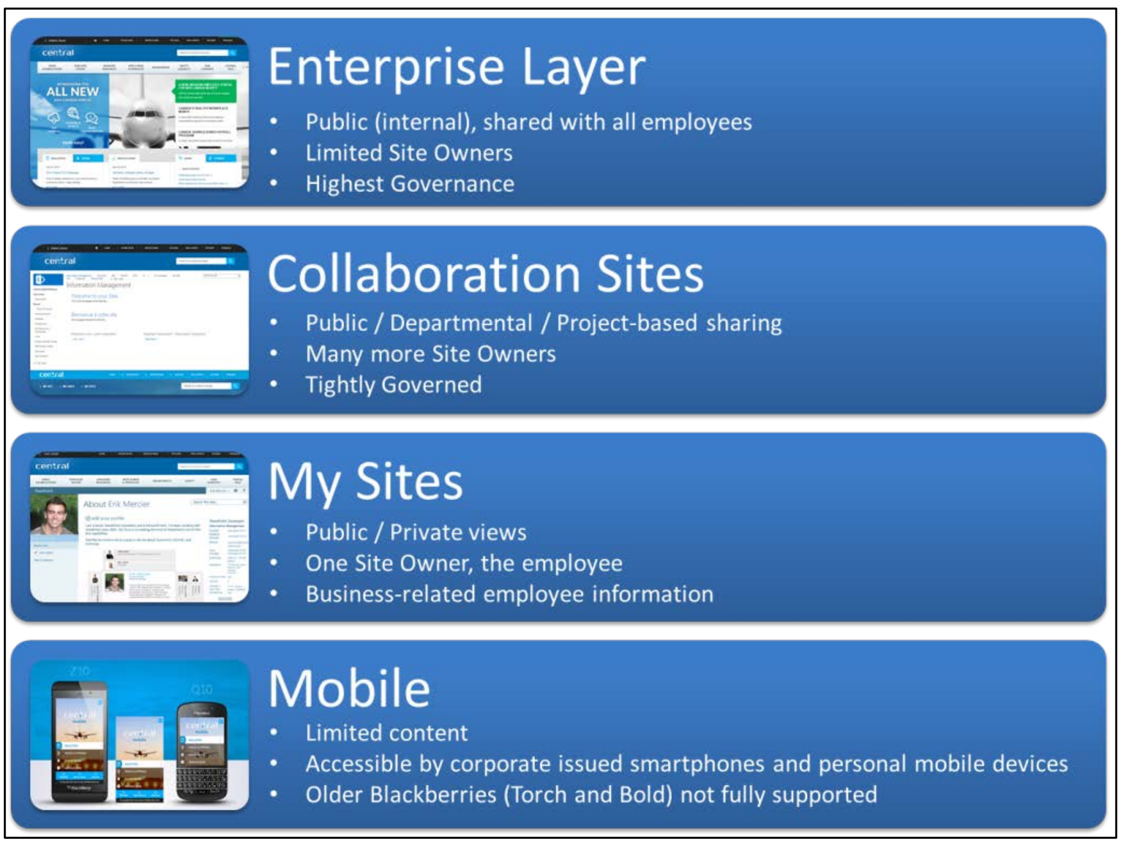
The new IA allows users to access content using several different paths, such as through the top navigation, megamenus, search, and so on, which is much more intuitive and effective to use compared to the previous approach.

The team also created a design that limits the homepage banners to national campaigns only. Department-specific initiatives can be advertised on each business group's department page. This eliminates the issue of a cluttered homepage while allowing business groups to promote their initiatives.

Simon offers some advice for other teams struggling to develop a new IA approach: "The best advice we can provide is to take the time to understand what content the intranet will provide and how users expect to navigate that content."

"Create task-oriented buckets of content," he says, "using your company's vernacular, to form your main navigation elements and surface the most popular content using megamenus to reduce clicks and streamline navigation. Continue to analyze user behavior post implementation to determine if the original design needs to be enhanced to address gaps or new requirements."

The most important thing he and his team found effective with this project is the one teams often overlook: get as much feedback as possible from the user community to validate designs upfront, using mock-ups to avoid expensive rework during development.



High-level view of the new IA for the new intranet.

Hiring the Right Partners

Another thing the NAV CANADA team did right was hiring the right experts to do the parts of the project they couldn't do in-house. Knowing that user experience was a top priority for the new intranet meant that outside experts hired to assist in the effort had to be of the same mindset.

"We identified early on that user experience was a top priority for the new intranet and that it needed to be easy to use or else employees wouldn't adopt it," says Simon. "We used this criteria when selecting our partners. We hired StoneShare as our lead SharePoint systems integrator and a local web design firm, Atomic Motion, to facilitate the intranet user experience process."

It was critical that the systems integrator (StoneShare) had experience branding SharePoint because doing so is much more involved than a standard SharePoint installation. The task requires the integration of visual assets into SharePoint's presentation layer, which requires specialized skills.

"StoneShare provided this expertise and, combined with Atomic Motion's proven design methodology, both firms' outstanding consultants guided us through the research, wireframing, visual composition, and SharePoint branding process," says Simon.

Other components in the project played out as follows, with a healthy give and take between the agencies and the internal project team:

- **Mobile design:** Once the main intranet design was complete, Atomic Motion, working closely with StoneShare to understand SharePoint's mobile capabilities and limitations, produced a design for the mobile app that was optimized for the smartphone form factor; adhered to mobile app best practices; and used the same colors, styles, and theme as the main intranet.
- **SharePoint integration:** Atomic Motion delivered all visual assets to StoneShare so they could implement the design in SharePoint. These assets included all the images, styles, cascading style sheets (CSS), and JavaScript needed to brand SharePoint accordingly. Having the design firm provide these assets saved a tremendous amount of time by avoiding having the SharePoint developers spend time slicing up images and building CSS/JavaScript content from scratch.
- **Third-party add-ons:** StoneShare took the lead and used these assets to apply the Central brand and integrate key third-party add-ons such as the megamenu and rotating banner to SharePoint's user interface. "StoneShare, with their deep experience in branding SharePoint, did a fantastic job integrating the user experience assets and components into SharePoint's complex presentation layer, to the point where the end result was tightly aligned to the visual concepts," says Simon.

This kind of smooth interplay between the two agencies and an easy back and forth between the agencies and the internal team was a critical success factor that helped lead to the useful and usable intranet NAV CANADA employees use today.

"Atomic Motion and StoneShare delivered a modern and impactful design which met all of our requirements and was orders of magnitude cleaner and easier to use compared to our legacy intranet," says Simon.

OUTSIDE AGENCIES	
Agency	**Project Role**
StoneShare IT consulting firm that provides solutions and services focused exclusively on Microsoft's SharePoint platform	• Assisted in the planning work of the company's ECM Program, including requirements gathering, business process reviews, IA, enterprise taxonomy, technology validation, implementation roadmap, and risk assessment to support the program's business case. • As the prime systems integrator and part of an integrated team with NAV CANADA, led the implementation of the SharePoint solution to replace the legacy intranet, including solution configuration, testing, and deployment (new intranet, mobile web app, electronic forms): o Facilitated content migration to new intranet o Offered solution support during stabilization period o Provided training materials and training sessions o Provided knowledge transfer back to NAV CANADA
Atomic Motion Design and web development company specializing in design, digital marketing, and app/software development	• Led the user experience design process to deliver the new intranet and mobile web app designs including: o User profiles o Wireframes o Design concepts o Design assets • Developed all presentation-layer application code and markup required to convert approved desktop/tablet and mobile designs into intranet page layouts and master pages capable of seamlessly integrating with SharePoint 2013.

Adoption and Buy-In

The NAV CANADA team didn't have to spend a lot of energy to convince its core group of users to adopt the new intranet because the legacy portal was a significant source of pain for those users. Most NAV CANADA intranet users were, in fact, anxiously awaiting the site launch so they could take advantage of the new features.

As with most companies, NAV CANADA also had pockets of users who did not use the legacy portal because they preferred to use file or network shares to manage their content. The intranet team nudged those users along, touting the advantages of the content management features and hoping these users would also come around to using the new intranet.

To help with adoption, the team launched a national campaign that featured articles in the company newsletter, posters, digital ads, and national email bulletins to inform users of the new intranet and its key features. The campaign was highly successful. The team also created a digital guided tour that was accessible in an interactive PDF format from the homepage. It walked users through high-level features, IA, and navigation tips to help users transition to a site that looked and functioned quite differently than the legacy intranet.

GOVERNANCE

The project was sponsored equally by each major function within the company. During the project, an Enterprise Content Governance Board (ECGB) was established to govern and oversee the strategic direction and overall health of the system, post-implementation. The ECGB is chaired by the Information Management department, where the core intranet team members are located.

This distributed model was ideal to support the project toward a successful outcome.

"The distributed ownership model was a critical success factor for the new intranet," says Simon. "Having all business groups sharing in the ownership and success of the intranet ensured that the project had the necessary resources and support to complete the project and maximize user adoption."

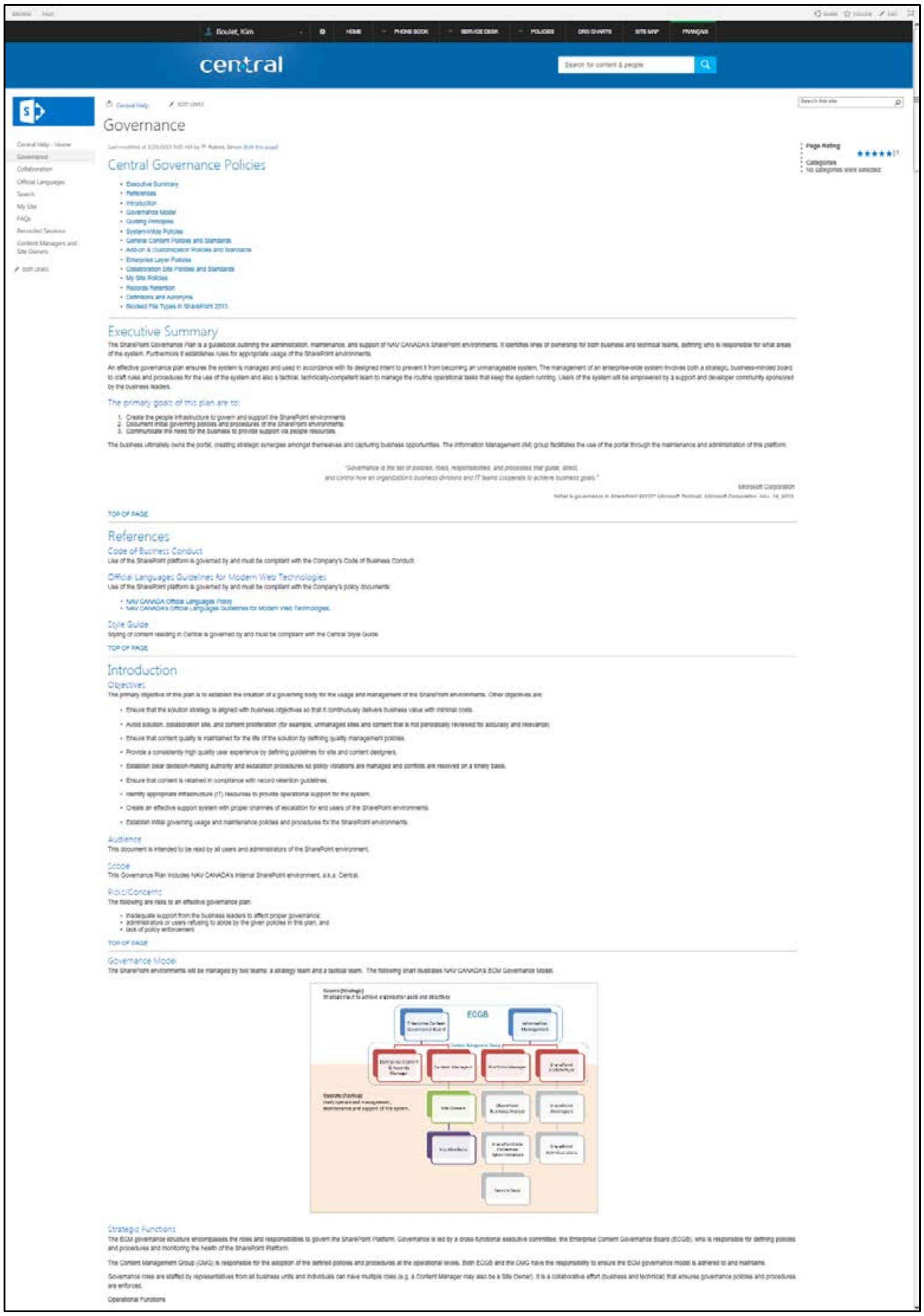


Image 112. NAV CANADA Intranet: Governance Policies Page. The governance policies page is a reference for all employees and contains information on the new intranet's governance model, roles, and responsibilities, as well as the policies and procedures that are in place to maintain the health and integrity of the new intranet. *112_NAVCANADA_16_Governance_Live.png*

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Enterprise Content Governance Board Representatives	• Serves as a governance body with ultimate responsibility for meeting the goals of the solution • Ensures that the strategic direction of the ECM platform remains aligned with NAV CANADA objectives • Defines governance policies and standards
Enterprise Content Records Manager	• Maintains the enterprise metadata dictionary over the life of the solution • Defines and manages the enterprise taxonomy, including content types, managed metadata (term store), and metadata in both external and internal environments
Content Management Group	• Supports the successful deployment of the solution in the organization by sharing best practices and lessons learned in a Community of Practice • Members serve as SharePoint advocates and change agents
Content Managers	• Assigned for each business group • Responsible for overall ownership of the business group's content • Implement and enforce content management policies as defined by the ECGB • Manage site collections and approve site and subsite creation • Guide and mentor site owners to adhere to governance policies • Support site owners in providing second-level support to their business community

Site Owners	• Assigned for each site • Responsible for ownership of content for the site • Ensure that site members use the site appropriately and comply with governance policies and standards • Ensure that the sites are active and delivering value to the business • Provide first-level support to their business community • Validate the accuracy and relevance of site content
IM Portfolio Manager	• Manages the overall direction, design, and functionality integrity of the solution from a business perspective • Works with the SharePoint architecture and ECRM to recommend changes and manage updates to IA and governance
IM SharePoint Architect	• Ensures integrity and alignment with the enterprise architecture • Architect and design SharePoint solutions and farm topology
IM SharePoint Business Analyst	• Captures new requirements for the ECM platform • Recognizes any constraints that the governance policies impose (what features are available, how content can be changed, and so on) • Builds use cases and designs that do not conflict with established governance • Gathers technical metrics and key performance indicators for ECGB

IM SharePoint Developer	• Modifies SharePoint branding and look and feel • Implements changes to images, CSS, master pages, and layouts • Performs search engine optimization (SEO), including best bets (query rules) • Modifies SharePoint templates • Creates and deploys web parts • Creates and tests deployment scripts as required • Participates in design tasks as needed • Participates in development and testing
IM SharePoint Administrator	• Develops best practices and operation guidelines for infrastructure setup • Implements solution upgrades, service packs and security updates, and maintenance work

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• **Desktop:** http://central • **Mobile:** http://central/mobile
Default Status	• The intranet is set as each user's homepage by default, but it can be changed.
Remote Access	• Remote users can access the site using VPN, and many do.
Shared Workstations or Kiosks	• Air traffic controllers are not assigned a corporate computer so they access Central via kiosks located in a communal area in their respective facilities or via the Central Mobile app on their personal mobile devices.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
2003	• First company intranet
December 2013	• Intranet modernization project started
January 2014	**Initiation phase completed:** • Onboarding team members • Project repository setup • Project team orientation • SharePoint 101 education sessions
March 2014	**Planning phase completed:** • Requirements validation • Governance strategy and plan • Content migration strategy and plan • Change management strategy and plan • Enterprise taxonomy model • Information architecture • User experience design • Technical architecture • Project plan
November 2014	**Launch of new design:** • SharePoint 2013 infrastructure • Enterprise layer • Collaboration sites • *My Sites* • Electronic forms • End-user training
November 2014–February 2015	**Stabilization:** • High-severity defects • Critical enhancements

	• Reinforce end-user training • Knowledge transfer to operational staff
January 2015	• Intranet achieves one million hits
February 2015	• Project closure
Overall redesign time frame: 14 months	

CONTENT AND CONTENT CONTRIBUTORS

Prioritizing Governance

When NAV CANADA embarked on its ECM program to modernize the company's CMSs, governance was quickly identified as a critical goal and key success factor to the program. Many of the issues experienced with the company's legacy systems such as obsolescence, stale content, and inconsistent practices were largely due to a lack of adequate governance policies and accountability for individuals to oversee the adherence to those policies.

Therefore, the team spent a significant amount of time researching SharePoint governance best practices to create its current governance framework. When creating this framework, a key objective was to decentralize low-risk administrative capabilities to the business; this allows the business to be more agile in managing its content and reduced the reliance on and workload for the IT department to manage each business unit's content.

The governance model roles are divided into two key functions: strategic and operational. Representatives from all business units staff governance roles, and individuals can have multiple roles (for example, a content manager may also be a site owner). It is a collaborative effort (business and technical) that ensures governance policies and procedures are enforced.

Strategic Functions

Governance is led by a cross-functional executive committee, the ECGB, which is responsible for defining the overall strategy, policies, and procedures, and for monitoring the health of the SharePoint platform. The ECGB meets on a quarterly basis to review a series of health metrics (provided by the IT department) to ensure that the system is being used appropriately, is adhering to established governance policies, and is performing at an acceptable level.

Reporting to the ECGB is a cross-functional group of content managers called the *Content Management Group* (CMG) who are responsible for the adoption of the defined policies and procedures at the operational levels. Both ECGB and the CMG have the responsibility to ensure the ECM governance model is adhered to and maintained.

Operational Functions

The tactical team consists of three subteams charged with supporting the directives of the strategy team: operations, support, and development.

Information Management resources provide operational support for the system, as they help to ensure the enforcement of the governance plan and manage the more routine maintenance of the system. To do this, they perform nightly backups, usage monitoring and analysis, and scheduled task validation. They also keep the system current with security releases and system upgrades.

SharePoint Site owners, system administrators, service desk personnel, and other various support resources create an effective support system with proper channels of escalation for end users of the SharePoint environments. This team handles application questions, defects, and other problems requiring issue resolution.

Technical resources, such as developers, are tasked with implementing change requests and new features, in a manner that fulfills the business opportunities as identified by the strategy team, while also ensuring adherence to standards.

Contributors

The number of content contributors/owners varies by area of the intranet. In many cases, managing content on the intranet was already part of their core job function; examples include the following areas:

- **Enterprise layer:** This layer hosts content viewable by everyone in the company and there are approximately 25 content contributors. The company's Communications department controls the homepage, *News & Publications*, and *Central Help* sections. HR controls the *Employee Center* and *Manager Resources* sections. The Office of Safety & Quality controls the *Safety & Quality* section. The IT department controls the apps, forms, and templates section, and each department has the ability to manage their own department's landing page located under the *Departments* section.
- **Collaboration sites:** Each business group has its own collection of collaboration sites to manage content at the department level. Most of these sites limit access to a small number of individuals and are rarely open to everyone in the company. More than 200 site owners currently control these collaboration sites, and that number is growing as adoption of the new intranet increases.

Contribution

With the new intranet firmly established as a preferred communication and collaboration platform within NAV CANADA, content contribution occurs regularly as part of day-to-day business operations. There is a consistently high demand for national campaigns to be promoted on the intranet's homepage, and the company is creating new collaboration sites on a regular basis as departments launch new initiatives and/or projects that require an effective method of collaborating. To further encourage contribution, the intranet team is working with each business group to migrate select, high-value file shares to the new intranet to increase adoption and gain further returns due to more efficient and effective content management capabilities.

Training

Training prior to launch was extensive. The training plan was led primarily by StoneShare, which was tasked with producing training materials and delivering training to end users and IT resources that would eventually support the solution. This required a tremendous amount of work on the part of StoneShare and NAV CANADA to achieve. StoneShare's experience conducting training programs was leveraged to deliver rich and comprehensive training sessions, combining both theoretical and practical hands-on learning techniques with printed and electronic training materials that were very well received. Having a bilingual trainer that knows SharePoint at a deep level was critical to delivering a solid presentation, answering questions quickly, and ultimately increasing the confidence in the solution.

Individuals received training based on their role. For example, end users who consume and post basic content (such as on collaboration sites) received a basic training offering via interactive PDF and other online material. Users who have administrative roles in the system or control higher risk/visibility content — such as content on the homepage — received more in-depth training.

When the project was launched, StoneShare conducted more than 90 training sessions across the country, training more than 200 content managers and site owners and more than 500 end users. Many more received on-demand self-serve training, including a guided tour of the new intranet's key features and more in-depth prerecorded training available via the *Central Help* wiki.

Going forward, it is the responsibility of content managers to train new site owners and the site owners' responsibility to train new users of their respective collaboration sites on how to use the new intranet. The Information Management department will provide more in-depth training, as needed, to groups requiring it.

Content Guidelines

Here are some example content guidelines from the company's governance model:

- All content will adhere to the one file, one version, and one location best practice. Uploads will be made by the owners of the content. Users can request that any information not available be uploaded or posted.
- Users will create links to content but will not make copies for convenience on their personal hard drives or *My Sites*.
- Edit in place, do not delete documents to create new versions. With version control enabled, documents can be revised and reviewed by appropriate staff then published when changes are completed. This preserves links created by users.
- Site owners are ultimately accountable, but every contributor is responsible for content management. All posted content should be accurate, relevant, and current. Users also can assist in notifying site owners when content needs to be updated or archived.

- Whenever possible, send links to content rather than consuming more resources by attaching files that already exist in SharePoint including in *My Sites*.
- Copyrighted material will not be added to the site without proper licensing or written approval.

Ensuring Quality Over Time

Site owners are responsible for working with their content contributors to manage the quality and freshness of content on each of their respective sites. The intranet team is also working on implementing an automated electronic records management and archiving solution which will ensure that corporate records are retained and disposed of according to a corporate retention schedule and that all non-records are removed from the system after a set period of time to keep the content repository as lean as possible.

Everyone using the new intranet has the ability to report stale or inaccurate content to site owners, who are ultimately responsible for maintaining content quality on their respective sites.

CULLING CONTENT

One of the key accomplishments of the new intranet project was the amount of content that was left behind when the team migrated content to the new intranet. This is a critical step of nearly every redesign and not one that is always successfully accomplished. NAV CANADA's process was arduously thorough and therefore amazingly effective.

The legacy intranet did not have archiving capabilities, which meant that the repository grew uncontrollably over its 10-plus year lifespan. This created several issues. End users complained about the significant amount of stale content on the legacy intranet, as it was cluttering the environment, reducing the efficacy of search results, and having a significant negative effect on the end-user experience. Very early on, team members knew that this problem needed to be solved if they were going to deliver a first-class intranet experience that would meet user expectations.

The most effective way to describe the team's approach is: fact-based. "We took the emotion out of the discussion and solved the problem using a highly organized and fact-based approach," says Simon.

Process

Here is an overview of the key steps the team took to solve the challenging problem of culling content:

- **Content migration methodology:** StoneShare was instrumental in leading the content migration process, which was a highly complex and laborious task. Using a mixture of manual and automated tactics, StoneShare successfully migrated more than 210,000 documents to the new intranet. Most companies leave this content behind to avoid the painful process of triaging, tagging, migrating, and testing content that goes along with such a large project. StoneShare's experience in migrating content to SharePoint gave the intranet team the confidence to commit to its sponsors that it could consolidate the legacy intranet and SharePoint 2007/2010 content successfully. With StoneShare's proven methodology, the team was able to achieve its goal.
- **Content inventory:** During the planning work before the project started, team members conducted a detailed inventory of the existing content on the legacy intranet so that they could understand the nature, sensitivity, and freshness of the content. The inventory would also serve to establish a baseline that would be used to accurately measure the impact of the project on the legacy content. The legacy intranet did not have any built-in capabilities to produce this inventory; therefore, one of the project team members conducted a manual review of the site, capturing each and every page and document on the site. The process was long and arduous, taking approximately two months to complete, with the team member working full-time on this activity alone. The inventory data was collected using a spreadsheet and included key attributes such as: name, size, owner, department of origin, creation date, and last updated date.
- **Inventory analysis:** Once the content inventory was completed, the team proceeded to produce a series of high-level key metrics using the inventory data to help articulate and visualize the data in a simpler format. The data was instrumental in establishing the content migration strategy and plan, which included the content reduction target. For example, the data indicated the fact that more than 54% of the legacy intranet content had not been updated in more than five years. Data points such as these enabled team members to quickly calibrate content reduction targets that they knew could be achieved. They set their goal at reducing the legacy intranet content by 70%.
- **Executive buy-in:** Once the content migration strategy and plan was defined, the team presented the proposal to its executive management committee (CEO and senior VPs) to solicit buy-in and gain support for the reduction plan. Using a well-orchestrated presentation with clear and easy to understand metrics from the content inventory, the team successfully secured a commitment to reduce the legacy portal's content by 70%. Another selling point for the target number was to reduce risk to the overall project. Less content to migrate translates to less effort, time, and complexity, which helps reduce the overall risk to the project. It's a win–win that just makes sense.

- **Communicating the plan:** With executive buy-in on the reduction plan, the team communicated the target to everyone involved in the project, including the extended business team: the users responsible for making the decisions on what to keep and what to leave behind. Using a similar approach, with a well-orchestrated presentation that featured clear and easy to understand metrics from the content inventory, buy-in was quickly secured for the plan.
- **Keep/delete decisions:** The project used a high-touch approach for facilitating the content reduction process. Team members created a content migration work stream with dedicated resources so they could work closely with their business groups and guide them through the keep/delete exercise. Using the content inventory data, they created a SharePoint list that included one row for each piece of content on the legacy intranet. Then, they instructed the extended business team members who were appointed as content decision makers to analyze content owned by their department and make a keep or delete decision for each piece of content.

  Other than the overall reduction target, there were no set criteria given to decision makers. The intranet team left it up to them to determine what to keep or delete. Content marked as *keep* would require a destination that mapped it to the new intranet's IA and also the appropriate metadata required by the new enterprise taxonomy metadata model. Content marked *delete* would be left behind. Every two weeks, the extended business team met for a standard project status update, which the team used to track its progress against the plan. Team members produced a metrics package that tracked the keep/delete/undecided ratios by department. These metrics were also presented to the steering committee to help maintain the focus and priority of the exercise. In the end, the team exceeded the reduction target of 70%, reducing the legacy intranet's content by 75% (approximately 30,000 documents).
- **Content migration:** With the keep/delete decisions made, the content to be kept (approximately 10,000 documents) was staged and migrated to the new intranet using a custom-developed migration script provided by StoneShare, which copied the content from the staging location to its final destination. StoneShare also led the process of migrating more than 200,000 documents from the legacy SharePoint 2007/2010 sites to the new intranet. This content was much newer and more relevant compared to the legacy intranet and required little culling. Once the content was migrated, the team asked the content owners to review the migrated content and validate that it was migrated to the proper location with correct metadata attributes. Given the number of documents that were migrated, it was not feasible to conduct a document-by-document test, so the team opted to conduct thorough tests on sample content, which proved to be efficient and effective at finding pervasive issues, which were quickly corrected by the project team.

- **Running in parallel:** Once the new intranet was launched, the team set the legacy portal to read-only and kept it online and accessible for a period of two months to give users an opportunity to retrieve content from the legacy intranet that may have been missed during the migration. Having the legacy intranet running in parallel with the new intranet also gave employees an opportunity to redirect any links pointing to content on the legacy intranet to the content's new location on Central.
- **Archiving legacy content:** After running the legacy portal in parallel with the new intranet for two months, the team took the legacy portal offline and proceeded to decommission the application and underlying infrastructure. Part of this process included making of a copy of the legacy portal's content database that would be archived to tape for a period of seven years.

What Worked and What Didn't

Overall, most aspects of the above plan worked very well. In particular, the following tactics were highly effective. Simon explains:

- "Having a detailed content inventory was probably the most important step to take, since just about every decision made to create the content migration plan relied heavily on data sourced from the inventory."
- "Having a complete fact base and clear metrics took the emotion out of the process and kept everyone focused on the task at hand. It also gave the project team a lot of credibility as, in many cases, we knew more about the content than the business groups themselves."
- "Measuring the team's progress using metrics and communicating our progress to senior management helped us to keep a healthy pressure to reach the reduction target."
- "Running the legacy portal in parallel was a low-risk and low-effort tactic which provided the project team with an answer to many questions from content owners should a key piece of content get missed in the migration. Having the legacy portal run in parallel for two months after the go-live was a powerful insurance policy which helped our business users be more aggressive in their content reduction decisions."

The one area in which the team struggled was related to the SharePoint list that it created as a proxy for a spreadsheet; the list's purpose was to communicate the content inventory to content owners and collect the keep/delete, content mapping, and metadata decisions. The reason the team used a SharePoint list was that it was easier for the custom-developed migration script to interact with it. However, the SharePoint list did not have certain capabilities, such as the ability to bulk-update many rows at once, which frustrated decision makers and significantly increased the effort required to complete the task.

"Although this technique ultimately worked for us, it was complicated and required a tremendous amount of effort to manage the process and create the custom migration script to conduct the migration," says Simon.

Advice for Other Teams

What's the magic bullet for accomplishing this type of complex, but successful content culling project? "Plan, plan, and then plan some more before approaching content migration," says Simon. "Partner with a firm who has proven experience migrating content to the destination technology to help you plan and execute the migration."

The NAV CANADA team partnered with StoneShare due to its proven experience migrating content to SharePoint, and the team readily admits it is unlikely that it would have achieved its goal of migrating 210,000 documents without StoneShare's methodology, experience, and leadership.

The other key factor to success is to treat content migration as a high risk on the project and mitigate accordingly. "Conduct as much research [as possible] on the content before the project starts to fully understand the size of the content migration challenge and how much scope, schedule, and cost will need to be dedicated to the activity as part of the project's business case," says Simon.

"Perform a detailed content inventory of the legacy intranet's content and produce clear metrics to analyze and articulate the data," he says. "Set a realistic target on the amount of content to reduce, secure senior management buy-in on the target, and take a top-down approach for mobilizing resources to achieve it. Track your progress using consistent metrics and regular updates, and choose your migration process carefully."

Consider third-party tools to assist in the content migration to automate the process where possible, and consider running your legacy intranet in read-only mode in parallel for a period of time after the new intranet goes live to allow time for content owners to retrieve content that may not have been migrated.

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
ECM Platform Software / Hardware	• SharePoint 2013 Standard • VMWare (virtualized)
Database Software / Hardware	• SQL Server 2012 • VMWare (virtualized)
Web Server Hardware and Operating System	• VMWare (virtualized) • Windows Server 2008 R2
Bug Tracking / Quality Assurance	• Team Foundation Server
Design Tools	• Adobe Fireworks • Adobe Illustrator • Adobe Photoshop
Site Building Tools	• Visual Studio
Content Management Tools	• Content Matrix
Search	• SharePoint out-of-the-box
Other Functions	**Add-ons:** o Nintex Workflow o Nintex Forms o Royal Slider (rotating banner) o Archetonomy (megamenu)

Technology Evaluation

During the ECM strategy engagement, a technology assessment was conducted to identify a technology that would be appropriate for NAV CANADA's business environment and reflect the needs of the consumers and contributors of information.

Both platform and best-of-breed vendors were evaluated. Platform vendors offer broad ECM capabilities in a single software package. Platform solutions cover many different workloads, but often cannot compete with a best-of-breed tool built specifically to address a particular workload. And platforms sacrifice depth for breadth.

NAV CANADA's ECM requirements were such that most ECM platforms could address a sufficient number of the requirements; however, the company conducted a significant amount of research into these types of solutions and decided to seek a platform to meet its needs. This decision was driven in large part due to the company's IT strategy of seeking platforms to provide scalable technology foundations capable of growing with its needs and reducing the number of vendors that the company must interface with and the skills its support teams need to learn.

Eight vendors were evaluated based on predefined criteria. Significant weight was applied to the "Modern and Effective Experience" criteria to emphasize the importance of an effective user experience as a critical success factor. The team invited representatives from each business group to attend product evaluation demos and rank each solution's user experience based on a variety of usability questions. This step was key for the success of the evaluation.

"This was an important aspect of our solution evaluation," says Simon, "to get the business or end-user perspective on ease of use."

One of the reasons the organization selected SharePoint was that it was the most intuitive solution of all and offered a very strong user experience that was familiar in some ways to the end user, since the company had recently upgraded Microsoft Office, which also offered the ribbon interface.

To validate the platform's capabilities, the team partnered with StoneShare at the beginning of the program to conduct a comprehensive gap-analysis comparing its requirements to SharePoint's capabilities. Team members also wanted to know which version of SharePoint (standard or enterprise) was best suited to meet their requirements. StoneShare assessed each requirement, informing NAV CANADA if it could be met using out-of-the-box features or a third-party add-on, or it required a customization. This process gave the team assurance that SharePoint was capable of meeting its requirements. StoneShare also produced a highly detailed technical architecture for implementing SharePoint at NAV CANADA, which was another great opportunity to assess the product's capabilities and implementation requirements before the project started. StoneShare's deep knowledge of SharePoint architecture and implementation provided the NAV CANADA team with invaluable information to plan the project and mitigate risks accordingly.

RESULTS AND ROI

The project achieved its main purpose: to retire the legacy intranet, which was no longer meeting business requirements, carried a very large infrastructure footprint, and was incurring escalating licensing costs. By replacing the legacy intranet, the company addressed the obsolescence and licensing risks and now has a modern and fully supported content management and collaboration platform that can scale with the growing demand for enterprise content management services.

Along with that success, the team points to some measurable outcomes worthy of note. The team also achieved the following with the launch of the new intranet:

- Reduced legacy portal content by 75%, resulting in 30,000 documents being deleted

- Migrated more than 880 SharePoint (2007/2010) sites, representing more than 200,000 documents, to Central
- Conducted 90 training sessions with more than 500 users across Canada
- Trained 200-plus content managers and site owners on how to govern Central
- Achieved tremendous usage since going live — twice that of the legacy site — with more than two million hits in five months

Some softer measures have also been achieved by the organization with the introduction of the new intranet. These include:

Financial Benefits

- Standardization of content management tools and processes, which has led to a more efficient use of technology and reduced costs related to content management
- Reduced time required to make content changes by providing self-serve content management capabilities

Employee Benefits

The project played a key role to enable a digital workplace at the organization, which improved productivity and engagement by allowing employees to**:**

- Find the information and people they need to do their jobs quicker and easier
- Collaborate, search, and complete tasks, as well as read the latest news
- Much more easily find, submit, and track frequently used business process transactions using eForms

The project also allowed the organization to measure the behaviors and benefits of the ECM platform and make incremental improvements to encourage people to use it.

Ultimately, the digital workplace improves productivity and strengthens the workplace technology environment to help people work smarter and also help attract and retain the best employees.

Technology Benefits

Decommissioning the legacy portal technology by leveraging investments made in the SharePoint ECM platform and electronic form technologies has addressed significant gaps in the company's technology environment; these accomplishments are aligned with IT's platform strategy, and include the following:

- Retired obsolete employee portal (Plumtree), which had reached end-of-life

- Used SharePoint ECM platform — first introduced in phase one of the program to modernize the company's corporate website and introduce a new secured extranet — to replace the employee portal, taking advantage of employees' existing skillset in SharePoint
- Introduced new eForms capabilities, leveraging SharePoint ECM platform
- Reduced user errors with fixed form validations through eForms, and improved form processing time through automation

LESSONS LEARNED

NAV CANADA team members share some of the lessons they learned in creating the new intranet:

- **Hire experts.** "Partnering with external firms such as StoneShare and Atomic Motion was a key success factor to bring expertise, proven methodologies, and lessons learned by their experience, not ours, to help de-risk the project and deliver better results. Partnering with these firms using a co-located model also provided tremendous opportunities to transfer knowledge from the external firms to in-house team members that is invaluable in becoming self-sufficient, which was our goal. Once the project was over, all external firms left, yet we retained sufficient knowledge to manage and maintain the platform going forward." (Simon Robert)
- **Strong leadership is key.** "You need strong leadership and execution from start to finish. These projects are difficult and require strong leadership at all levels of the project to succeed. We were fortunate to have that leadership, which ensured that decisions were made quickly, issues were dealt with in short order, and that the team was held accountable to perform at a high level." (Simon Robert)
- **Strategically manage stakeholder input.** "When building an intranet, you can't allow a free-for-all in terms of ideas and opinions. You need to do your research up front, vet with a few key stakeholders (in our case, HR and Communications), and approach the remaining stakeholders with firm recommendations. This saved us a ton of time, but still allowed us to manage the stakeholders in a way that they felt part of the process." (Bethany Johnson, Project Manager)

- **Sometimes low tech is more effective than fancy tools.** "We ran into some technical issues early on that caused an impact to schedule. In conducting a recalibration exercise, we decided to start with a (very large) whiteboard rather than traditional project scheduling tools. We realized that the whiteboard provided clear visibility to the dependencies and potential conflicts that we would miss with the traditional tools. We knew there were a lot of moving parts to delivering the new intranet, and to bring visibly and understanding to all of it was difficult. Using the whiteboard forced the light bulbs to turn on, as we would move things around to adjust for dependencies, conflicts, or time constraints. The end result was a tight but achievable schedule that we were able to hold to. We used this white board exclusively for the remainder of the project." (Johnson)
- **Focus on your content migration strategy — and stick to it.** "Don't say 'We'll get to that later' because you won't. Once people see how much work it is to tag and classify content, they'll think twice about migrating stale, dated files that they're too scared to archive. The time it takes up front to thin out and tag/classify your content is well worth the effort." (Kim Boulet, Change Management Lead)
- **Communicate early and often.** "Repeat your message over and over again until your employees finally say, 'Okay, I get it.' We had a particularly engaged team of representatives from across the organization and they did a great job in cascading information throughout their teams. But there are always pockets of users that, for whatever reason, don't hear the message. By consistently stating our messages with clear purpose and direct calls to action, our team members were less likely to say 'You didn't tell me' or 'I didn't hear you.'" (Boulet)
- **Create governance and adhere to what you create.** "We were completely transparent about our governance guidelines from day one. We were firm on new guidelines, such as adopting out-of-the-box features (zero customizations) and avoiding site sprawl." (Boulet)
- **Create a style guide and circulate it widely.** "We developed a new style guide and helped our clients to adapt to a new way of thinking: that when it comes to navigating an internal intranet, less is more. Web content shouldn't look different from one page to the next; there should be a clean, cohesive look and feel to the content with a focus on the user experience." (Boulet)

- **Buy-in will be as strong as the emphasis you place on user participation.** "The best practices for NAV CANADA's ECM program were stakeholder management and change management for the organization. The NAV CANADA ECM program ensured end users support and buy-in by enlisting key individuals from each business unit to be part of its extended project team. All major decisions of the project are consulted and approved by the extended project team members. The Steering Committee of the ECM program is also represented by executives from each of the business units. This ensured top down awareness and support for the extended project team members. By using this inclusive model, change management effectively begins at the very start of the project and creates a sense of ownership for every business unit during the entire journey of the project." (Raymond Ho, Technical Delivery Manager)
- **Staff according to need, not according to availability.** "One of the project team's key technical lead resources from our partner was assigned to the project on a part-time basis. This resource was assigned to two projects at the same time at two different client locations each week. Unfortunately, this arrangement did not work well in practice, as the rest of the team working full-time was constantly expecting support and direction from this resource, who was only on-site two out of five days each week. Consequently, the demand of this resource while they were in the office was overwhelming, and it became counterproductive and unsustainable. It ended up causing the individual and his team to perform many overtime hours to catch up on a weekly basis to meet commitments. This is not a sustainable model." (Ho)
- **Stakeholder involvement is key to ensuring success.** "This was a large-scale enterprise project, and we needed to ensure buy-in and support in order to be successful. Resources from 11 business units were needed to migrate and develop new content. One of the keys to our success was strong project sponsorship coupled with early and regular executive engagement. We secured their commitment at the onset and they were there throughout to honor that commitment and provide the support we needed." (Johnson)

Repsol S.A.

OVERVIEW

COMPANY

Repsol is one of the top private energy companies in the world, with a presence in key areas of high potential on the world energy map. The company operates across the value chain, integrating upstream and downstream activities, and working to offer the best energy solutions for society and the planet.

Headquarters: Madrid, Spain

Company locations: 27,000 employees located across more than 40 countries.

Locations where the intranet is used: Employees at all Repsol locations use the intranet.

Annual sales: Net income in of 1.612 billion euros (2014)

THE INTRANET

Users: 21,000 employees

Mobile approach: Responsive web design (in progress)

Technology platform: SDL Tridion 11, .Net Framework v4.5.2 (Asp.Net MVC 4), SQLServer

TEAM

Design team: Four in-house people formed the core team, which included two people from Internal Communications (IC): Begoña Escribano Acordagoitia and Natalia Solana Aliende; and two people from IT: Francisco Javier Jurado Henche and Angel Lera Hernández. Also, Repsol contracted with the Adesis and Vass agencies to design and build the site and the Arista agency for content migration.

From an internal operational standpoint, the team was supported through collaborations with Eva Costa Cantero (CI, solution definition); Esther Poza (CI, content); Augusto Ruiz Garcia (IT, definition and management development architecture), Elena Ortín, Carlos Bonete, Carlos Nieto, and Alfonso Gomez Rivera (IT, management and support of the production platform).

The team also relied on the Strategy and Management Committee, which included the management team of each area outlined above. Committee members include Jaime Martinez, Ester Moya Pacheco, Javier García Quintela, Enrique Fernández Puertas, Ennio Fattiboni, and Eugenio Trillo Marín.

External agencies: The team was supported by Arista and two other agencies as follows.

Adesis: Guillermo Vallejo, Carlos Esteban, Marta Elicegui, Francisco Recio, Olga Martín Tirado

Vass: Pedro D’Amico, Carlos Perez Ot

Other external contributors: Daniel Gómez López-Brea, Daniel Verdugo, Carolina Bermejo, Alexander Balseiro, Maider de Jesus, Nacho Salvador

INTRANET TEAM

Team members shown here (left to right): Ester Moya Pacheco, Ángel Lera Hernández, Enrique Fernández Puertas, Natalia Solana Aliende, Begoña Escribano Acordagoitia, and Francisco Javier Jurado Henche.

HIGHLIGHTS ABOUT THIS WINNER

Repsol is very focused on objectives; the new intranet acts as a catalyst for change and is an important asset for spreading Repsol's values of responsibility, innovation, transparency, flexibility, and integrity. It is also an intranet that is accessible to all employees, regardless of any visual or auditory impairments.

Repsolnet is the Swiss Army knife of intranets — a one-stop shop for accessing everything an employee might need:

- **Flexibility and Control:** Customizable sections and links enable employees to work in a manner best suited to their needs and way of working. Employees can edit the links and tools and their location on the *My Desktop* section. This truly customizable area helps employees realize their productivity potential. The light version of the intranet design satisfies employees working over slow connections.
- **Location and International Accommodations (Light Version):** Translations, location-specific information, and light versions of the intranet cater to employees in 40 countries, in the office or field, with slow or speedy internet connections. Repsolnet provides helpful tools and information for this multi-location, multi-country organization.
- **Accessibility:** The design provides a framework for accessibility features, including image descriptions, captions, and transcripts for the audio in video files; legible text size and contrast; keyboard support and expected shortcuts; assistance with elements such as tables; and other training advice and written manuals to help content providers keep up with accessibility guidelines.

- **Assistance:** Tutorials explain new Repsolnet features, increasing the likelihood that employees will discover, find, and use them appropriately.
- **Tags:** Tags for content and user-generated favorites help make content easy to find.

BACKGROUND

The company's intranet, Repsolnet, was in need of improvement across many areas, but the update was primarily driven by the need to better serve the changing needs of employees and of Repsol as a company. Specifically, the team identified the following shortcomings of the old intranet:

- It did not behave as a single portal containing all the information and working tools that users needed for their day-to-day tasks.
- The search engine did not return the results that users needed.
- Employees in some countries and industrial centers with reduced connectivity had problems accessing and browsing smoothly.
- Communication was one-way, because the flow of information on the intranet went exclusively from the company to employees.
- There was no collaboration or participation from employees.
- The large number of pages and the depth of levels made browsing difficult.
- Content management was not very practical because 13 different versions of the intranet existed (depending on country and language).

Faced with these challenges, the team decided on a design direction that promoted productivity and collaboration, making the new intranet a communication channel, while also making it easy to maintain and scalable for future growth.

Challenges

Project planning was one of the biggest hurdles the team faced. Tight project deadlines meant that tasks that would ideally be independent had to overlap. This required extra coordination between the technical (development) and content areas. Although this presented challenges, it also led to some happy accidents, as the team was able to turn lemons into lemonade. Following are two examples:

- **Loading content when the platform was still under development.** The tight timeline meant that the team had to start loading the content while the platform was still under development and not all features were available as the content was loaded. Overlapping these two phases returned unexpected value:
    - **Technical:** From a technical standpoint, working with content and real-life use case scenarios helped the team identify places that needed improvement during early stages of development; this left a sufficient amount of time in which to address the issues.

- **Content contribution:** From the content contribution side, starting this phase early let the team identify and apply best practices for generating the content using all the functionalities included in the CMS.

- **Testing the search engine without having all content published.** For search results to be truly reliable, search refinement had to be done with the greatest possible quantity of indexed content, which unfortunately was being loaded while the tests were being carried out. Fortunately, despite it being a difficulty, this factor contributed to an improvement in the end result as the value of the weights and content keywords could be corrected as the team progressed.

Another challenge the team encountered was integrating an independent platform — the Chatter social network — within Repsolnet. However, the team was able to integrate it from a functional and graphical standpoint with very little trouble.

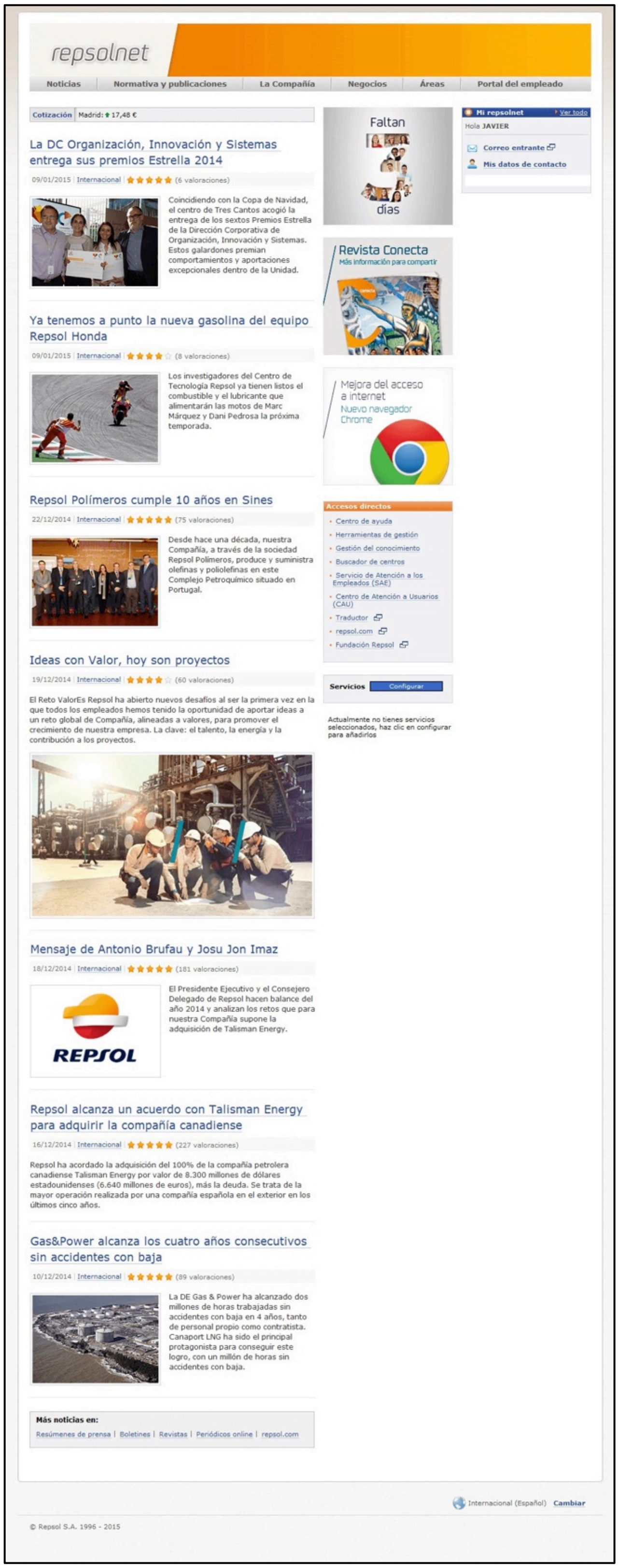


Image 113.
Repsol Intranet: Old Intranet Prior to Redesign.
The old intranet is proof of how much of an improvement the new intranet is in terms of features, user-friendliness, and style.
113_Repsol_01_HomePage_old.png

DESIGN REVIEW

Homepage

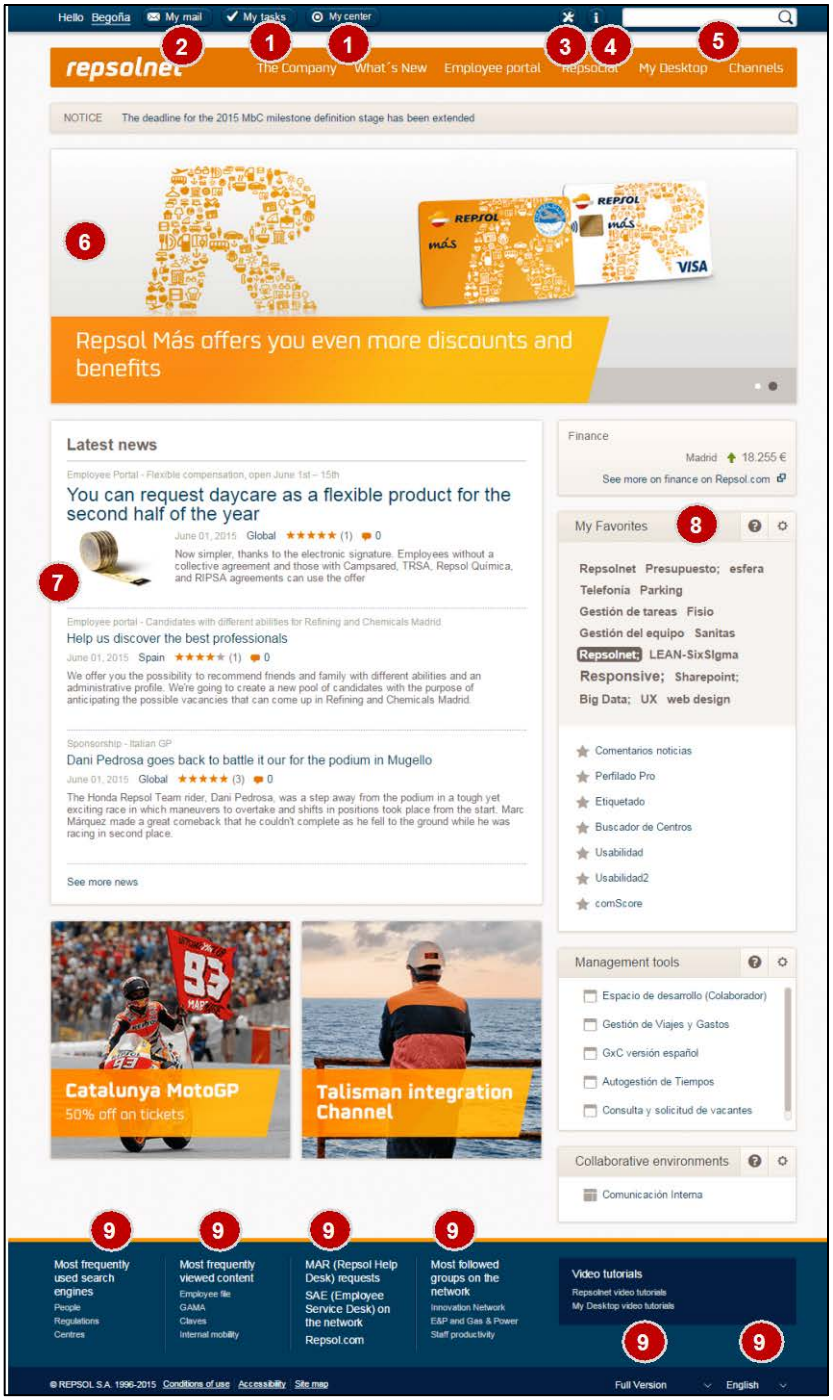


Image 114. Repsol Intranet: Homepage.
114_Repsol_02_HomePage_live.png

Homepage Highlights

Whether working in an office, factory, refinery, service station, or oil platform, Repsolnet enables some 17,000 Repsol employees to easily access many helpful work tools, their personal work and information, and organizational information.

1. **Tasks and Work:** Employees can quickly get to their personal work files and tasks lists via the *My tasks* and *My center* buttons at the top. In these areas, they can get to work, as well as view and approve or deny requests. Making tasks visible and readily accessible keeps processes moving forward and helps prevent work bottlenecks at the organization.
2. **Email:** Employees can reach their email via the *My mail* button in the blue bar at the top of Repsolnet.
3. **Utilities:** The wrench icon to the left of the search field leads employees to helpful tools, including a currency converter, time zones, internal telephone codes, and an automatic translator. With employees located in 40 different countries, these tools come in handy quite often.
4. **Help:** Various support services are available through *Help*, including video tutorials on using Repsolnet. These help employees learn about available features and tools and how best to use them.
5. **Search:** Located in the upper right of the page, an empty white field on a dark blue background makes the search field highly findable and visible. The magnifying glass icon used to invoke the query is a helpful indicator that the field is meant for searching.
6. **Carousel:** Simple headlines and associated images are displayed in the top section of the page. Above the carousel, the *Notice* displays special alerts for employees.
7. **News:** Three of the most recent news items appear in the main content section. These items display all of the helpful information, including visible headlines, short descriptions, dates in international format, star ratings, number of comments, and the news item's source. Such information helps employees quickly decide if they want to click on an article.
8. **Custom Links:** Employees can choose links they would like to see in the right rail. These *Favorites* provide speedy access to the user's most desired pages.
9. **Footer:** The footer gives users links to the most frequent searches, the most-viewed content, common Help Desk requests, and the most-followed groups. All of these links aggregate knowledge gained from everyone using Repsolnet and turn this knowledge into supportive suggestions. Users can also view a condensed version of the site and change the language they view the intranet in.

My Desktop

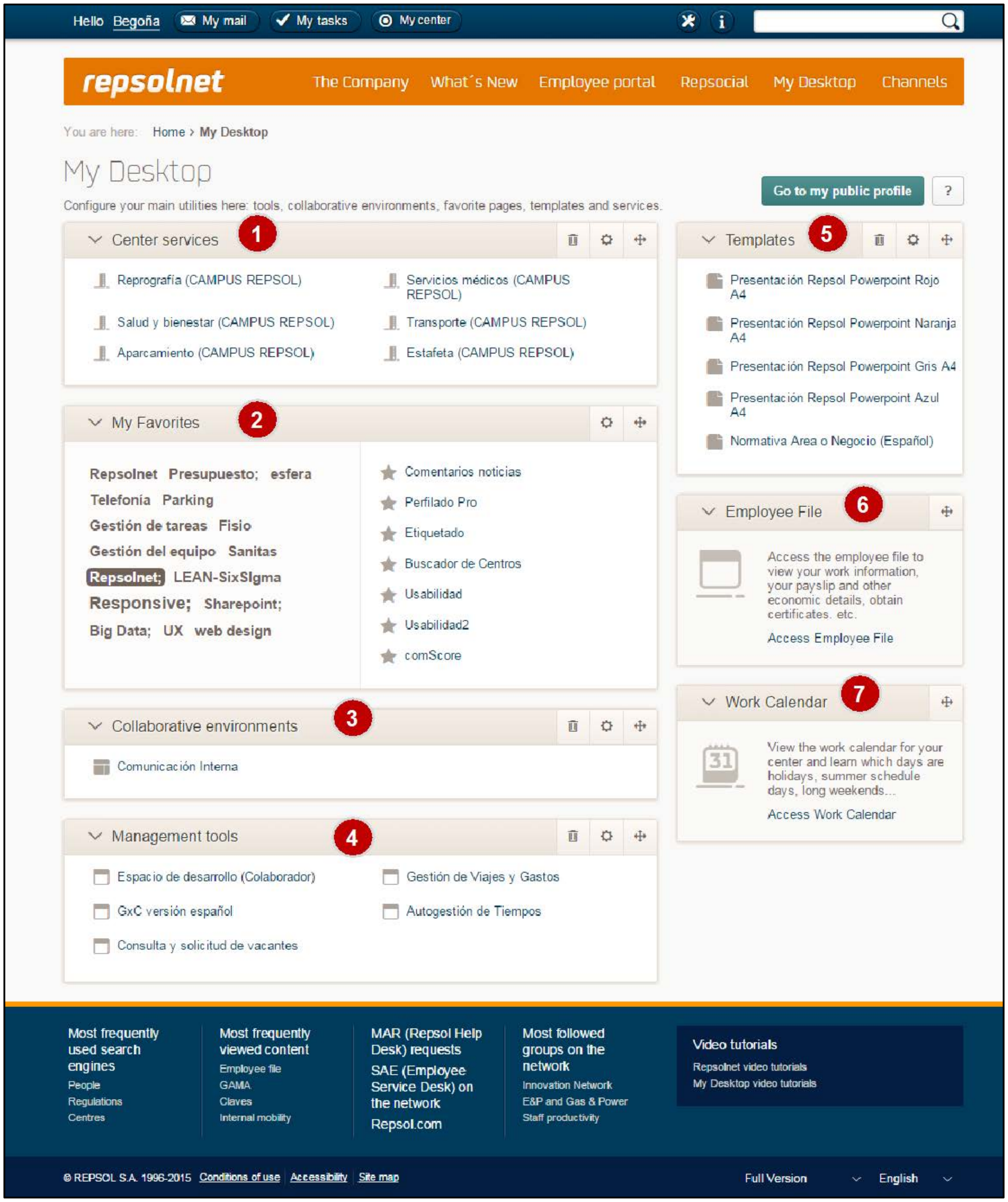


Image 115. Repsol Intranet: *My Desktop*.
115_Repsol_03_MyDesktop_live.png

My Desktop Highlights

This personal *My Desktop* section of Repsolnet serves up a host of tools to help employees stay informed and get their work done. They can also customize this section to their heart's content, making it work for them.

1. ***Center Services*****:** These links lead to help and services related to Repsol's various building locations, helping employees discover and locate amenities.
2. ***My Favorites*****:** Employees can add links and tags to their desktop.
3. ***Collaborative Environments*****:** This section shows links to collaboration spaces, where employees can work closely with colleagues on various efforts and projects.
4. ***Management Tools*****:** This section consolidates tools related to training, vacation, development, and so on.
5. ***Templates*****:** Various corporate document and presentation templates are readily available in this section. Thus, employees don't have to seek out the most recent versions, use off-brand designs, or be concerned with styling their deliverables.
6. ***Employee File*****:** HR-related information, such as pay stubs, tax forms, and other employment information is housed in this section.
7. ***Work Calendar*****:** Corporate events and holidays by location appear here, keeping employees abreast of time off and company events.

Edit Desktop

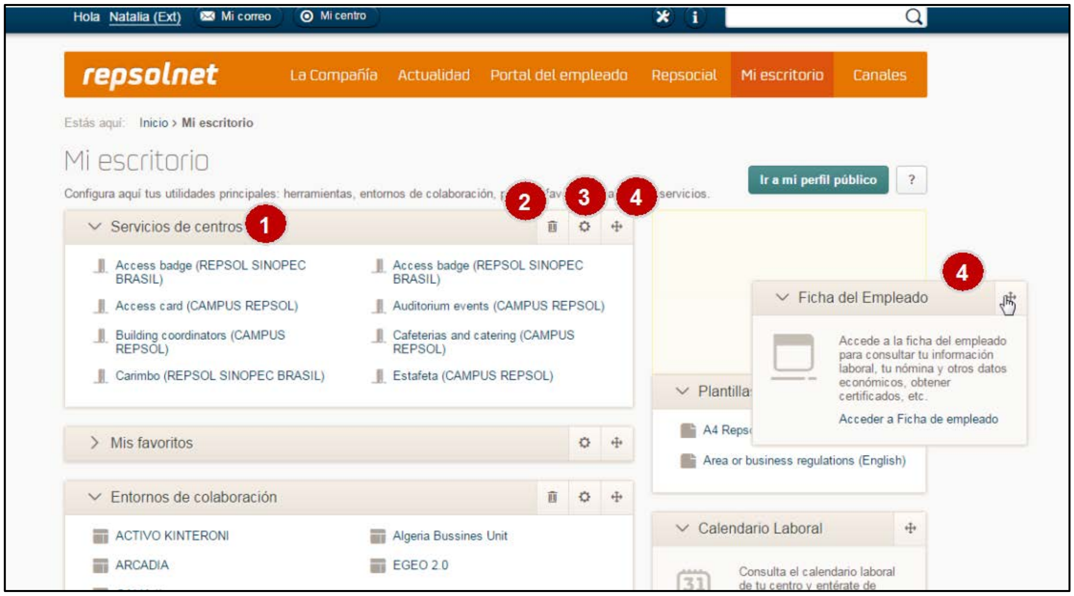


Image 116. Repsol Intranet: Editing *My Desktop*.
116_Repsol_04_Editing_My_Desktop_live.png

Edit Desktop Highlights

The three icons in the upper right of each section let employees edit their desktop.

1. **Title:** The section title appears on the left, above the list of links, and is accompanied by a caret icon. This icon collapses or expands the section, to show or hide options to make room for other things on the desktop.
2. **Trash:** The trashcan icon, the first in the icon set in the upper right of each section, lets users delete the section.
3. **Settings:** The cog icon lets users add, remove, rename, and reorder the section's links.
4. **Move:** Grabbing the cross icon and dragging the section moves it to a different location on the desktop. As this screen shows, helpful feedback displays when users are moving sections.

Add Favorite

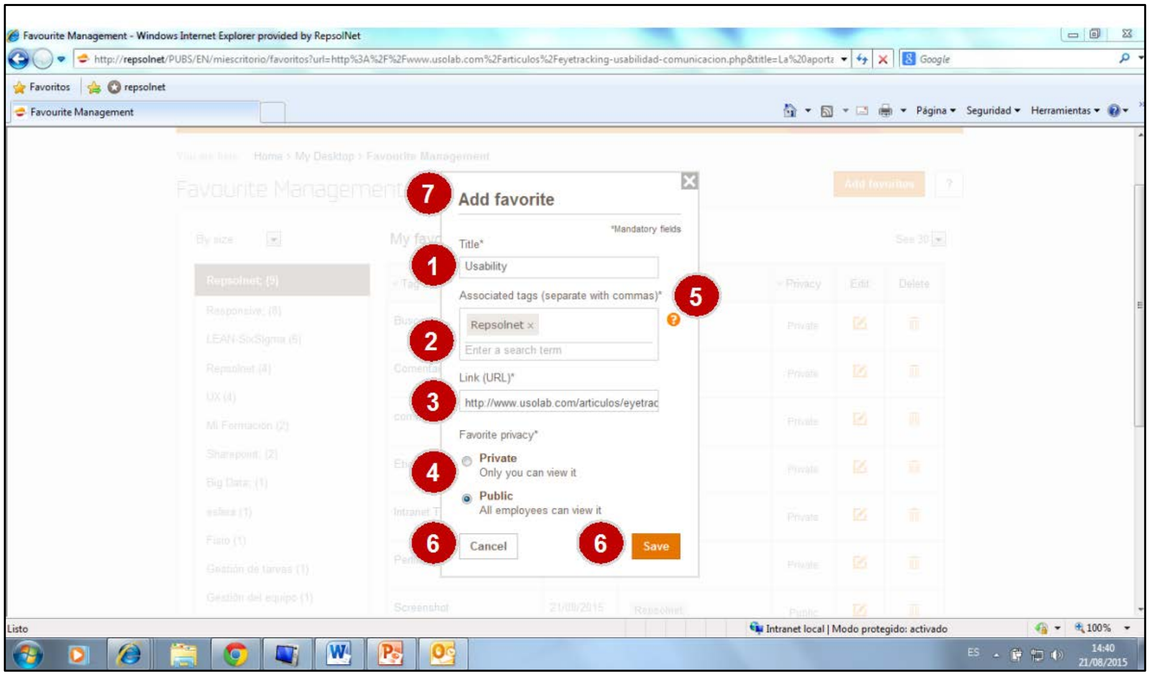


Image 117. Repsol Intranet: Favorites Management.
117_Repsol_05_Favorite_Management_live.png

Add Favorite Highlights

The dialog to add or edit favorites is simple and has more functionality than old-fashioned browser bookmarking.

1. **Title:** Employees can choose a label that make the most sense for them and creates a memorable link. This offers freedom and flexibility.
2. **Tags:** Adding tags makes it easy to find favorites related to particular topics. This is especially helpful when a favorite links to a section that encompasses a variety of subjects and tasks. Adding tags puts less pressure on the title itself to be a perfect description.
3. **URL:** Users can edit the page address if needed.
4. **Private or Public:** Choosing the *Public* radio button displays the links to others who view the person's user profile document. This feature allows employees to suggest — and, in a way, curate — content for each other. If employees want easily access to a link but do not want to share it, they can choose the *Private* radio button. The notations under these labels help employees understand the difference between these options.

5. **Help:** For assistance with tagging, users can select the orange icon with the question mark. This is an astute option to include, as users might not add tags if they don't understand how they work. Tagging is a powerful way to help others find the best content, and the benefits of it can be immeasurable.
6. **Buttons:** The *Save* button here is legible, and its orange background on the white page makes it far more striking than the white *Cancel* button. This is a smart way for designers to lead users to the most expected choice. Details like these differentiate a great design from a pretty good one.
7. **Dialog Name:** The *Add favorite* title at the top of the modal confirms to employees what they can do here, which helps to build confidence.

Profile

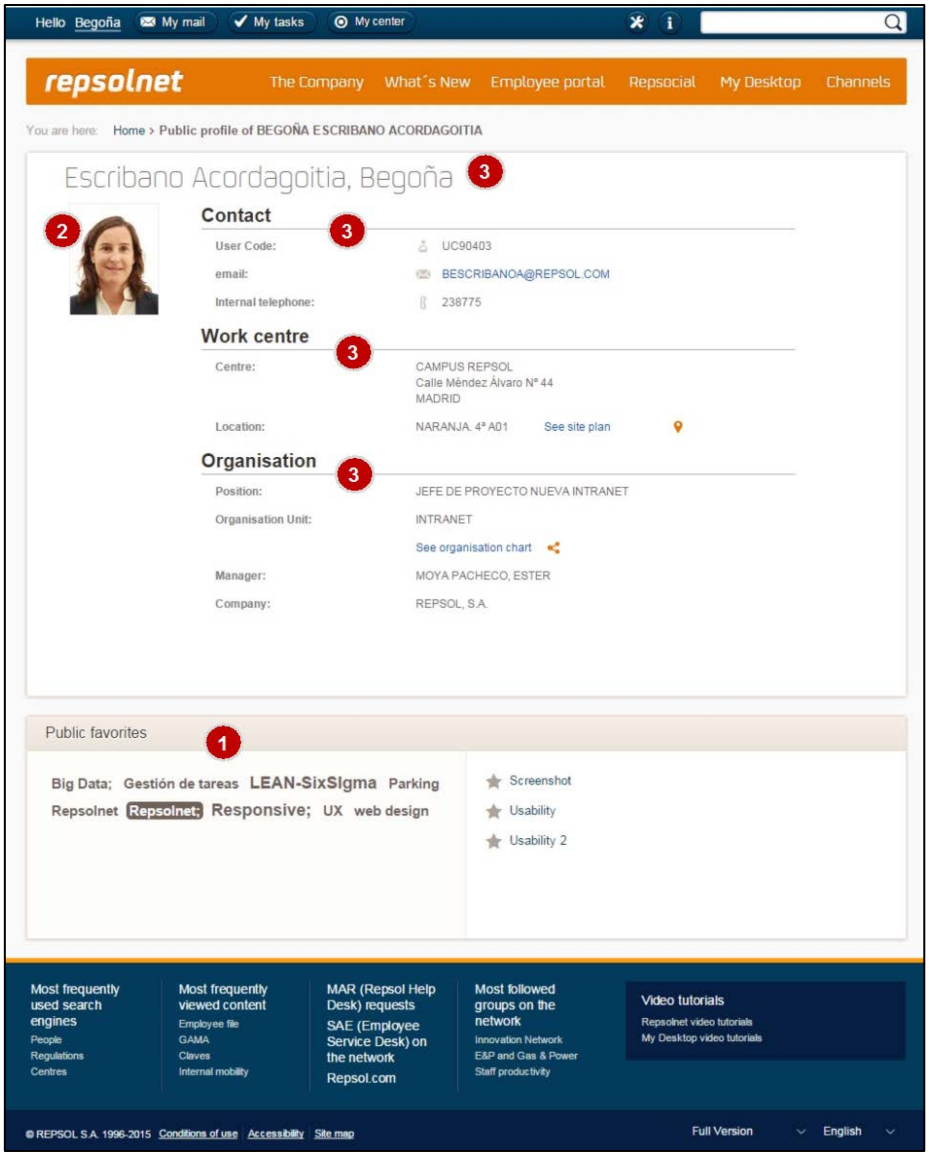


Image 118. Repsol Intranet: Public Profile.
118_Repsol_06_PublicProfile_live.png

Profile Highlights

1. ***Public Favorites*****:** The links users add and designate as public appear to all who view their profile.
2. **Photo:** The person’s photo appears at the top.
3. **Name, Contact, and Job Information:** Name, job title, email, phone, office, title, manager, a link to the organizational chart, and more appear in the main content section.

Click to Call

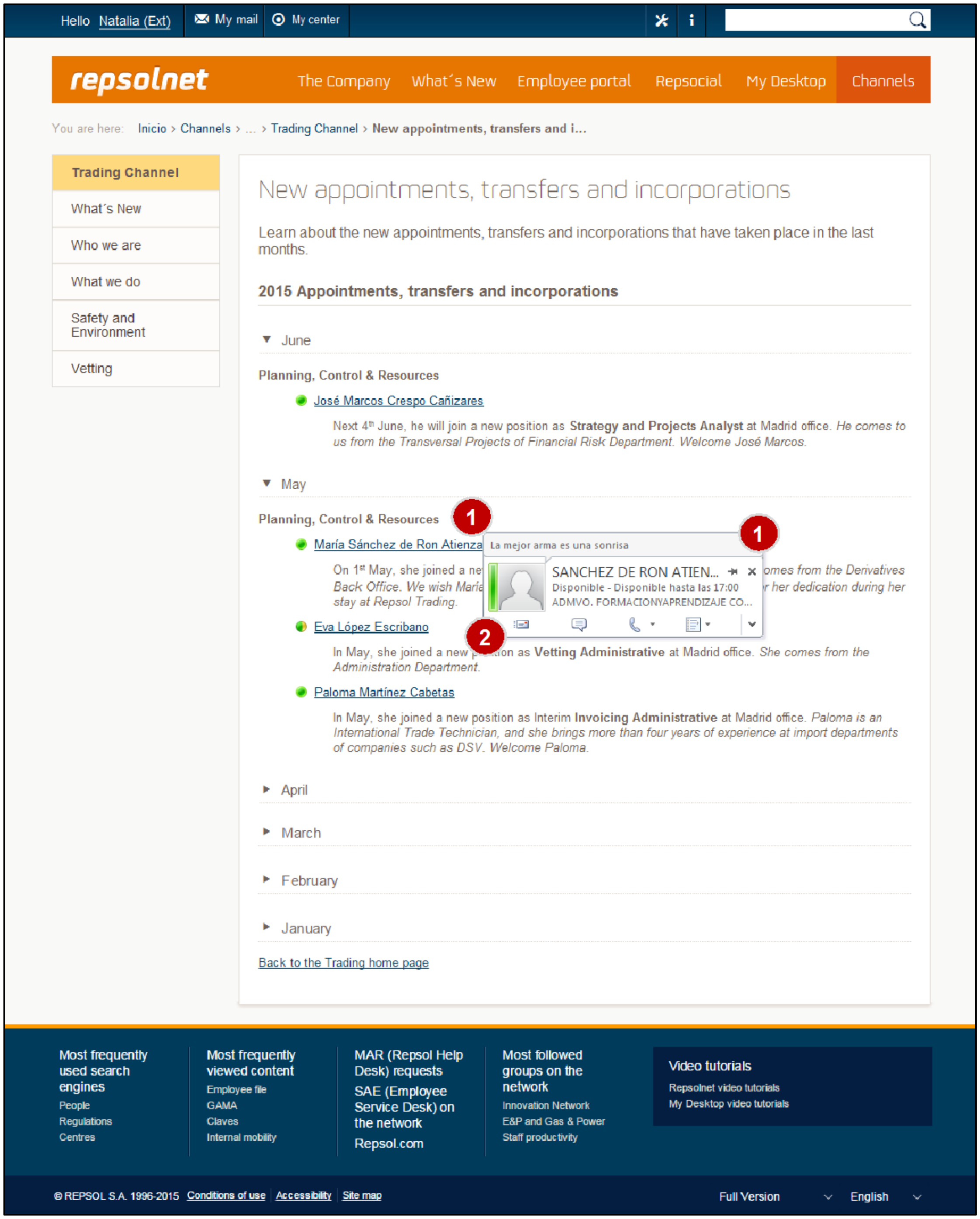


Image 119. Repsol Intranet: Click to Call.
119_Repsol_07_ClickToCall_live.png

Click-to-Call Highlights

In addition to each person’s profile document, the click-to-call feature provides the information needed to contact anyone immediately.

1. **Name Link on Content Pages:** Hovering the cursor over a person’s name opens a pop-up window with the person’s information. This eliminates the step of trying to find a person you are reading about. The intranet provides immediate gratification and speeds up connections between people.
2. **Contact Links:** From this pop-up, users can immediately contact the person in multiple ways, including email, chat, and calling.

Light Version

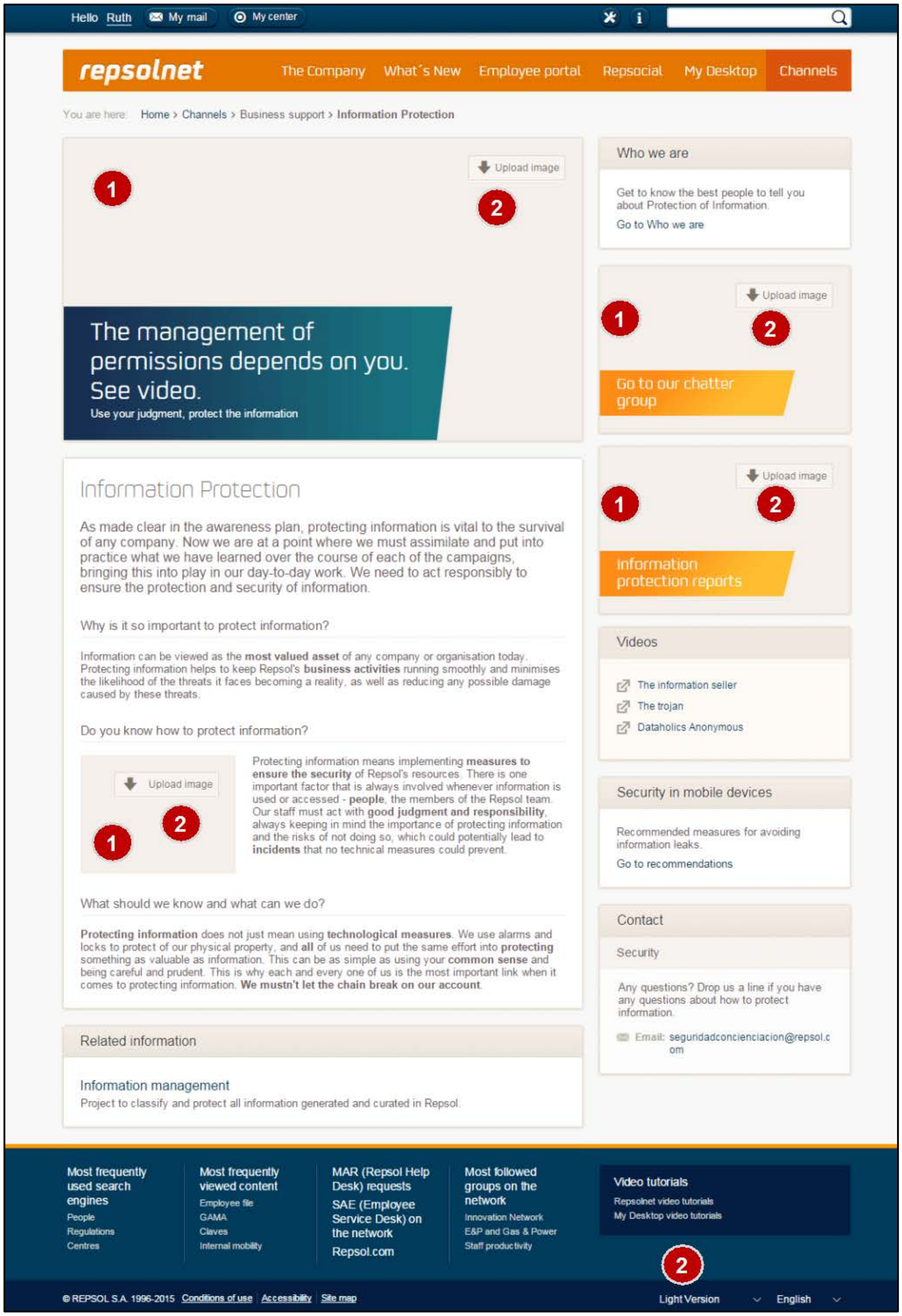


Image 120. Repsol Intranet: Light Version.
120_Repsol_08_LightVersion_live.png

Light Version Highlights

To cater to the employees who use Repsolnet over a slow internet connection, the team created a light version of the intranet. This light design resulted in a 36% increase in pages visited per user per day.

1. **No Images By Default:** Because images are the primary culprit of slow page-load time, the light version withholds images by default. Depending on the logged in user's location, Repsolnet will choose the full or light version of the design.
2. **Control Over Images:** In each image's stead appears an *Upload image* button. Users can ignore this if they prefer to continue browsing without images. Or, they can upload any particular image they are interested in. To see all images, they can scroll to the footer and select the full rather than light site version. These options help employees remain in control of what they want to see.

Channels

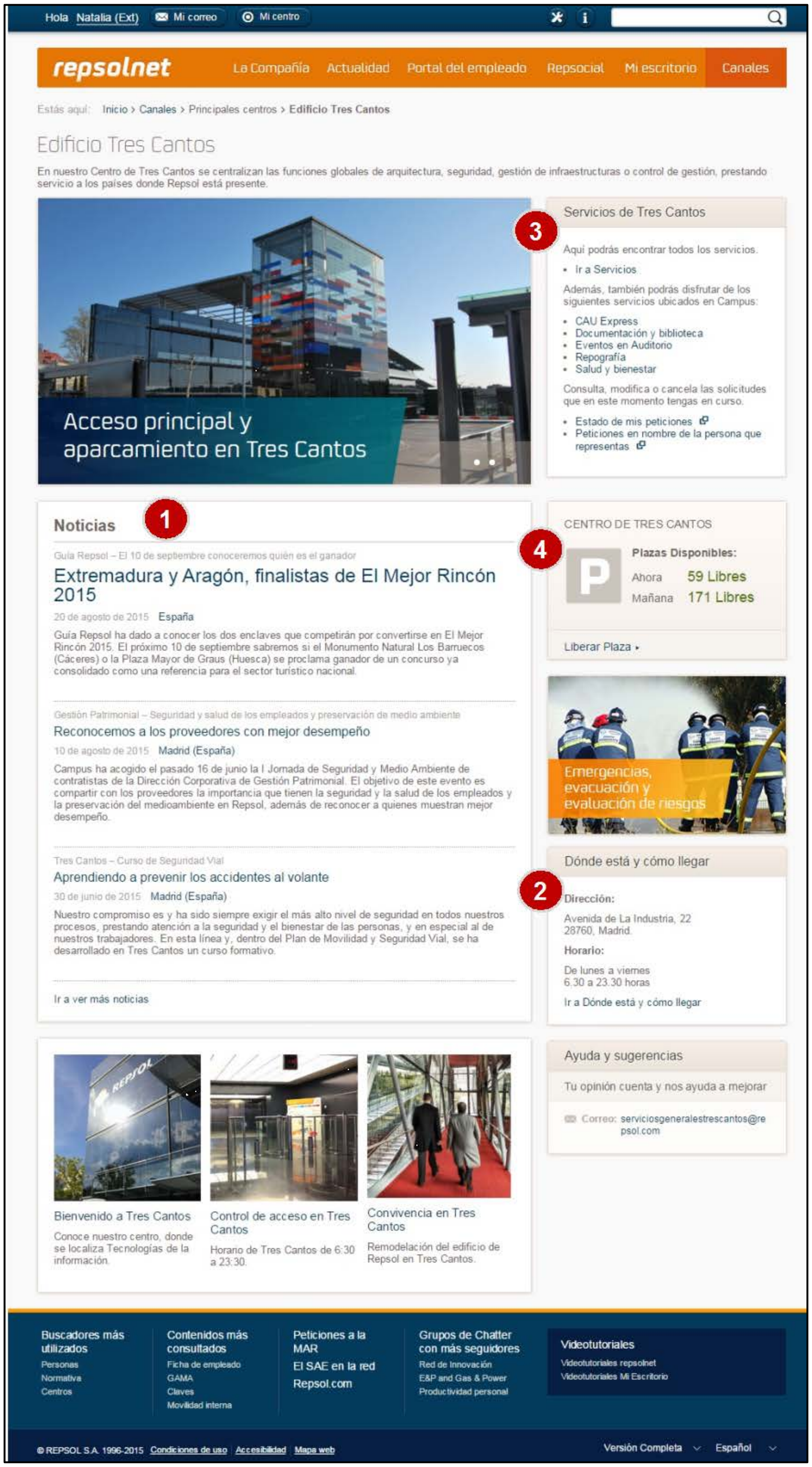


Image 121. Repsol Intranet: Channels. *121_Repsol_09_ChannelsCenter_live.png*

Channels Highlights

Repsolnet makes it possible for different businesses, corporate divisions, and centers within the company to share and find specific information about their activities. Designers derived sections they call *channels* to help organize this content, and all channels follow a similar design layout. Having a consistent structure makes it easier for users to acclimate on any channel and find needed elements in expected places. This helps make the intranet feel stable and predictable, but not boring. These pages are some of the most visited on the intranet.

1. **News and Events:** A list of information and happenings keep users informed.
2. **Location:** Address and directions help employees find various offices.
3. **Services:** Access to all the available services — such as the cafeteria menu and emergencies and evacuation information — not only inform employees, but also help Repsol keep everyone safe. Also, employees can request services, including photocopying, mailing, and office supplies.
4. **Parking:** The number of free parking spots available at the moment and the next day is an especially popular feature in locations with heavy automobile traffic.

Channels Center on the Old Repsolnet

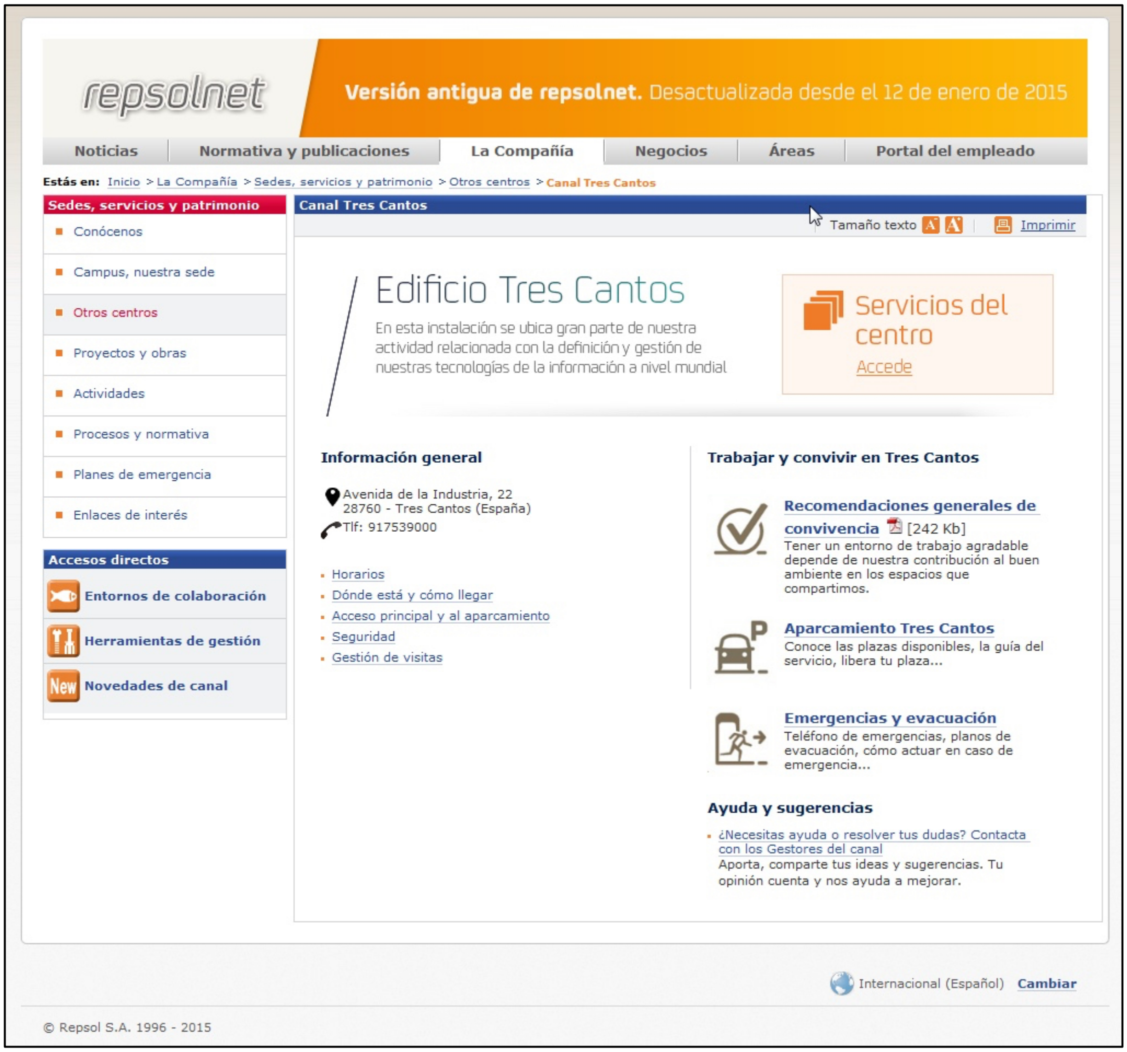


Image 122. Repsol Intranet: Old Channels Design. In the channels design on the old intranet, few centers had their own channel and accessing the content that did exist required many more clicks. This format also did not group together all of the center's available information such as news, main services, and parking information. *122_Repsol_10_ChannelsCenter_old.png*

Related Content

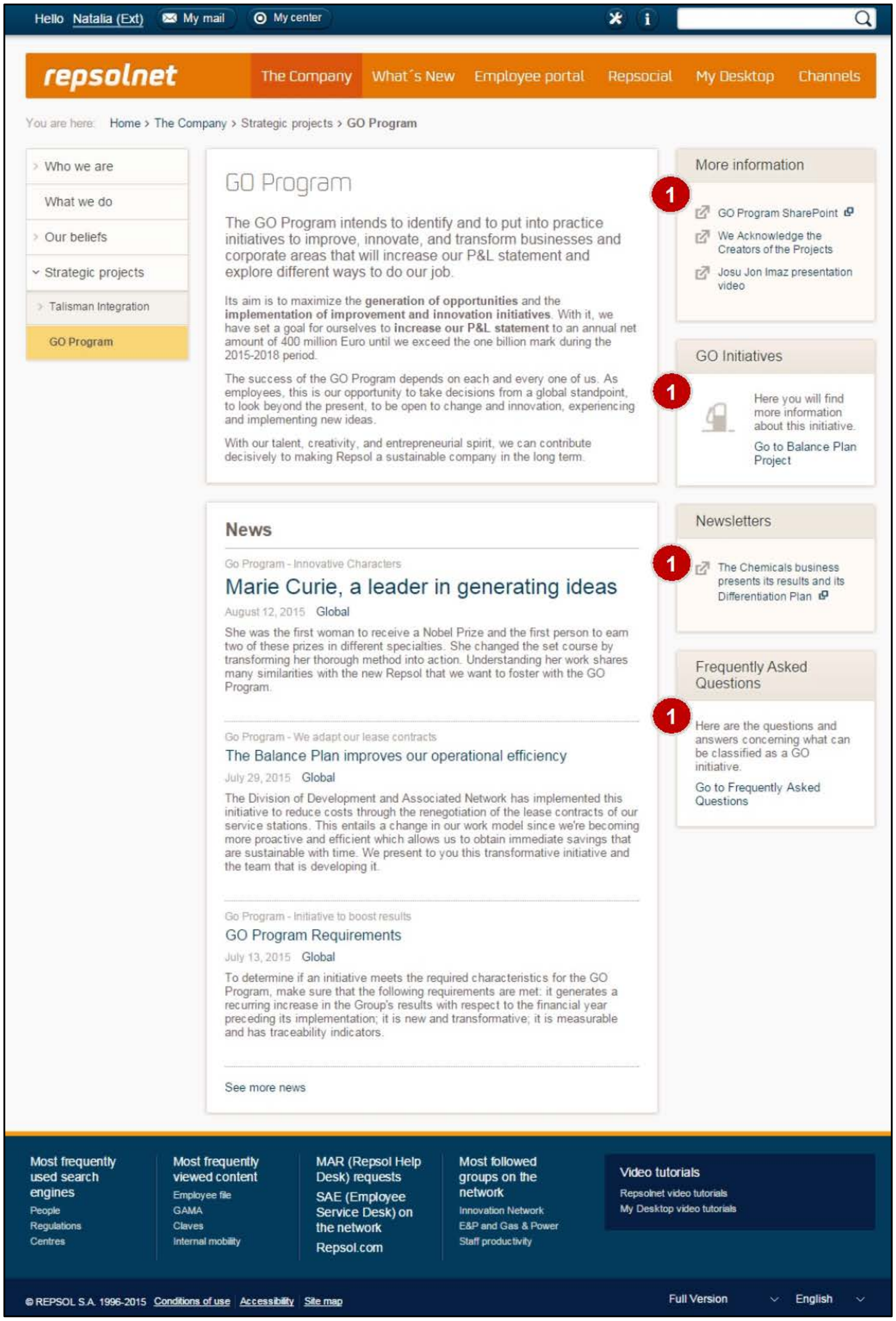


Image 123. Repsol Intranet: Related Content.
123_Repsol_11_Lateral_Components_live.png

Related Content Highlights

1. **Related Links:** News, initiatives, newsletters, and FAQs related to the main content on the page appear in sections in the right rail. Users learn to look here for additional information about the main topic.

Megamenu

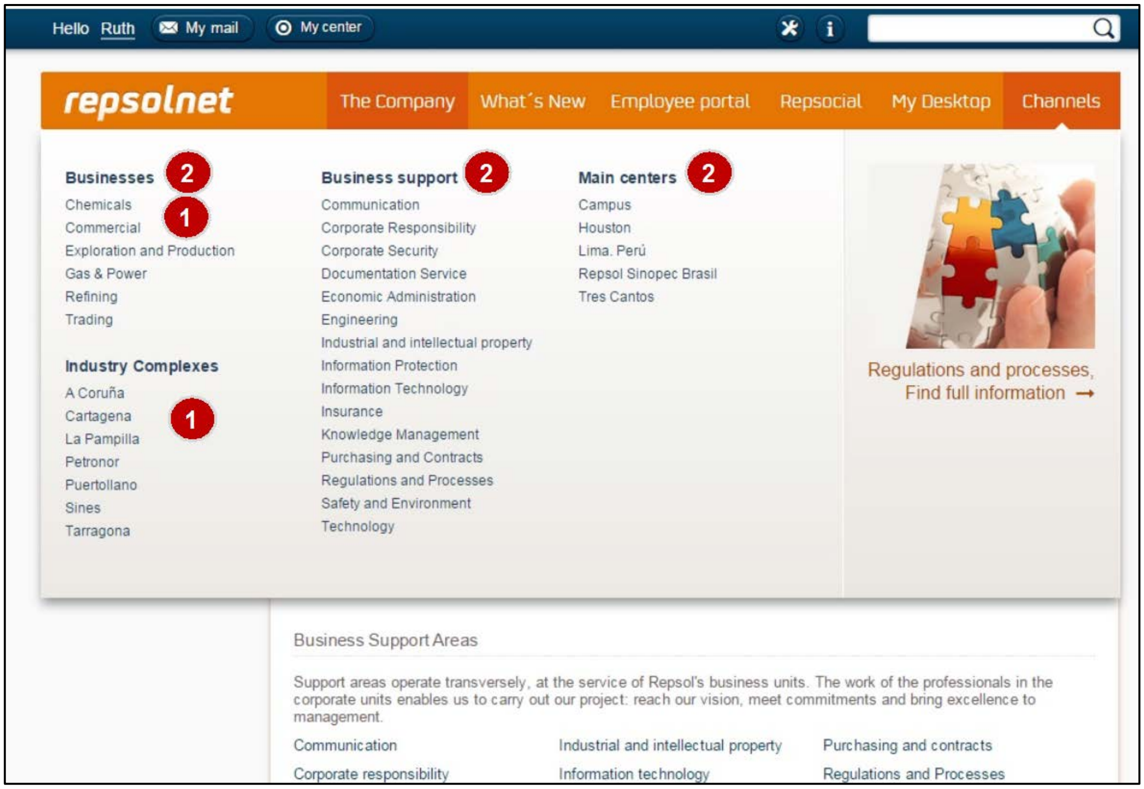


Image 124. Repsol Intranet: Megamenu.
124_Repsol_12_Megamenu_live.png

Megamenu Highlights

1. **Sections:** Typography variations and white space let users easily distinguish the menu hierarchy, as well as which items are headlines and which are links.
2. **Legible Headings:** Darker text on a light background makes it easy to read.

Left-Side Navigation Menu

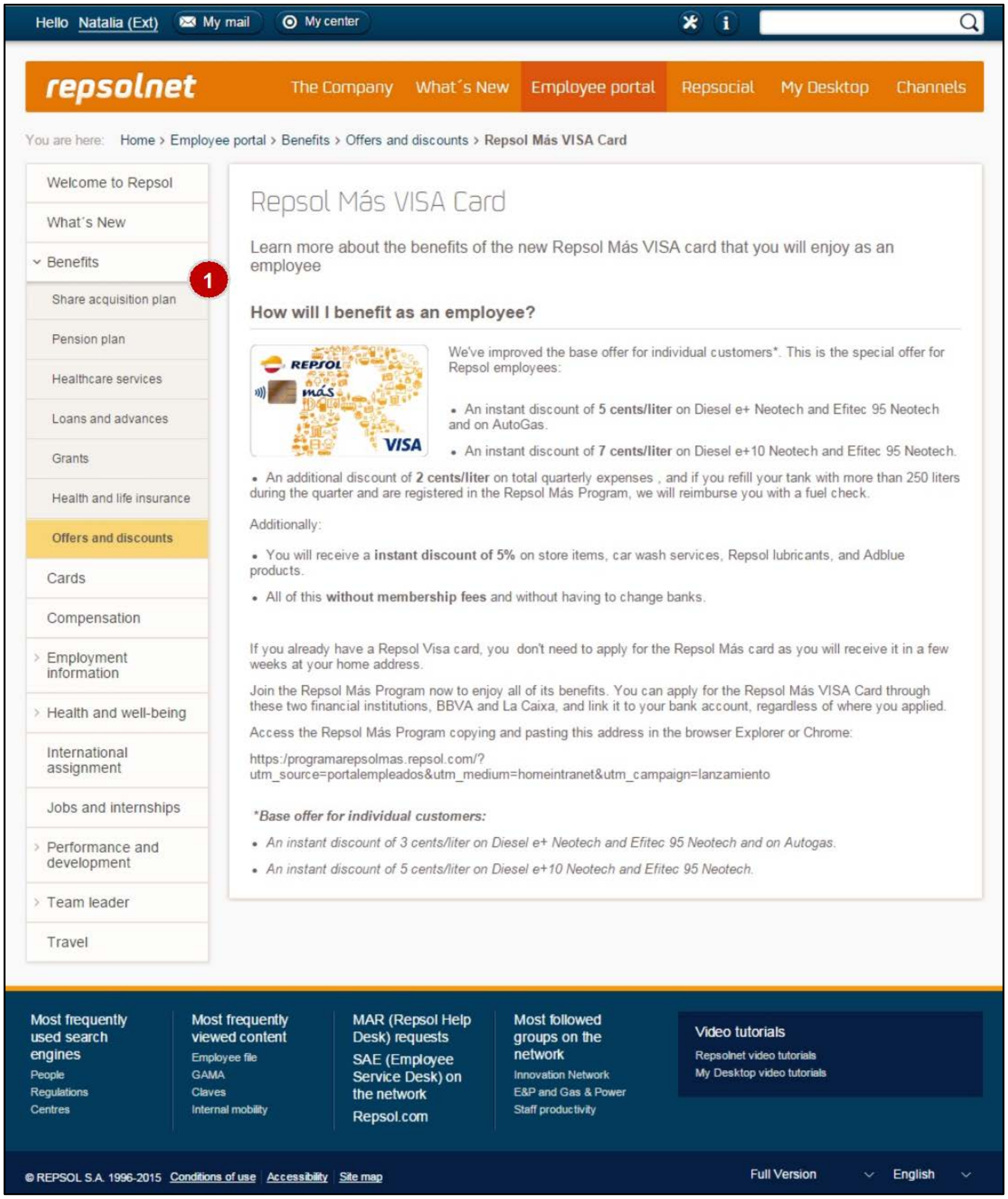


Image 125. Repsol Intranet: Left-Side Navigation Menu.
125_Repsol_13_Navigation_live.png

Left-Side Navigation Menu Highlights

1. **Expand in Place:** Expanded items display the child links as small, indented text on a slighter darker background. These traits make the categories distinguishable from their sublinks.

Accessibility

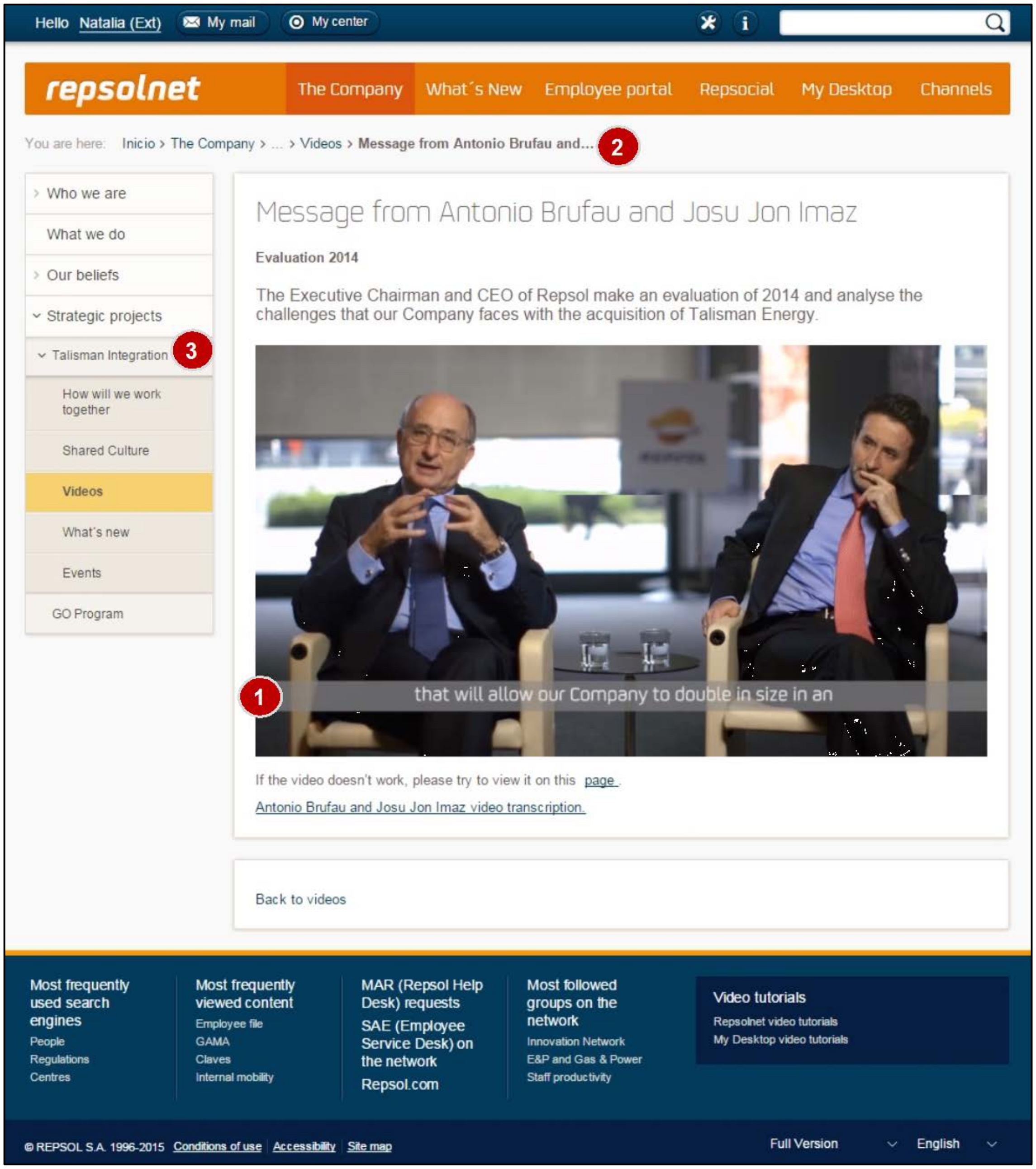


Image 126. Repsol Intranet: Accessibility Features.
126_Repsol_14_Accesibility_live.png

Accessibility Highlights

The team was committed to providing an accessible design that followed the standards outlined in the World Wide Web Consortium's Web Content Accessibility Guidelines (WCAG) 2.0 (for more information, see http://www.w3.org/TR/WCAG20). This meant not just designing the site and UX concept to adhere to these standards, but also having graphics guidelines, developing for accessibility, and ensuring content and design maintenance for accessibility upkeep. It's quite rare that intranets are designed to be easy for people with disabilities; this goal is a refreshing change and addition.

1. **Images and Audio:** In terms of design and development, audio and video components let users load subtitles and transcriptions, and images and banners offer text alternatives. On the content side, editors make it part of their regular process to include these accessibility elements. For example, when a video plays, the subtitles appear in a consistent place. When images are read by screen reader software, each one has a clear description. Videos are accompanied by a link to the transcript of the video, which is also helpful for making video content searchable. Training and manuals for content writers emphasize how to generate alternative text for images and accessible content. For example, writers are taught how to generate accessible tables with titles and summaries, and how to deal with the scope and abbreviations for more complex tables.
2. **Color and Typeface:** The team chose a color scheme and fonts that comply with the contrast ratios established by WCAG 2.0. To stay true to the Repsol branded colors, designers iterated font sizes and color intensity.
3. **Keyboard:** Developers improved keyboard access to all intranet features and content.

Tutorials

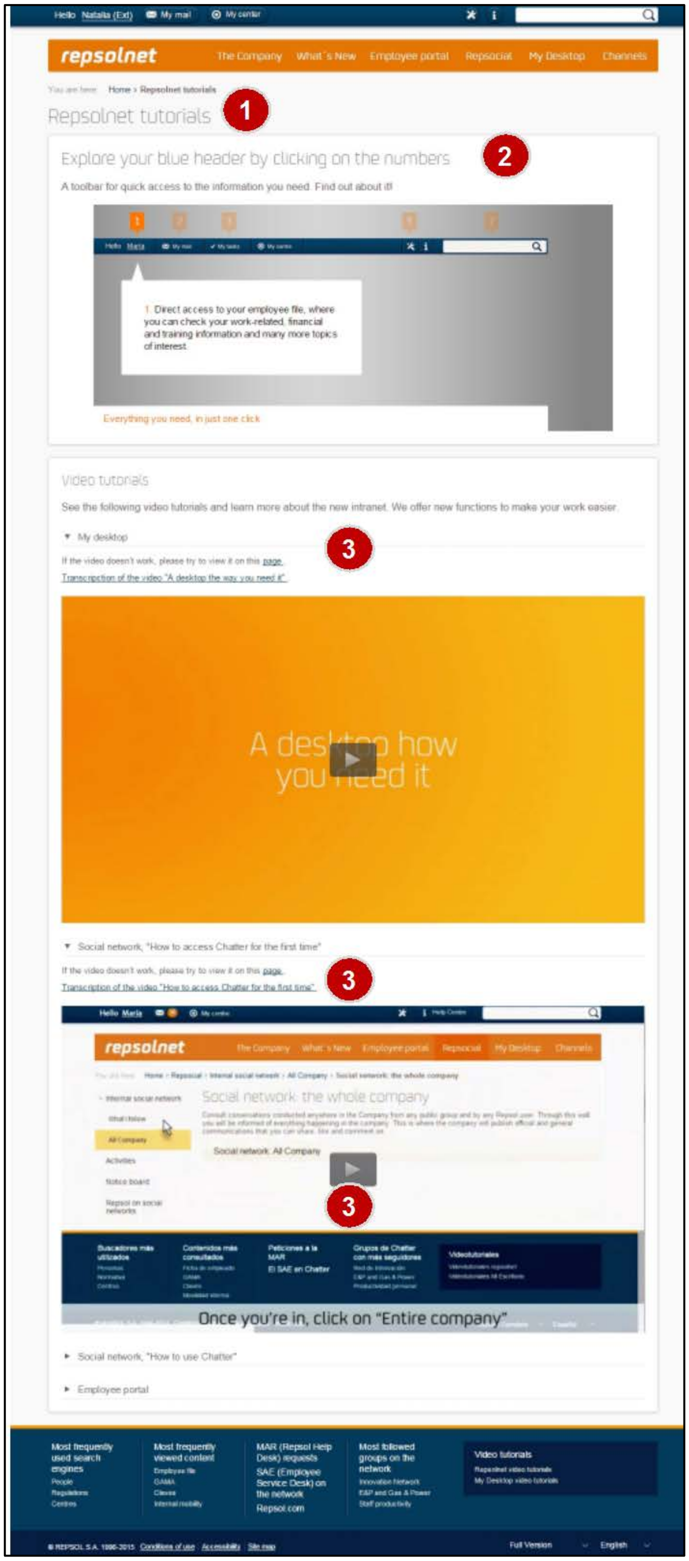


Image 127.
Repsol Intranet: Video Tutorials.
127_Repsol_15_Tutorials_live.png

Tutorials Highlights

When new features are added to Repsolnet, designers give employees a head start by providing helpful video tutorials explaining the feature and how to use it.

1. **Page Header:** The page header, *Repsolnet tutorials*, explains to users where they are in the UI. The breadcrumb is also a nice wayfinding cue.
2. **Showcased Tutorial:** A tutorial for the most important or most recent feature is showcased at the top of the page.
3. **List:** The remaining tutorials appear in a list on the page. The collapsed list shows the feature name. When expanded, the section displays an image of the first frame of the video, accompanied by the play button and a link to the video transcript.

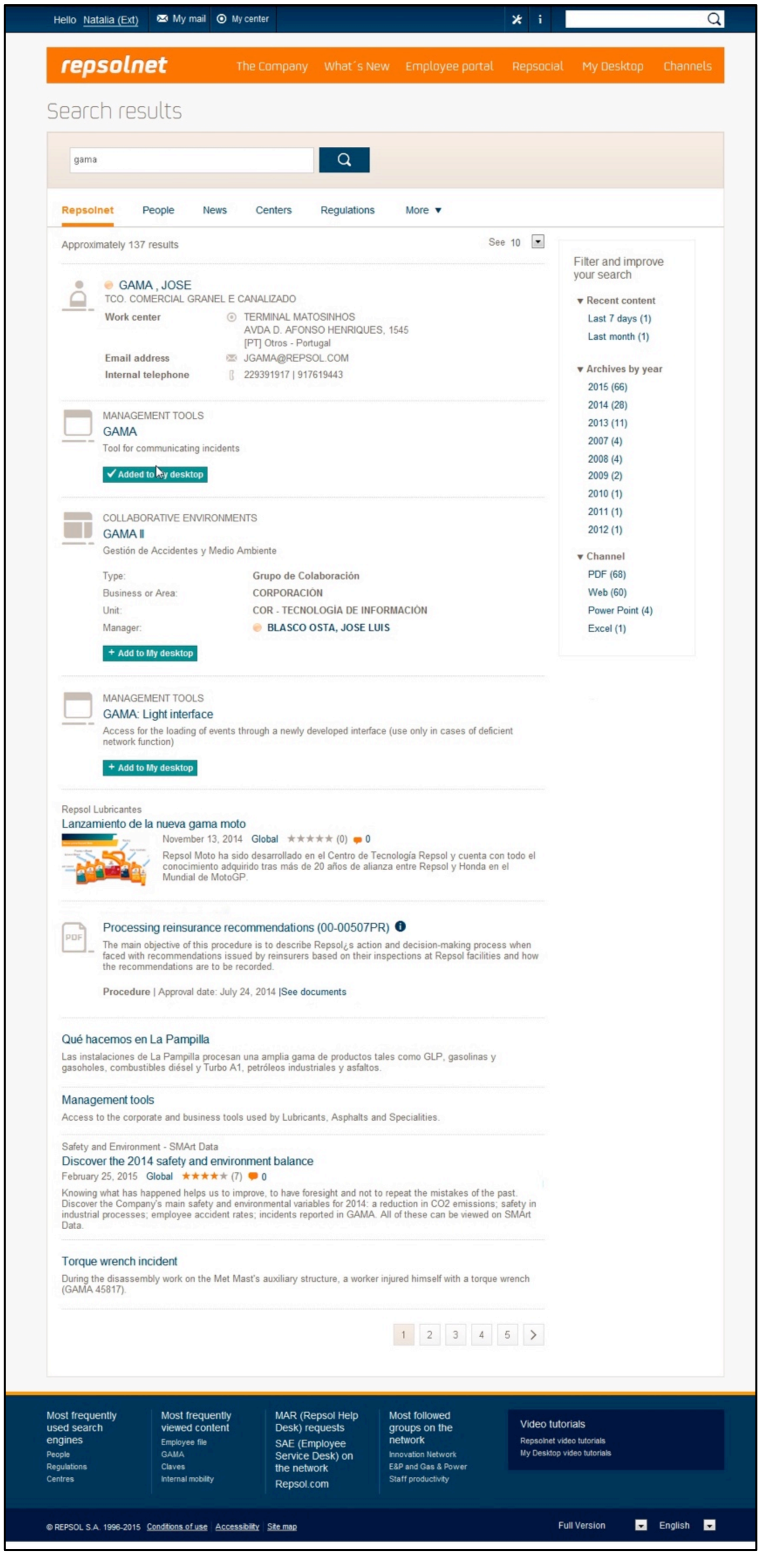


Image 128. Repsol Intranet: Search Results. The updated search feature has been designed in line with the commitment to improve user-friendliness, interaction, simplicity, and response capacity. The display changes depending on the type of content, such as a button for adding shortcuts to *My Desktop*, the click-to-call feature for interacting with colleagues, and the option to rate news items. *128_Repsol_16_Search Results_live.png*

DESIGN PROCESS AND USABILITY WORK

Approach

Before defining the new IA, the user experience, and the overall site design, the team studied usage patterns on the existing site and conducted heuristic evaluations. These steps helped the team determine many of the areas that needed improvement and discover new features that were needed. These initial research efforts, along with the cultural change the organization was experiencing, determined the intranet's key objectives and needs.

After validating the first set of designs, two focus group sessions were held to validate the homepage and *My Desktop*, two of the new intranet's key components.

Focus Groups Lead to New Features

The focus groups gave team members direct interaction with employees, who were asked questions about their experiences and preferences. The focus group sessions let team members assess variables that were more qualitative than quantitative, such as the suitability and quality of the designs, images, and the employee profile format, as well as to verify if these features met intranet users' expectations.

The findings confirmed that the homepage and *My Desktop* contained the tools that employees deemed necessary for their everyday work, and that most design-level decisions were accurate. At the same time, it introduced a reprioritization of features that employees deemed essential. The team made changes based on the findings from this research, including the following two:

- Because each employee arranged *My Desktop* information differently, the team introduced a new feature that lets employees move the blocks on *My Desktop* to suit their needs.
- Employees said they wanted quick access to their center's channel because it contains services they often use. The team thus included channel access in the blue bar.

Wireframing and Prototyping

Once the site map was defined, the team started the wireframe and prototyping phase; once these were validated and approved, they served as guidelines for the design direction for the rest of the intranet.

Then, just before the development phase was set to begin, the team conducted several eyetracking tests. The goal was to see if users — who had no experience on the new Repsolnet — would pay attention to the content the team wanted to emphasize, and to see where the users focused when they didn't find what they were looking for.

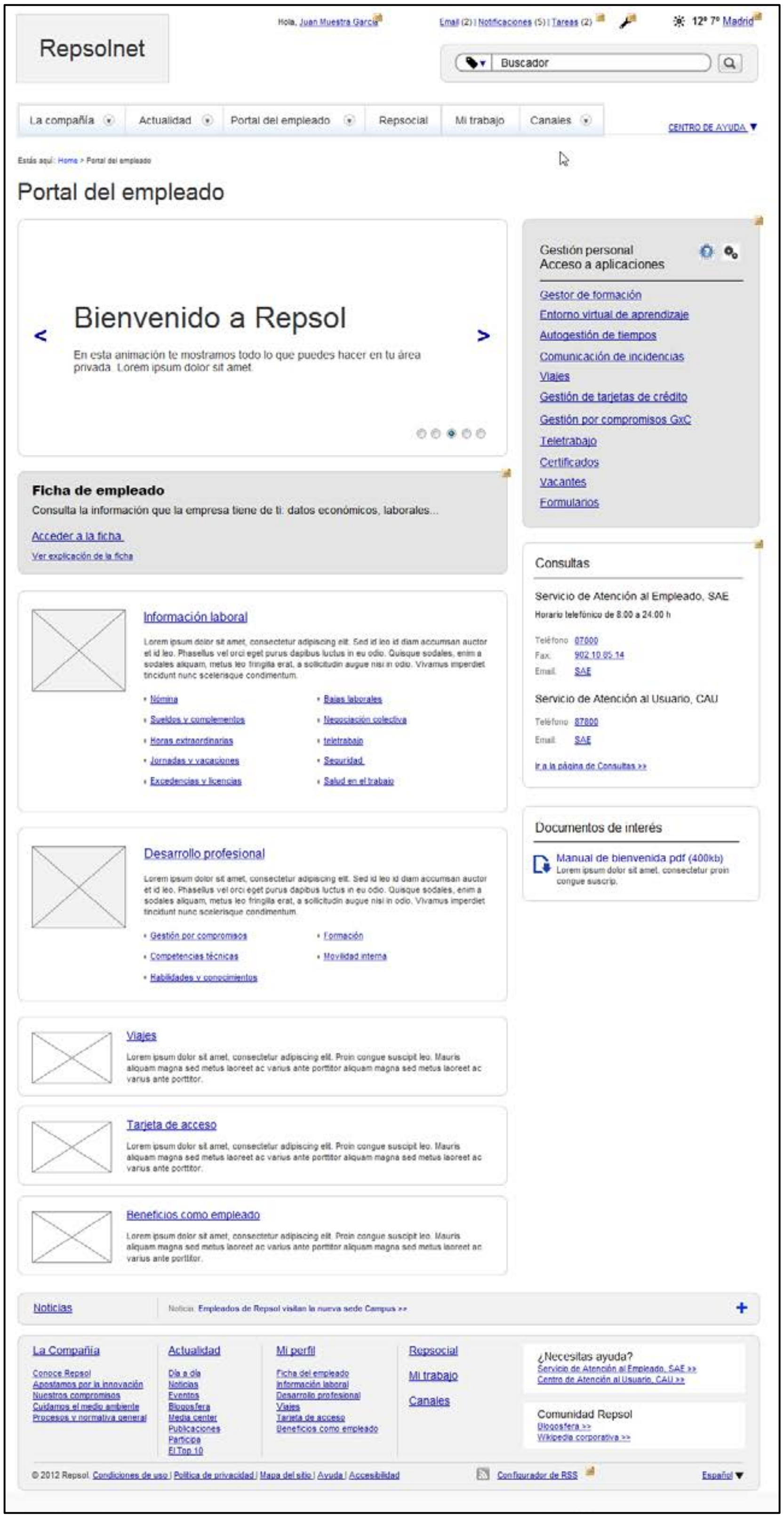


Image 129. Repsol Intranet: Wireframe of Employee Portal. Before initiating the design phase, the Repsol team prototyped various web pages and channels. This is wireframe is a prototype of the employee homepage. *129_Repsol_17_Wireframe_Employee_portal.png*

Information Architecture

The density of the previous intranet's content made navigation difficult, so defining a new IA was critical for the new site's success. To achieve a better IA flow, the existing content was cataloged and two different user tests were carried out using the first draft of the site map:

- **Tree test:** The team used a tree test to determine the extent to which the defined content tree was effective and understood by users. In the tree test, the team checked to see whether all users in all countries understood the names of the sections. For example, in Spain, the word "kiosk" is a shop where you can buy a newspaper, while in Ecuador it is a shop where you can buy antiques.
- **Five-second test** (perception test): This test focused on the most relevant and innovative features. The goal was to see if users could understand what functions could be performed on the target screen. The test was carried out on the following pages: home, news, *My Desktop*, the employee portal, and the public profile. The team showed the design of a page for five seconds. They then asked users three closed-ended questions — such as, "Where it was the news section?" — and one open-ended question that let users explain what they liked and didn't like in the design.

Designing for a Responsive Mobile Approach

During the wireframe phase, the intranet's accessibility from mobile devices was verified so that all information contained in wireframes could be distributed perfectly across the three views (PC, tablet, and smartphone) following the same relocation pattern. Later, designs were generated for each type of page using these three views.

For other companies designing a new intranet, the team recommends trying to simplify the responsive version, using methods such as profiling to account for actions and information employees will need to access from mobile devices. It is very important to focus on the actual needs of employees; when it comes to responsive design, less is more.

Adoption and Buy-In

With a tool as critical as an intranet, changes require change management efforts both to communicate the changes and explain how they affect users. This is especially important in organizations like Repsol, which is comprised of diverse people — in terms of age, culture, capabilities, and geographic location — who have diverse user experiences. A change for one employee might mean a significant improvement and the natural evolution of a task or workflow; the same change for another might create a big challenge if it occurs without an adaptation period or an explanation of the new feature.

In May 2015, four months after the new intranet launched, the Repsol team reached out to site users via a survey to find out how they were doing with the new design. Of all the open-ended responses in which employees described their views, 55% praised the new Repsolnet, 29% proposed improvements, 13% maintained a neutral tone, even the 3% of users who were critical chose to share their opinions. Here are some examples of positive comments users made about the new intranet's features and navigation:

> "The new Repsolnet is much more flexible, dynamic, and interesting. The customized shortcuts are a huge improvement."

> "I think it's a good idea to provide employees with tools that are intuitive and easy to use."

> "It is a more user-friendly page and the top blue band is really helpful as the first thing I see is my email and my center. I used to take too long looking for that information."

> "[The new Repsolnet] is much more accessible and appealing, especially when viewing the news about my work center. The top blue band helps a lot. I now use it as my homepage."

> "The presentation of content has improved and the shortcuts to the employee file and email are really helpful."

The two improvements most requested by employees were for training, to help them take full advantage of what Repsolnet has to offer; and for improvements in the commenting features offered in the news section. Following are some of the comments in which users requested these changes:

> "Comments on the news are separated by language so, if we enter [a comment] in Spanish and a colleague — for example, from Houston — makes a remark, we do not see those comments. It would be nice to combine them regardless of language."

> "When there is a comment on a news story, the 'owner' of the same should receive an alert to respond and encourage two-way communication as much as possible."

> "I would appreciate the possibility of participating in other pages other than the news."

> "I think we need greater change management in order to show employees how to use the new features. This will, in turn, encourage its use. For example, practical half-hour sessions with video training on how to use the features can take place in the common rooms."

These comments reflect the reality that significant changes require significant support. Video tutorials explaining the new features are not enough for some employees; training sessions are necessary, preferably in person. Many of the requests the intranet team received from the employees are already being applied and other requests are in progress.

<table>
<tr><th colspan="2">WORKING WITH OUTSIDE AGENCIES</th></tr>
<tr><th>Agency</th><th>Project Role</th></tr>
<tr><td>Adesis
A strategic consultancy</td><td>In the new intranet’s conceptualization phase, Adesis:
Defined IA
Defined the user experience and created prototypes
Conducted user tests
Conducted design activities:
Defined the graphic line
Created design concepts
Prepared the Repsolnet style guide</td></tr>
<tr><td>Arista
A communications agency</td><td>Participated in various activities in various project phases, including the following:
Content transition phase
Reviewed content on old intranet to migrate to the new CMS
Performed all actions necessary to successfully migrate content to the new environment and identified obsolete content, text that required modification for accessibility reasons, inappropriate images, and so on
Acceptance test phase
Ensured that the new environment was developed and implemented as defined in the functional and design documents
Migration phase
Moved all content to the new environment</td></tr>
</table>

Vass and Adesis agencies Solution development and implementation	Apart from the usual tasks of solution development and implementation, the agencies positively contributed to both project execution and subsequent maintenance in the following ways: • Set up automations that ensure stability in the steps between environments and maximize availability times • Developed a detailed definition of the functional tests and comprehensively monitored the life cycle of the detected incidents. These have now been corrected. • Provided live support for Repsolnet publishers to answer questions or offer alternative ways to obtain the desired results • Conducted comprehensive knowledge transfer to the operation and maintenance teams

GOVERNANCE

At Repsol, Internal Communications owns the intranet, with several people dedicated to its management and governance. The table below details their roles and responsibilities.

The governance model is mixed; the management of some services is centralized in Internal Communications, while management of services is decentralized among people from different company areas:

- **The centralization approach** is based on service management under one owner, where knowledge and certain powers are focused on a particular area.
- **The decentralization approach** is based on distributing management of certain services among several owners to encourage participation in all areas or business units and to help accelerate the dynamics of publications and social spaces.

Centralized services are performed by the department responsible for the intranet, those responsible for the homepage, and those who are responsible for providing business support to their assigned business areas (content owners).

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Intranet Management Team	• Establish the governance and norms of Repsolnet • Promote and verify its compliance • Provide the necessary training to the various stakeholders involved in managing the intranet • Strategize, plan, and improve the intranet • Manage social spaces and collaboration elements • Develop and oversee an intranet metric strategy • Manage intranet incidents • Manage the editorial team • Monitor decentralized services
Homepage Content Management Team	• Strategize about and maintain the homepage
Content Owner	• Manage and update channel content • Contribute to the social spaces of the channel, the vertical, or the section • Analyze and propose improvements according to quality guidelines and metrics • Monitor decentralized services to update channel content based on training and Repsolnet criteria
Editorial Committee	This team is composed of different members from Internal Communications: the intranet management team, the manager of social space services, and the homepage content management team. It has the power and authority to carry out the following responsibilities: • Validate all content of the vertical and its sections that is proposed for intranet publication • Mediate and evaluate actions in cases requiring intervention due to a communication crisis on the intranet or when supervision is required to

	monitor content that requires arbitration
IT Maintenance Team	• Sustain and support the overall solution • Implement corrections and enhancements to the solution • Provide employees with technical support • Provide technical support for requests that cannot be managed through an editorial solution
Editors	• Provide help and editorial support to content owners before they publish • Publish content • Request translation of content via workflow

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://repsolnet/
Default Status	• Repsolnet is set as the homepage in all users' browsers (Internet Explorer and Google Chrome); users cannot change this configuration.
Remote Access	• When users are not connected through the Repsol network, they can connect (if they have a Repsol-issued device) using a VPN that is installed on every device. There is also a large group of users who can access the Repsol network through Citrix. When these users open a browser window, the page they access is Repsolnet. • Remote access is a constant in business groups that often travel; it is also used frequently among groups of people who occasionally work outside Repsol offices, for telecommuting, and for other specific needs of users outside an office.

Shared Workstations or Kiosks	Due to the diversity of Repsol businesses, different types of employees work in the field: • **Salespeople** are constantly traveling and have a tablet with a resolution of more than 1,024px from which they can access Repsolnet through remote platforms (VPN, Citrix, and so on). • **Factory kiosks:** At Repsol factories and refineries, kiosks — called *IAPs* (information access points) — are collective mega-computers adapted to the working conditions. The kiosks have been designed so that employees who do not use a computer for their particular role can access Repsolnet and perform the same actions as any other employee with a computer. At these industrial centers, there may also be other shared devices that serve functions similar to IAPs. • **Shared computers:** At other remote work locations, such as offshore platforms, employees have access from shared computers and can use the light version of Repsolnet if they do not have a broadband connection.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
1996	• **First company intranet:** service directory
1997	• Search engine introduced
1999	• Intranet renamed *Repsolnet*; news added to the content offerings
2001	• Redesign to focus on employees
2006	• Redesign and added channels and *My Repsolnet*
March 29, 2009	• Launch of a new Repsolnet (previous version)
March 2013	• A functional approach, design conceptualization (wireframes and style guides), and web map approved for the site redesign project

April 2013	• Project approval from Repsol's senior management
May 2013–December 2013	• **Prototype:** Technology evaluation and functional definition (IT perspective) • SHP vs. SDL Tridion • First development architecture defined • Performance analysis • Focus group
January 2014–March 2014	• Functional definition review and adjustment • Final development architecture and performance analysis
March 2014–August 2014	• **Transition plan:** Content revision of the old intranet
April 2014–November 2014	Development and testing in four major releases, with upgrades to correct defects or include small new functionalities: • **August:** general content • **September:** search engine and *My Desktop* • **October:** news, events, and first set of small components • **November:** surveys functionality and the remaining small components
September 2014–November 2014	• Content upload and testing with final content (search engine adjustments)
December 2014	• **Family & Friends testing:** more than 500 employees were included and offered more than 100 suggestions; errors were reported and corrected
January 2015	• New Repsolnet launched

CONTENT AND CONTENT CONTRIBUTORS

Management

Repsolnet's content management varies depending on the type of content and the intended audience.

- **General content:** this content includes company news and events that concerns all employees.
- **Section or local content:** each section has a content owner who is responsible for delivering and reviewing each piece of content in his or her section. Approximately 40 content owners belong to different departments across the organization.

Editorial meetings are held to review all the day's news items and decide which could be considered general content.

Contributors

The intranet team serves as a governing board for all groups and individuals involved with Repsolnet, providing publishing training, best practices information, and tips on topics such as accessibility, making content search friendly, and using analytics and user feedback to improve pages.

Approximately 10 people have access to edit and contribute content in the CMS (Tridion 11), guided by criteria defined by the Intranet Management team.

Training

Initial training for editors consisted of a three-day training program; content owners were given a one-day training. The following list shows the range of manuals and guidelines available to support editors and content owners in their work:

- **Group intranet concept book:** This document illustrates and explains the philosophy behind the intranet and the rationale for its design and functionality. It is the principle guide to help content owners and editors effectively use components and page elements.
- **Channels framework:** This guide explains the basic structure of an intranet channel. A hierarchical browsing structure has been defined for all intranet channels according to the objectives and minimum content required.
- **Graphics guideline:** This guide defines the color palette, typography, photography style, and other graphical elements that are required to build a seamless user experience in the internal digital channels.
- **Editorial style guide:** This guide is aimed at achieving excellence in the Repsolnet text. It's a guide for applying common criteria to internal communication materials that each writer must internalize and apply to all news and articles.
- **Maintenance guide:** This guide helps content editors with all technical issues of the CMS program.

Maintaining Quality

The intranet governance committee meets regularly to review both technical and stylistic issues related to maintaining site effectiveness and accessibility.

Reviewing is another safeguard that ensures that content conforms to the established style and architecture guidelines. Before a new section is created, it goes through an IA and metrics review led by the intranet team.

To ensure that the available information is always up-to-date, a notification system was designed to configure an alert date on each page. The editorial team receives an email reminder to validate the content with the designated content owner.

Employees can also contribute content to Repsolnet in a variety of ways by posting to *Chatter*, creating public links in their employee profile, or commenting on published content, such as news or events.

Culling Content

To reduce the number of pages on the site, the intranet team carried out several tasks during the redesign. First, before tackling migration, all pages were subject to an in-depth content review; the goal was to update or eliminate all obsolete content.

Also, while migrating pages to the new Repsolnet, effort was focused on efficiently grouping the content and reducing the number of navigation levels to minimize the clicks required for users to access the information they were looking for. This, in turn, also reduced the total number of pages on Repsolnet. The process was undertaken with an eye on IA, as well as from a design perspective, taking into account the new Repsolnet components — side components, drop-down paragraphs, related content, and so on — that would allow a single page to contain all the information that was previously distributed over several pages.

Furthermore, the significant reduction in pages on the new Repsolnet was made possible through the efficient use of profiling to customize content. Because of this feature, individual employees can now view, on a single page or menu, only the content that is relevant to them, according to their job position and the country in which they live. For instance, employment information applicable to employees depends both on the country they live in and the Repsol company to which they belong; while the previous Repsolnet used a page for each country–company combination, a single page now includes all employment information and content that applies to each employee.

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• Four virtual machines with four cores and 32 GB RAM • Windows Server 2008 R2 Enterprise SP1
Bug Tracking/Quality Assurance	• HP Quality Center for testing before entry into production • Remedy for incident management and improvements after the entry into production
Design Tools	• XMind to define the IA • Axure to define the user experience and create prototypes • Photoshop for creating graphics
Site Building Tools	• Visual Studio 2013 with TFS
Content Management Tools	• SDL Tridion 11
Search	• HP Autonomy
Other Functions	• Social aspects (commenting, rating, *My Desktop*): .Net development • Site analytics: Digital Analytics

Technology Evaluation

The technological platform required to support the new intranet's content management needs was considered as part of the technology definition and conceptualization process that took place prior to implementing the new Repsolnet. During that process, two approaches were evaluated:

- Use a **SharePoint** platform, which would provide both content management and the ability to reuse its standard features.
- Continue with a platform primarily focused on content management (**Tridion**) and add the required features to it.

Repsol had experience with both platforms. Its knowledge management processes are supported on the SharePoint platform, and both its extranet and the previous intranet used SDL Tridion as a CMS, supplemented with .NET developments.

The main advantages of SharePoint were its integration capabilities with the knowledge management platform and its standard features, while Tridion's strengths were its capacity as a CMS, especially in offering component reuse and guaranteeing identical behavior in the three language versions. Given these capabilities, SharePoint had the advantage.

The team launched a more comprehensive study of both platforms to analyze their coverage of the requirements, paying special attention to content personalization and the ability to provide a private space for each employee.

The personalization requirements included the ability to outline the content to suit various users, work functions, and location-related dimensions, including

- Managers
- Staff with management objectives
- Collective-agreement staff
- Expatriated staff
- Facility
- Province
- Country
- Repsol company to which the employee belongs
- Management center
- Organizational unit

In this case, with more than 1,000 locations, 200 companies, 600 management centers, and 1,000 organizational units in 200 provinces and 40 countries, a wide range of different customization possibilities were needed. Thus, the standard SharePoint functionality (audiences) had to be customized with a special configuration that would come with great complexity and cost.

It was decided that Repsolnet would offer a completely customizable workspace for each employee. However, Repsol employees have very heterogeneous computer skills, so the team needed to restrict the actions users could perform in the workspace to minimize the number of incidents caused by improper use.

When analyzing SharePoint's *My Site* product, it was discovered that it would require many custom developments to adapt it to Repsolnet requirements. Furthermore, those developments would modify *My Site* in its essential aspects. Thus, to meet requirements, Tridion was ultimately chosen as the platform because its development was more cost efficient than that of SharePoint.

Using the Tridion platform has proven key in the following areas:

- Defining a common way to work by establishing technical restrictions that guarantee the governance criteria is met to ensure consistency, usability, and the user experience; for example, super features can be used only in the homepage template.

- Ensuring the existence of a single intranet available in three language versions.
- Using the same content with different views and being able to reuse content in different pages.

RESULTS AND ROI

Increased Usage

The Repsol intranet team tracks many metrics. With the launch of the new site, a survey model lets users rate overall site performance as well as provide specific comments.

A comparison of the indicators from the first half of 2014 to those of 2015 reveals that a greater number of users access the intranet each day, with more page views per access and a shorter stay each time they access. This implies time and productivity improvements, and thus cost savings.

Statistics show that the time employees spend on Repsolnet is now more productive. They view more pages in less time during each visit.

Indicator	First semester 2014 (old intranet)	First semester 2015 (new intranet)
Time per visit	5 min 26 sec	3 min 48 sec
Page views per visit	7.61	10.40

Six months after its launch, more than 16 million pages have been visited — 25% more than in the year before. All countries have increased their level of access; data shows that approximately 12,000 users access Repsolnet every day.

Increased User Satisfaction

Four months after launch, employees participated in a survey about the new intranet. Comments from this survey provided evidence of a generally positive view of Repsolnet's evolution and also identified some areas for improvement.

While survey results reveal that users are happy with the new intranet, perhaps a more important measure than satisfaction is an increase in usage. Employees are visiting the site and using it more than the previous Repsolnet.

One aspect mentioned the most in the survey is the ability to comment on news as a way to share knowledge and improve multi-directional communication. The following comment exemplifies what users are saying about this feature:

> "This ability to comment on news and posts shows us that our opinions are valued and listened to."

The design of and space reserved for the latest news about the company and its businesses was also greatly appreciated by users:

> "The main improvement is that it's helped me to improve in my work, as I know the company better and it adds value to my work."

> "I've changed position, and I can find a lot of the information I don't know about the new business on Repsolnet."

Repsolnet is also now perceived as a real tool for work, not as a homepage they are forced to use. One of the results that best highlights the increase in employee productivity, thanks to Repsolnet, is its use as a hub for other work tools (applications, collaboration environments, templates, and so on). For example, during the first six months of 2014, only 40.86% of employees used the old Repsolnet to access the tools required to carry out their daily tasks. With the new intranet, this figure has more than doubled to include almost all users: 97.86% of employees that visited the new Repsolnet during the first half of 2015 have, at some point, used the shortcuts to their work tools.

These results are, in fact, supported by many of the comments generated from the survey, including the following:

> "Being able to access the pages I use most from my desktop makes things easier, as I don't have to try to remember how to get to each of them."

> "I think that the option of creating my own shortcuts is very useful to locate the content that is the most interesting for me. The accessibility to my employee file also seems very useful."

> "Being able to organize all the management tools and applications that I use on *My Desktop* means that I can access them directly without having to search for them on the intranet."

In the first few months, the positive response to the company's new social network was also clear, as the following numbers illustrate:

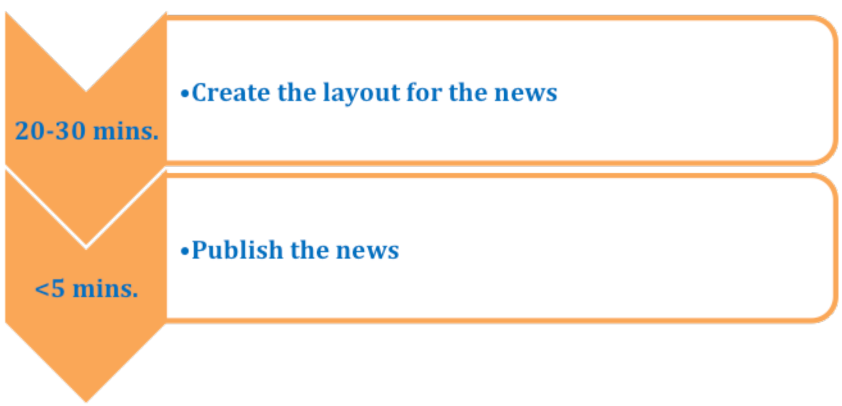
Metric	Before Intranet Launched	Four Months Later
Number of active users	2.728	10.236
Number of public groups	69	169
Number of private groups	78	178

Cost Savings

The team considers the cost savings achieved with Repsolnet to be significant, both from a management and an operational perspective.

The process for publishing topical content (news, events, and articles) has been automated. Publication process steps that were previously done manually are now automated, achieving an average reduction in the time spent of more than 50% and resulting in cost savings.

On the previous intranet, the process for publishing a news item required several steps and took <50–70 minutes.



The news publication process on the current Repsolnet takes <25–35 minutes.

To understand the real impact of this time reduction, it helps to consider that approximately 720 news items are published each year on Repsolnet, and approximately 3,500 requests to update other types of content are made.

At the technical maintenance level, as mentioned earlier, reducing the versions and optimizing content resulted in fewer pages, which has also helped Repsol reduce costs and improve operating efficiency in many ways, including:

- Less storage on hard drives (both the content and the backup copies)
- Less time spent on backup processes and optimization of system monitoring; in fact, it is projected that the maintenance team needed to support the site will be reduced next year by 10%

The Repsolnet team will continue to gauge intranet usage by monitoring interaction with content, conducting surveys, and collecting employee feedback.

Finally, it is important to note that Repsolnet is built on a very solid foundation that allows for growth at no additional cost and incorporates new trends, new company needs, and employee feedback every year.

LESSONS LEARNED

Members of the Repsol team say they have learned a lot throughout the redesign process, including the following key lessons:

- **Create a team that shares the same goals.** "Regardless of which departments the team's members are from, a team comprised of members with the same goals has the ability to make decisions and assume responsibilities. The Repsolnet team was formed with people from the IT and Internal Communication departments. Furthermore, short and frequent meetings were held with the Strategy and Management Committee that promoted the overall follow-up of the project."
- **Define a set of success criteria at the beginning of the project.** "This will ensure you are able to verify compliance regularly, and these criteria will serve as a reference point in the decision-making process. For Repsolnet, 25 indicators were defined based on different variables (collaborative, user-focused, corporative, operational, sustainable and safe, and measurable)."
- **Develop a content manual.** "The manual should contain instructions for use and the criteria to be followed at time of content creation. This manual is the basis for training those who will use the content management system, both from a technical and a communications point of view."
- **Get support from someone who knows the platform and the project well.** "During the content loading period, this support will help the team to clarify potential risks or concerns as soon as possible and provide a boost to the content creation process."
- **Establish a good change management process** prior to launching.
- **Make search a priority.** "Even though it was important to make browsing the intranet easy and intuitive, our studies and analyses have shown that users first search and then browse. This is why we have increased our efforts to develop a precise search engine that, through different filters, refines searches and content types, as well as creating shortcuts from the search results, making users' work easier."

- **A good team is a result of the sum of its parts.** "To develop an intranet, it is important to have a team that includes experts in IT and in communication. Sometimes, ideas that seem impossible arise and technicians can later make them a reality. Other times, new ways of communicating are what modify or adapt IT tools."
- **Never stop asking questions.** "During the execution of this project, we have not stopped asking questions to our colleagues from IT, those from communication, to content owners, to experts in different fields outside our company, and, especially, to users. In order to gather needs and look for solutions, it is important to ask those who know."
- **Be ready to rethink what you're doing**. "At some stage in the process, it is important to be prepared to stop and rethink. Sometimes, due to the execution of the project itself, new needs arise, and we should not hesitate to stop and refocus on the work. Results show that this is the most successful attitude."

Salini Impregilo SpA

OVERVIEW

COMPANY

Salini Impregilo is a global player in the construction sector and the leading international infrastructure company in the water segment. With more than 30,000 employees, the Group has been involved in the construction of dams and hydroelectric plants, hydraulic works, railways and metro systems, airports and motorways, and civil and industrial buildings for 110 years.

Headquarters: Milan and Rome, Italy

Company locations: Salini Impregilo has offices on five continents and operates in 50 countries across the globe, including the US, Europe, South America, Africa, Asia, and Oceania.

Locations where the intranet is used: In every location, both in offices and at worksites.

Annual sales: A backlog of approx. €33 billion in 2015 and a turnover of approx. € 4.2 billion.

THE INTRANET

Users: Approximately 1,800 employees from the Rome and Milan headquarters and nearly 1,000 employees from worksites around the world. The goal is to eventually include most key employees all over the world, though it is not possible to grant access to all employees (more than 30,000) as some work directly on worksites.

The user base is very diverse, with 80 nationalities accessing the site from different time zones and locations, including offices, construction sites, and isolated areas including deserts and forests. The users comprise different lifestyles, jobs, and work experiences (managers, secretaries, engineers, architects, workers, administration or ICT clerks, lawyers, and so on). Their intranet needs also differ. Workers and engineers might need to find information about projects similar to theirs (or to post a technical question to colleagues in other parts of the world), while managers might need to find organizational procedures and read the daily press release, and IT employees might need the latest company app manual.

Mobile approach: Responsive web design

Technology Platform: SharePoint 2013

TEAM

Design team: Approximately 12 internal and external people designed the front end (or took part in the approval process), developing the IA, the content map and workflows, governance, graphic design, and user experience. A software development team of eight internal developers and an external agency did the back-end development and architecture. Another group of 30 people were involved in design and development as contributors or testers, providing ideas, opinions, and optimization suggestions.

The company also partnered with Inarea Strategic Design to assist with many aspects of the development and rollout of the new intranet.

Leadership: Luigi Vianello, Corporate Identity & Communication Director; Emanuela Angori, Head of Corporate & Internal Communication

Design (creative services): Lisa Loianno, Head of Digital Communication; Michele Calì, Expert, Corporate & Internal Communication; Elisa Maiucci, Assistant, Corporate Identity & Communication; Maria Cristina Storti, Assistant, Corporate Identity & Communication; Simona Battistella, Senior Communication Consultant (Inarea Strategic Design Agency); Elena Dalla Massara, Senior Communication Project Manager (Inarea Strategic Design Agency); Annalaura Ruffolo, Usability Specialist (Inarea Strategic Design Agency); Silvia Santoni, Content Manager (Inarea Strategic Design Agency); Serena Prudenzano, Community Manager (Inarea Strategic Design Agency); Emanuele Partemi, Graphic Design (Inarea Strategic Design Agency); Laurence Steinman, English Translator (Inarea Strategic Design Agency)

Development: Giuliano Baioccato, Program Manager Corporate Infrastructures, ICT Department; Elisabetta Colombo, Information Security Manager, ICT Department; Gianluca Farag, Data Center Manager, ICT Department; Raffaele Catapano, Customer Services Manager, ICT Department; Daniele Bruni, SharePoint Expert and Senior Software Manager (Inarea Strategic Design Agency); Pietro Di Costanzo, Software Architect (Inarea Strategic Design Agency); Anna Grifoni, Software Developer (Inarea Strategic Design Agency); Michele Mearini, Technical Manager (Inarea Strategic Design Agency)

Human Resources: Marco Ferrara, HR Operations and Industrial Relations Director; Anna Giovanetti, Organization and Reporting Manager; Antonio Garganese, Expert, Organization and Reporting; Erika Federico, Head of Change and Development; Alessandro Tiberi, Expert, Employer Branding

INTRANET TEAM

Team members shown here (top row, left to right): Lisa Loianno, Emanuela Angori, Michele Calì (above sign), Maria Cristina Storti, and Elena Dalla Massara; (bottom row, left to right): Sara Moretto, Serena Prudenzano, and Elisa Maiucci.

HIGHLIGHTS ABOUT THIS WINNER

- **Merger of Two Companies:** After Salini and Impregilo joined to make Salini Impregilo Group, the intranet team was tasked with facilitating the integration of the two different organizations and their employees, who were located in 50 countries. The solution, @work, greatly supports both the new and unique corporate culture and individual employees.
- **Homepage:** The homepage includes several features that unify employees from the merged organizations. A combination of messages from management, news, social, and project information help achieve this goal and keep all employees updated about the events, news, and successes of the Group all around the world.
- **Project Information:** The global presence map and related pages showcase, advertise, and make findable a multitude of details, images, and video about each construction project, which is the heart of the Salini Impregilo Group's work.

- **Responsive Design:** Employees with a wide variety of jobs — from engineers and architects to clerks and lawyers — might be located in offices or in extreme locations such as the desert or the bush. These employees can access their intranet, whether they are on the subway or riding in a jeep in the wild.
- **Rich News:** The *For information* section of @work keeps employees abreast of all important company news by compiling internal news, messages from the CEO, press releases, media mentions, interviews, and publications.
- **Varied Social Tools:** The *We@SaliniImpregilo* menu leads to four major social sections, including: employee selfies, a discussion forum, a corporate vocabulary wiki, and contests to stimulate creativity.

BACKGROUND

In January 2014, the Salini Impregilo Group was born from the merger of two companies: Salini and Impregilo. The two companies had two different intranets, and both were used primarily as document repositories. Neither had a strong or consistent corporate or internal communications approach. Moreover, the graphic design for both intranets was outdated, usability needed improvement, and it lacked social functions and functions to support strategic project information sharing.

After the merger, the Corporate Identity and Communication Department proposed the development of a new, single Salini Impregilo intranet, which would, as a first phase, help with the integration process of the two companies. Then, in the subsequent phase, the intranet would focus on helping employees keep up-to-date on Group activities, events, and news.

Goals

The new intranet was created to achieve the following goals:

- **Be an important integration tool:** Create a unique corporate culture and unify the behaviors of people from two different organizations and company cultures.
- **Support the change management process:** Make the sharing of the new corporate culture and processes easier.
- **Be a proactive tool to activate employees advocacy:** Support brand equity at an international level.
- **Be the main connection tool for employees:** Support employees working in locations around the world, doing different types of work, including work in extreme locations (deserts, forests, and so on). The intranet was intended to give employees a virtual 24/7 office, useful information, and working tools.
- **Activate a bidirectional communication stream:** Encourage a pro-active attitude and the circulation of shared know-how in a bottom-up process.
- **Promote employee participation in producing and updating content:** This content would include documents, project profiles, communities, and so on.

Approach

The intranet team needed to launch the new intranet quickly so that it could initially serve as a support tool for employees during the merger. This meant the team had to undertake a very pragmatic two-phase approach to its work. Team members referred to it as a "r-Evolution" in terms of corporate culture and engagement tools, and the phases were as follows:

- **Phase 1:** This phase launched in July 2014 with the Italian version of the site. It was released to 800 employees at the company's headquarters in Rome and Milan. It contained corporate information, a document repository, apps and HR services, and an interactive address book. During this phase, the team engaged a group of 30 people who participated as contributors or testers and provided ideas, opinions, and optimization suggestions. These ideas and opinions helped the team optimize the first release.
- **Phase 2:** The second phase launched in December 2014 with the English version, and provided access for approximately 1,800 employees from the company's headquarters and from Group work sites all over the world. This release included social functions and professional communities.

Challenges

Creating an intranet from two different companies is never easy. Creating an intranet to support a newly merged company adds a layer of complexity to an already complex project. The Salini Impregilo team overcame many important challenges to create the award-winning intranet featured in this case study, including:

- **Limited timeline:** In January 2014, the new Salini Impregilo Group was born. On March 3, 2014, the new Intranet Program began; by June 1st the new intranet was scheduled to launch. This short time frame was extremely challenging. The intranet team had to execute on a process that normally requires at least five to six months to complete. Moreover, the project took place during a challenging period of changes (new organizational charts, processes, and so on).

  Although many things were in flux, the intranet team viewed this as an opportunity to use the new tool to help facilitate some of the changes that were happening simultaneously. "It was clear to us that we needed to launch a strong message of integration and Group cohesion to employees of two different companies, who had been in competition just a few months before," says Emanuela Angori, Head of Corporate & Internal Communication. "The intranet was a perfect tool to create cohesion and networking." For this reason, the top management asked the team to speed up the development process and put the new intranet online by June 2014.

- **An ongoing integration process:** Because the company was newly created and everything was still in progress (including department organizational charts, people allocation, and corporate strategic guidelines), the analysis phase of the intranet design process required more time than is typical, and content, procedures, and documents required a longer cycle of revision and fine-tuning. To a certain extent, the company leveraged the needs of the intranet design process to shorten some procedure-approval processes, and was able to do so thanks to strong co-operation between the Corporate Identity and Communication Department and other key departments, such as HR, Organization, and IT.
- **Limited resources:** The newly born Corporate & Internal Communication Unit coordinated the intranet project. Due to the limited internal resources available at the time, the unit decided to bring in external consultants, who were experts in internal communication and intranet platforms, and digital and social communication. The approval cycles required for every component of the project (content, graphic design, technical solutions, and so on), were time consuming and, given the short time frame, this was a successful solution.
- **Integrated communication strategy:** The Intranet Program was immediately inserted into the Group's integrated communication strategy and allowed employees to be engaged for the very first time in a shared communication process. The challenge was to include the intranet process in a coordinated communication workflow, integrated with other communication channels (media relations, advertising, web, and social). The internal and external communication teams worked as a unified team to give information to employees one minute before giving it to journalists and external stakeholders. This is not a widespread practice in other companies, where employees often learn what they know about the company through newspapers and other media channels. This model resulted in a more complicated intranet governance, but allowed the organization to boost employee engagement and loyalty.
- **Increased document migration requirements:** Before starting the project, it was estimated that roughly 200 documents would need to be migrated from the two old intranet sites into the new one. After an in-depth analysis, however, the final number totaled 1,000 documents. All key departments were included in the analysis process, including Human Resources and Organization, Quality Environment Health and Safety, IT, Finance, Internal Audit, Planning, and Reporting. The complexity of the migration process doubled the amount of time initially estimated for document migration, significantly impacting the overall project timeline.

- **Expanded content scope:** At the beginning of the project, it was decided that the team would create an interactive map with in-depth information describing the 200 main construction projects in which the two companies had been actively engaged. The idea behind this decision was to give employees a wide view of Group expertise around the world. Because the project timeline was very limited, team members decided to initially populate this map with only limited public information, and expand it to include very technical data in the second phase. All this information was intended to be helpful for colleagues working on public bids or on worksites, giving them with a wide range of internal best practices, challenges, and lessons learned. To create the expanded view of the information, a network of approximately 50 people from around the world were engaged to provide technical data, key innovation data, challenges and applied solutions, images, videos, and file attachments.

  The aggregation process was very complex and time consuming. Adding all this data to the new CMS took until the day before the new intranet was launched, but the end result was worth the extra effort: the team received compliments and thanks for giving users insight into the Group's activities all over the world for the first time.

- **Expanded functionality:** During the analysis and design phase, the team realized that some functions scheduled for the second phase really should be implemented during the first phase (examples include the competition section and the personal photo uploading function, so that they could provide employee engagement tools immediately). This additional work increased the project's scope, adding more graphic design, IT, and content development work and also increasing the internal approval cycles and testing requirements. "We published all we really needed during the first phase," says Angori. "And the effort was worth it. This let us receive a very good response — in terms of traffic, access, and use of the intranet — from the very beginning."

- **Efficient management of delays:** When the Intranet Program kicked off, the new site was scheduled to launch on June 1, 2014, to help reinforce the strong message of integration between the newly merged companies. The team was able to efficiently manage the enlarged scope of the content for the first phase and push the launch date out just one month, to July 1, and launch with a truly valuable intranet platform from day one.

The new intranet has really changed employees work life in terms of reach (headquarters and construction sites), corporate culture, knowledge sharing, and social networking; the team achieved this by working hard to overcome many challenges presented to them during the project.

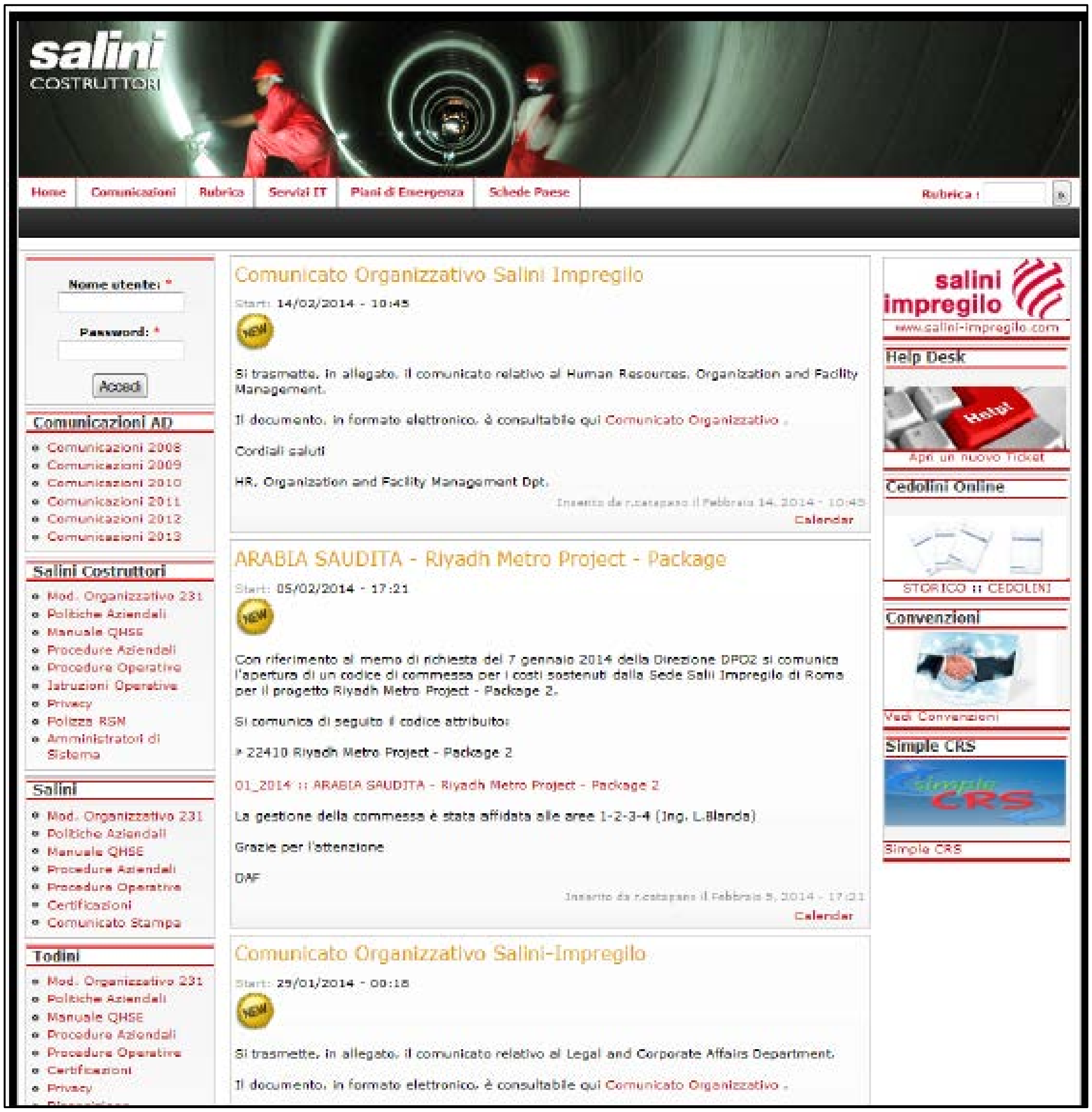


Image 130. Salini Impregilo Intranet: Previous Intranets. The two previous intranets, the Salini intranet (shown here) and Impregilo intranet (shown below), were used as repositories for documents and news, and provided limited access only to people working at the company headquarters. Content was offered only in Italian.

130_Salini_Impregilo_01_Homepage_Previous intranet01.png

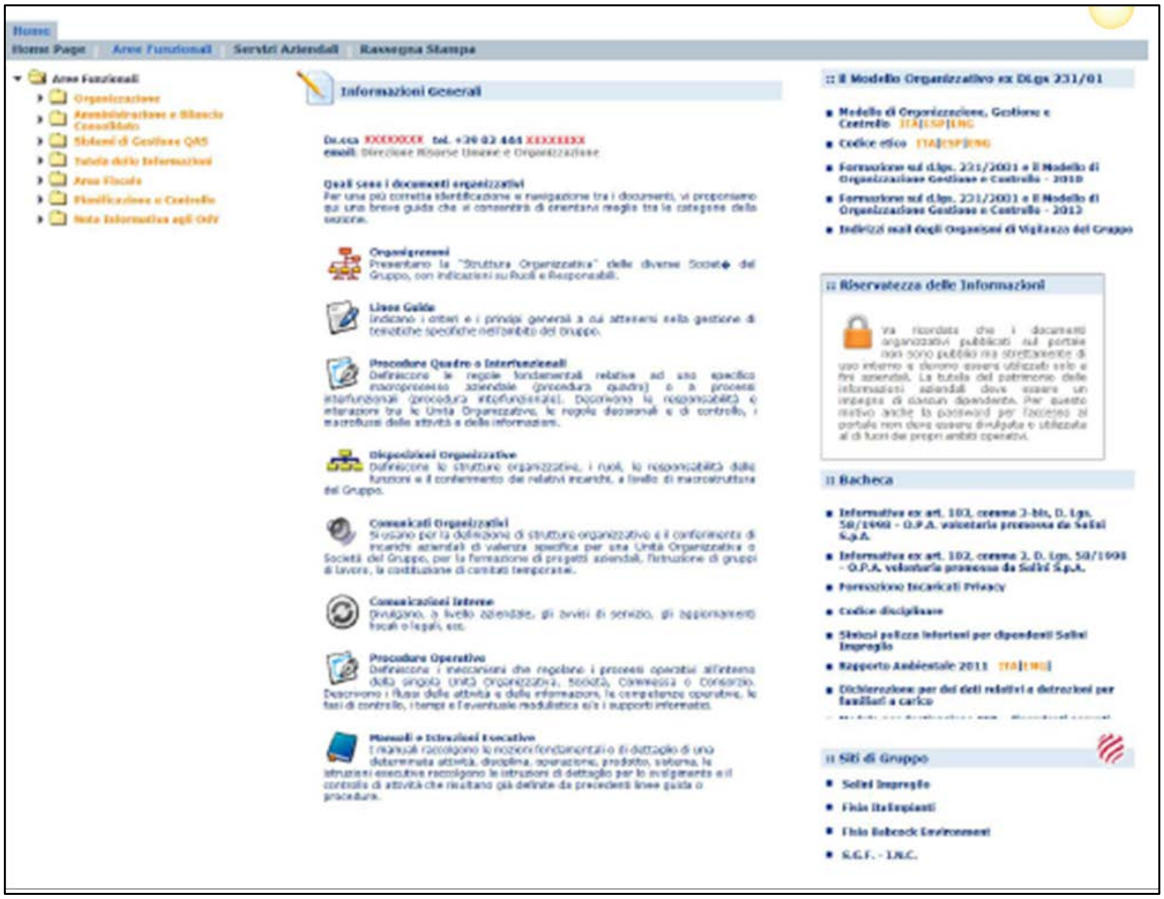


Image 131. Salini Impregilo Intranet: Previous Intranets. The Impregilo intranet before the new Group created a unified company intranet for the two merged companies. *131_Salini_Impregilo_02_Homepage_Previous intranet02.png*

DESIGN REVIEW

Homepage

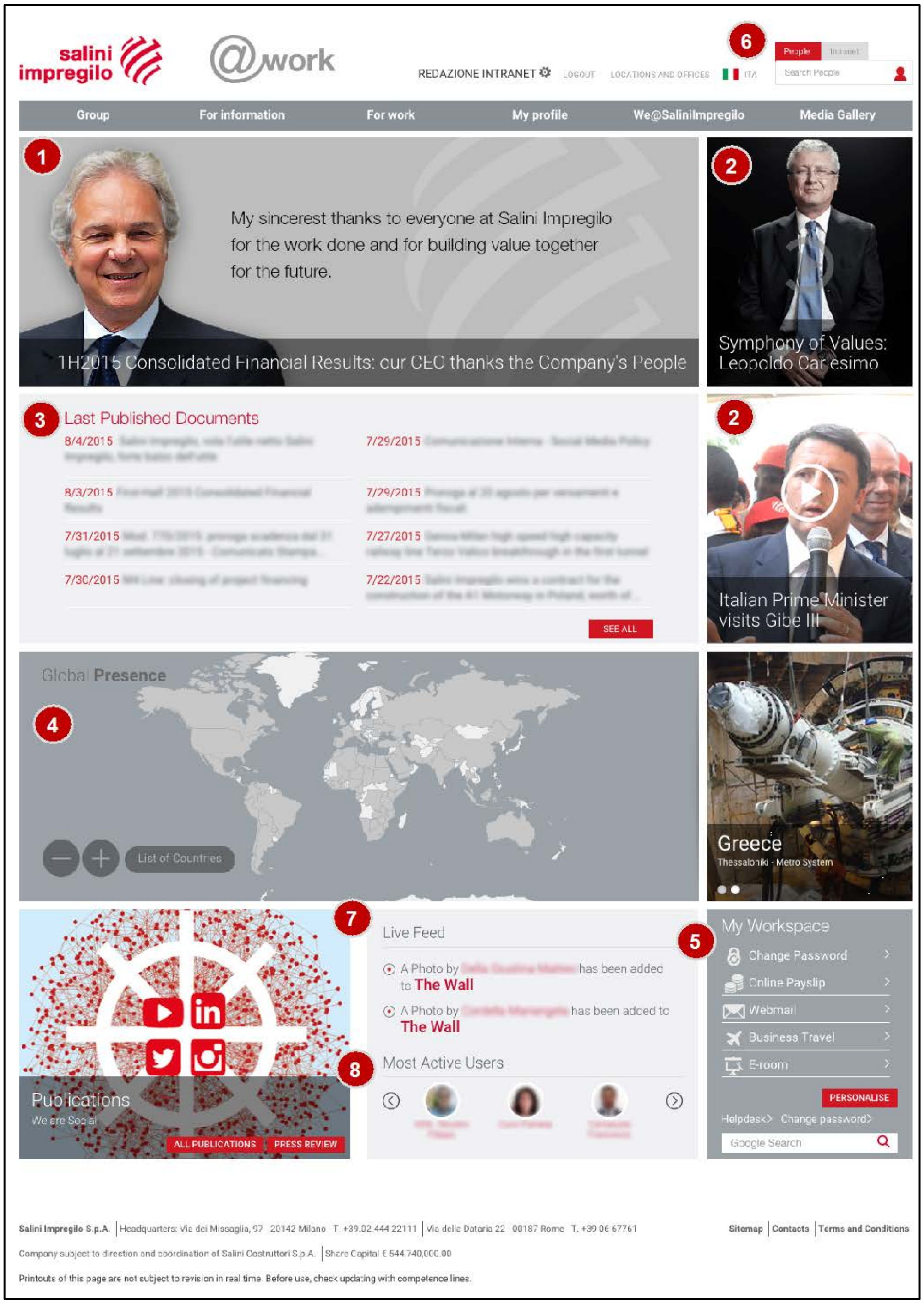


Image 132. Salini Impregilo Intranet: Homepage.
132_Salini_Impregilo_03_home_live today.png

Homepage Highlights

An elegant combination of text, images, and videos offers immediate information and keeps all the users acquainted with what's happening in the organization. It's not surprising that the @work homepage masters communication from upper management and company direction; a major goal of the design, after merging Salini and Impregilo, was to help integrate the cultures and processes of the two companies. Providing a message from the CEO, an executive message about core values, and showcasing a particular country are all smart choices for unifying and including employees from all around the organization.

1. **Hero Image:** The hero displays a large, attractive image of a smiling CEO, or the latest success reached within a project, accompanied by a simple headline statement. In this example, the intranet provides an opportunity to present a very visible, upbeat, unifying message from the leader or from the sites.
2. **Video:** A video box is positioned in the right rail, sharing the top horizontal space on the homepage. A clear image and two simple lines of text help employees quickly determine whether the video content interests them or not. These are important elements to include in any video message, so the information is accessible and users' expectations are set before they invest in clicking through and watching it. Offering information in videos can make the message seem more personal, show interactive elements, and make content more exciting than just reading it. Also, it allows employees who are at a latent point at work — such as waiting for a meeting to begin — to more passively interact with information rather than actively reading it.
3. **Documents:** The eight most recently published documents appear below the hero, displaying a short summary and date. These include a variety of news types and change regularly, reminding or informing employees about happenings.
4. **Global Presence:** This interactive map allows employees to find Salini Impregilo's 200 main construction projects (completed or ongoing) around the world. This gives all employees a sense of belonging and of pride for the expertise and the work being done. Project managers update each project file so the information is accurate and up-to-date. Features such as this can make each project team feel a sense of accomplishment, and that their project is interesting and important. For employees who are not part of the project team, making the information about the project available can bring them into the fold. This also enables employees to share know-how and best practices. The project files are organized by type — such as dams and plants, and railways and metro — and can be filtered by keywords. People can browse projects, and the search-related features make it simple to find projects by particular type.

5. ***My Workspace***: Here, logged in users can change their passwords, see their pay slip, get information about business travel, and access personal webmail.
6. **Search:** Search, which appears on every page, allows employees to search the entire @work intranet for news, people, projects, and documents. The location of this feature makes these very common tasks readily accessible.
7. ***Live Feed***: This area lists the most recent social sharing. Features such as this can help people from all around the organization share and feel heard, which boosts networking and people engagement.
8. ***Most Active Users***: This slider displays the names and photos of the employees who have participated the most in the social feed. Arrows to the right and left allow employees to scroll and see more of the most active users. Because any one of these users could be working in a city, a desert, a forest, or almost anywhere else, this type of feature helps employees share their experiences with their colleagues in 50 countries.

Communication: *For Information*

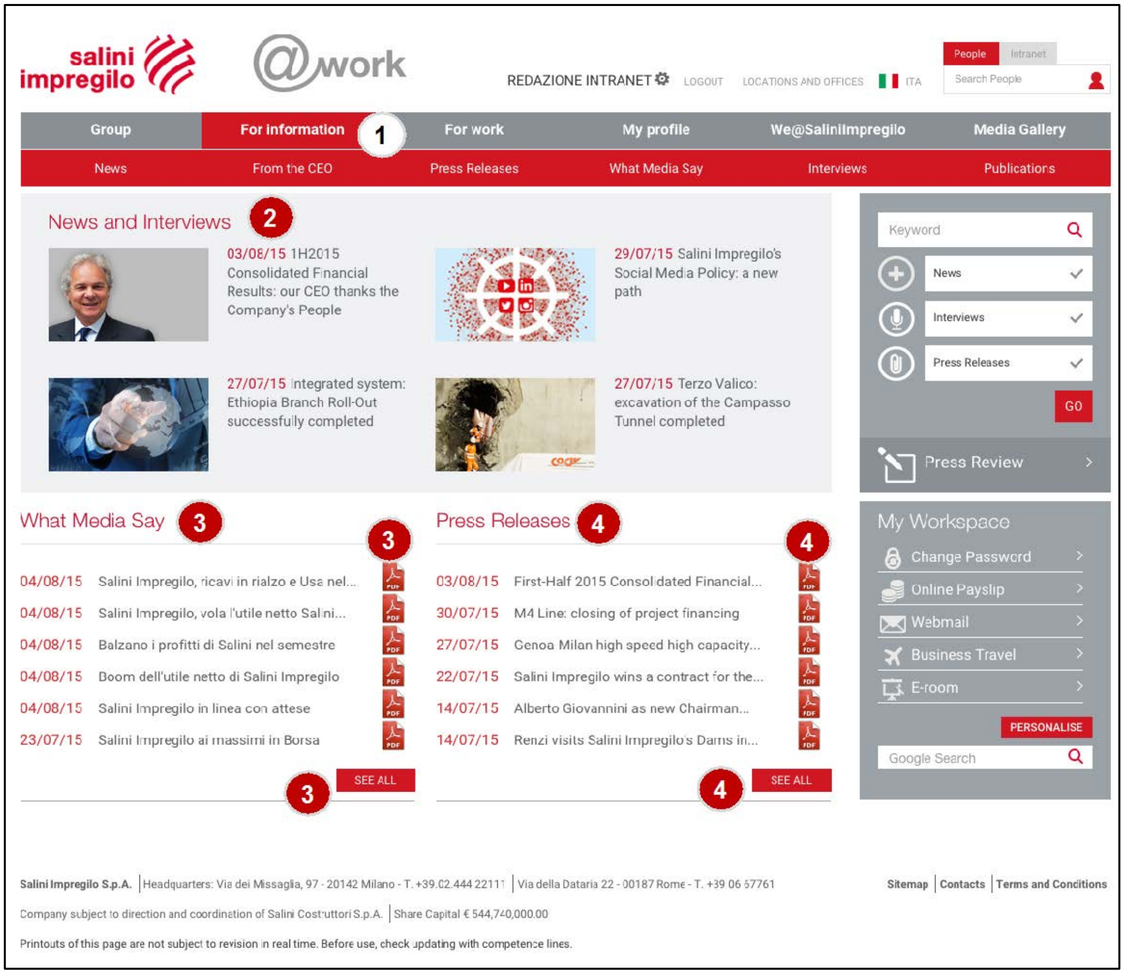


Image 133. Salini Impregilo Intranet: *For Information* Section.
133_Salini_Impregilo_04_For information_Subhomepage.png

Communication: *For Information* Highlights

The *For information* area has information about what the company is communicating to employees and to the media, as well as what the media is saying about the company. Understanding news and the press in this way makes for a better, more informed employee.

Information that's posted on the intranet is also transmitted, almost simultaneously, to media outlets, the company's public-facing website, and its social networks. To streamline the process, the team built an internal information workflow that focuses the team of eight internal people and three external people so they can work simultaneously and in a coordinated way.

1. ***For Information* Menu:** The *For information* section of @work is the second link in the global navigation menu. It includes links to several sections: news, messages from the CEO, press releases, media mentions, interviews, and publications. These areas let employees do everything from read interviews with top management to watch corporate television clips.

   Note that, for any responsive site, it can be difficult to determine what will appear when a global navigation item is hovered over on a desktop or tapped on a tablet. In this case, a main section page opens when the main tab's link is invoked. This page has information that is actually helpful, and is not just a superfluous page to get past this common IA challenge.

   The main page of @work's *For information* section has key information about governance changes, company and project performance, sectorial megatrends, internal strategic projects and initiatives, and so on.

2. ***News and Interviews:*** The main content section of this page is dedicated to the top news and interview items, each listed with clear text, a date, and an associated image. Streamlining the news here helps employees get a solid — albeit brief — update in just a few moments.

3. ***What Media Say:*** Dated news headlines about Salini Impregilo summarize the latest items published by the media. Curating items saves employees time and motives them to read about what the world is saying about their organization. The section heading is clear and readable. The PDF icon warns users that the file is an Adobe document. The red *See All* button below the list leads to the full *What Media Say* page.

4. **Press Releases:** The *Press Releases* column, to the right of *What Media Say,* is set up the same way, with a date, headline, PDF icon, and *See All* button below. The mimicked layout helps users acclimate quickly on this page and focus on content rather than layout.

Global Presence Map

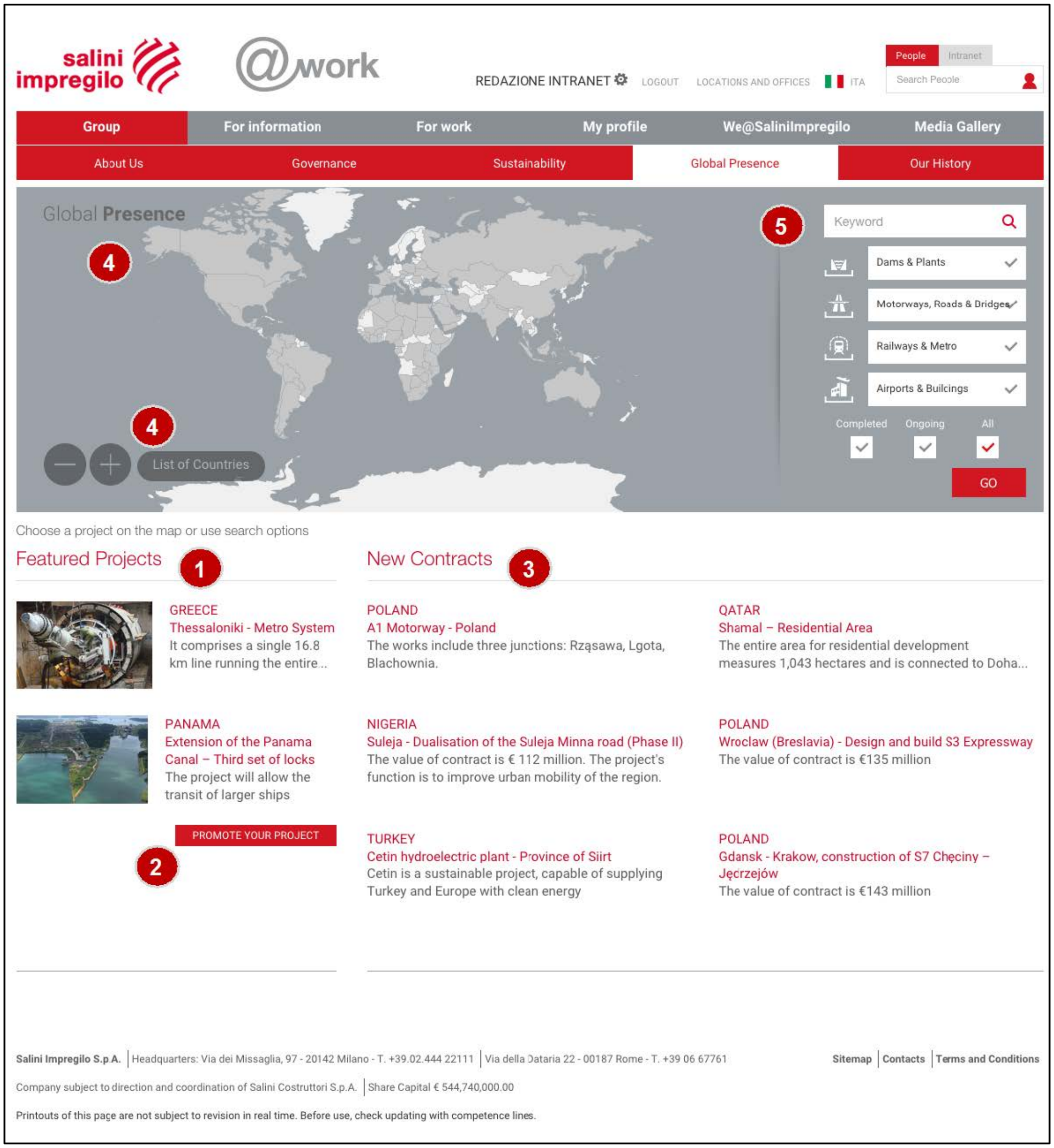


Image 134. Salini Impregilo Intranet: *Global Presence* Map.
134_Salini_Impregilo_05_Global Presence.png

Global Presence Map Highlights

The *Global Presence* map is accessed via the homepage and the *Group > Global Presence* menu. Project managers can showcase their team's work, and employees can get a true sense of the company's core business. On a computer or from a mobile device, @work enables content managers to update their projects files. Employees can browse the features and new projects or use the search functionality to find specific projects. Offering both paths takes into consideration various employee tasks and mental models.

1. **Featured Projects:** Periodically, the Communications team chooses projects that encompass something special, different, or interesting and puts them in the *Featured Projects* section. Each featured item displays an image of the project, the country where it is located, and a short description. The team chooses three projects that encompass something special or different, or three projects from different sectors (dams, motorways, and so on) to stress the company's various activities.
2. ***Promote Your Project*:** Project managers can suggest that their projects be featured by clicking the *Promote Your Project* button; this opens a page with a form they can fill out to submit text, images, or videos about their particular project. The Corporate Communications team reviews these requests to choose the featured projects.
3. **New Contracts:** As soon as a new contract is signed, the Communication team uploads the information to the intranet to keep everyone updated.
4. **Map:** The map at the top of the page is clickable (on each country), but users who would rather see words — that is, a list of countries by name — can click the *List of Countries* button.
5. **Search for Projects:** Employees can search for projects by typing a keyword in the project search on the right, or they can use filters to choose types of projects (such as *Dams & Plants; Motorways, Roads & Bridges; Railways & Metro;* and *Airport & Buildings*) or projects by status (*Completed*, *Ongoing*, and *All).*

Country Page

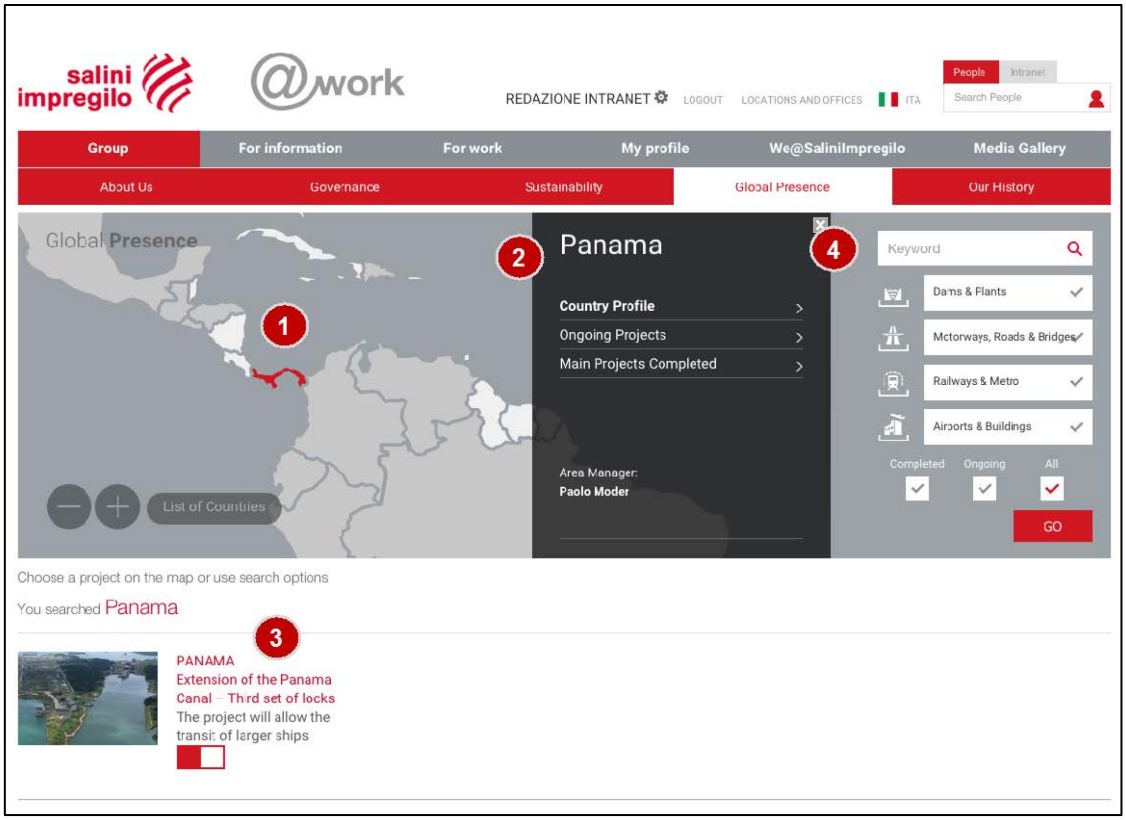


Image 135. Salini Impregilo Intranet: Country Page.
135_Salini_Impregilo_06_Global Presence_Panama.png

Country Page Highlights

1. **Country:** Clicking on a country in the map offers immediate feedback by changing that country's color to red and opening a modeless box.
2. **Box:** The box includes the country name, *Ongoing Projects* and *Main Projects Completed* in that country, and the area manager's name. The box also includes a link to the *Country Profile*, which has useful information about the country, health and safety procedure updates, and documents needed to enter.
3. **Below the Map:** Underneath the map, @work repeats the user's query and lists the country name and all the related projects (active or completed), including a name, thumbnail of a project photo, and part of the project summary.
4. **Search:** Employees can also search again from this page, using keywords and filters.

Project Page Highlights

Project pages contain a wide variety of information about each project, from technical information to contacts. All of this information, which includes telling points, such as the skills of the people on the team, a summary of the project's technology innovations, and links to similar projects, helps other Salini Impregilo employees become more familiar with projects and construction sites. This can help them plan current and future work, and connect with and learn from one another based on specific work they are doing or have done.

1. **Project Story:** The full story of the project appears in the page's main content section. Important points are called out in bold, and videos, maps, and photographs enrich that colorful content.
2. **Profile:** In the right rail the top *Project profile* section lists the basic project information, including client, supervision, contract type, area and project managers, when the work started, the project duration, and current status.
3. **Technical Information:** More specific technical information appears below this section on the right.

Image 136. Salini Impregilo Intranet: Example Project Page.
136_Salini_Impregilo_07_Global Presence_Project File.png

Social Media Section

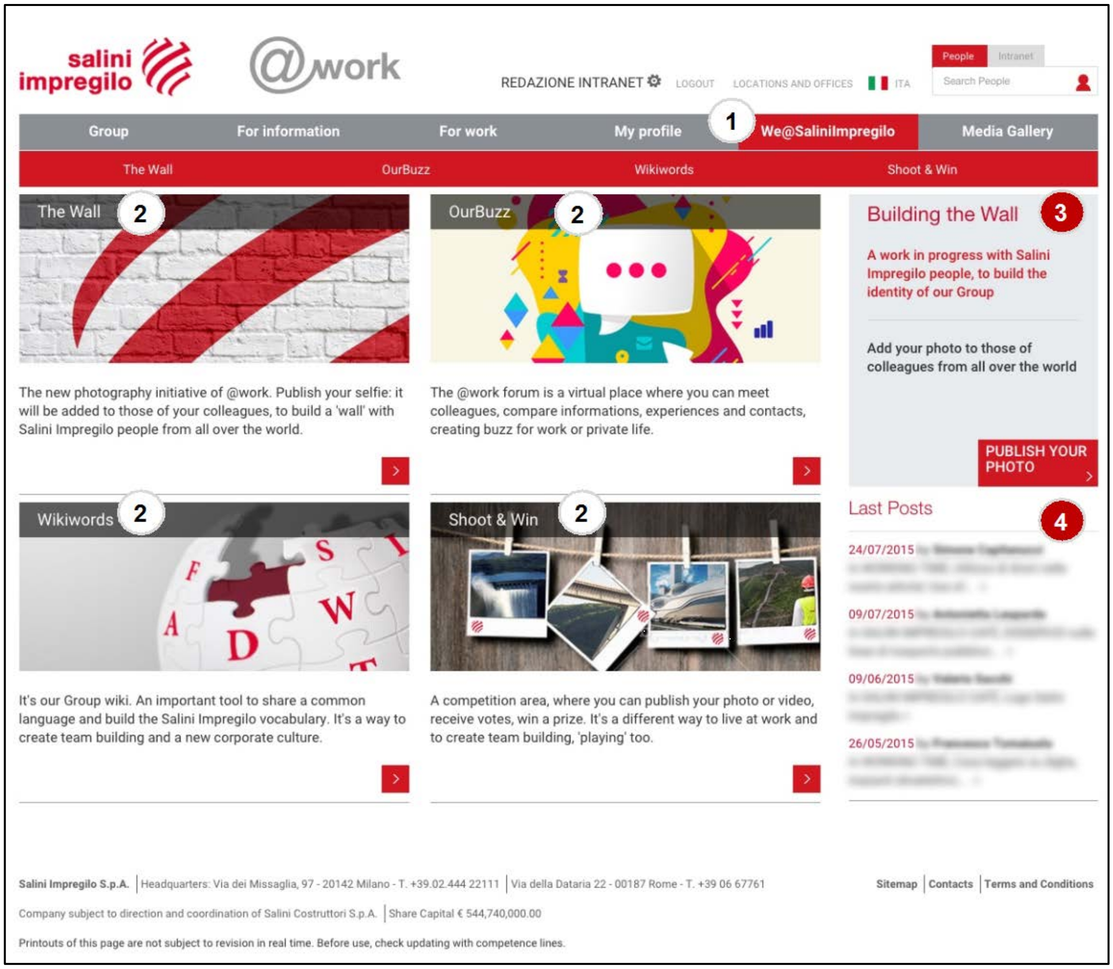


Image 137. Salini Impregilo Intranet: Social Media Section.
137_Salini_Impregilo_08_WeSaliniImpregilo.png

Social Media Section Highlights

These social sections make it easier for employees around the world to get to know one another other and to network, allowing them to exchange experiences and knowledge.

1. **We@SaliniImpregilo:** The fifth global navigation link, *We@SaliniImpregilo*, leads to four major social sections on @work: *The Wall*, which features employee selfies; *OurBuzz*, a forum for asking questions and posting ideas; *Wikiwords*, for stating and updating corporate vocabulary; and *Shoot & Win*, which offers contests to stimulate creativity.
2. **Social Section Descriptions:** The four social sections are described on the main page, with a title, image, and short (but helpful) description. A red button with an arrow below each description leads to the respective pages.
3. **Promotion:** Because *The Wall* is a new intranet section, a call to action entitled *Building the Wall* appears in the right rail. The descriptive text below informs employees that this is "a work in progress" that can help "build the identity of the group," and reinforce team spirit. The goal is to help convince people to participate. The call to action, *Add your photo to those of colleagues from all over the world*, can help individuals feel like they are part of something much greater than just a bank of ID photos. A red *Publish Your Photo* button completes the strong call to action.
4. **Last Posts:** The lower part of the right rail displays activity date and lists the latest social entries made.

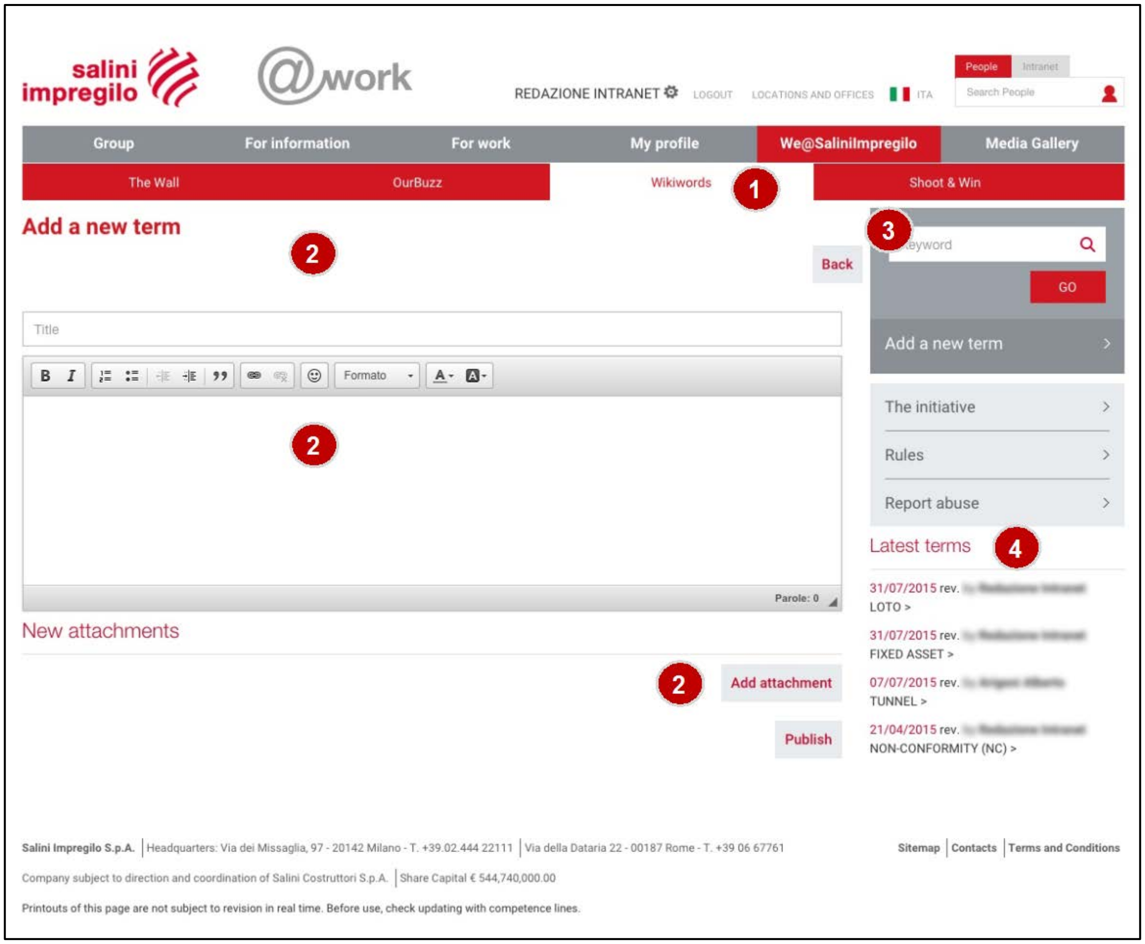


Image 138. Salini Impregilo Intranet: Wikiwords.
*138*_Salini_Impregilo_09_Wikiwords_Technical terms entry.png

Corporate Language Highlights

Wikiwords helps new employees and those who are new to or unfamiliar with a particular topic, project, or idea quickly learn the related corporate language, jargon, and acronyms. Changes and additions are saved and visible, keeping a record of the progressive construction of the Salini Impregilo vocabulary and its contributors.

1. **Wikiwords:** Employees can search, read, add, or edit terms here. They can also attach related photos or documents for a more thorough description.
2. ***Add a New Term* Form:** Employees can add a title for their entry, add information in a rich text field, and attach items.
3. **Related Actions and Information:** In the right rail, users can not only search for and add new terms, they can also read about why this feature is on the intranet, access its rules, and report abuse or issues. This information can help keep the feature up-to-date and useful, and make employees feel confident about how they should be using it.
4. **Recent:** The *Latest terms* are listed at the bottom of the right rail, displaying the date and title of the activity.

Photo and Video Contests

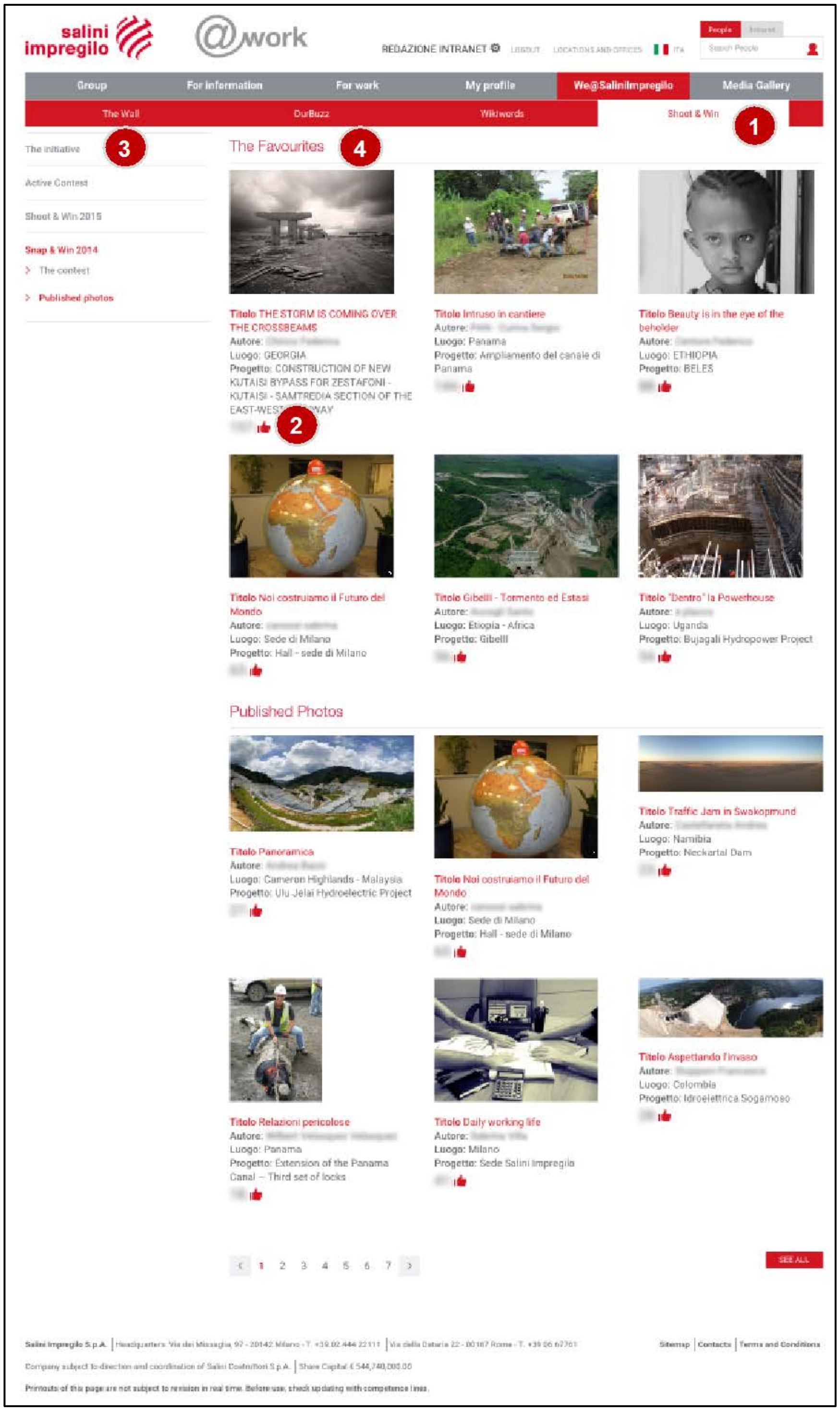
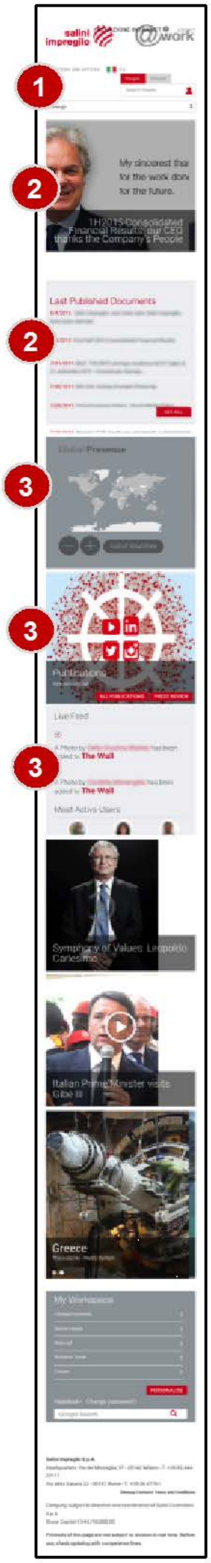


Image 139. Salini Impregilo Intranet: Photo and Video Contests.
139_Salini_Impregilo_10_Shoot&Win.png

Photo and Video Contests Highlights

1. ***Shoot & Win:*** This section features photo and video competitions, a fun way for employees to show their work and their personality. Topics for these contests include *Salini Impregilo in one snapshot*, *Salini Impregilo in a detail*, and *Nature viewed from our worksites.* Suggesting specific topics and making this initiative a series of contests are clever ways to encourage participation.
2. **Vote:** Even if users are not actually sharing photos or videos, they can still participate easily and quickly by browsing the posts and voting on them, which helps to determine the winner.
3. **Additional Information:** The left column gives employees information that helps them understand what the contests are about, as well as view active and past contests.
4. **Favorites:** The most liked photos appear on the main page under *The Favourites*, while *Published Photos* includes all the posted images from users (in temporal order).



Mobile Highlights

The responsive choices prioritize important elements and show them first and clearly in the phone UI.

1. **Search and Navigation:** These are simple, large tap targets that appear at the top of pages.
2. **Messages:** The most relevant messages and news appear before scrolling. Text is clear, legible, and remains on-brand, even on a small screen.
3. **Sections:** Aesthetic chunking using headings, background colors, larger images, and same vertical height for sections make it easy to tell when a new section appears. These elements also make it easy for employees to scan and acclimate as they scroll and pause on sections.

Image 140. Salini Impregilo Intranet: Homepage Mobile View.
140_Salini_Impregilo_11_Mobile view_Homepage.png

DESIGN PROCESS AND USABILITY WORK

Benchmarking and Listening to Users

The intranet team began the design process with an initial benchmarking and analysis phase; it also took advantage of listening to its audience.

- **International benchmark:** The team tried to identify the best (and most appropriate) intranet case studies from companies around the world. With few construction sector intranets to learn from, team members looked instead to companies from other business sectors that had similar corporate and communication needs.
- **Three focus groups:** In an effort to listen to users, the team conducted three bottom-up focus group sessions with 20 Salini Impregilo employees of different ages, genders, and roles. Participants were asked how they used the two previous intranet portals, what their needs were, and what they would like to find in a new intranet that could simplify their work.
- **One-on-one interviews with 30 top Salini Impregilo managers and key users:** Participants in these interview sessions were drawn from different departments and asked how the intranet had been helpful in their work activities, and in what ways a new intranet could make their work easier.
- **Call for intranet names:** The team put out a call for naming suggestions for the new intranet to a limited number of users (not to all employees) and received 10 suggestions. The CEO made the final decision, choosing *@work* to represent the intranet's value in terms of its contribution to Salini Impregilo's daily work and company growth.

The preliminary feedback gained from these various activities was collected and organized into a series of reports that aggregated the research data alongside users' opinions. This type of holistic analysis was useful to help the team gather more in-depth information about the intranet design and the direction of future development.

"The interviews and focus groups were extremely helpful for us," says Simona Battistella, Quality Supervisor, Inarea Strategic Design. "For instance, the need for the *Global Presence* section, with projects presentations, technical data, and useful data for similar projects or bids, was confirmed and detailed thanks to users' feedback and ideas."

Another useful idea collected during these sessions was the need to optimize the search engines so that users could find documents in the quickest way. This led to the development of specific search engines for each section.

User engagement did not stop with the planning phases. Following the completion of the development stage in Phase 1, the team conducted a two-week beta test with members of different departments who had participated in the focus groups. These tests gave team members great insights into the user experience of the new site and gave them an opportunity to optimize some functionality before the site went live.

During Phase 2, the design team took a similar approach, asking people who had participated in the original focus groups for feedback on design prototypes created for the new social features.

These repeated outreach efforts helped the team avoid some possible missteps.

All of these engagement activities also helped strengthen the idea that user feedback is critical and should become a formal, ongoing part of the intranet evolution — not merely a resource used to help launch features. In 2015, the company launched a new online community called *Communication Lab*, which is a forum where users can provide feedback on intranet needs and suggest ideas about communication initiatives, and at the same time become intranet ambassadors.

Information Architecture

One of Salini Impregilo's intranet communication and UX goals was to transition to an IA based on tasks and user needs to both optimize and simplify content availability. During the interviews and focus groups, the communication team introduced users to the first draft of the new IA. The team showed the users the proposed grouping and asked if the approach fit their initial expectations about how the content section should be organized.

The final top-level menu categories were derived from these shared analysis activities. The title of each category reflects the type of content it contains and indicates the user's goal or need to access it:

- ***Group***: This category contains all corporate information, including company profile; financial statements and results; business sectors; group structure and identity; governance and group policies; sustainability (policy, reports, and KPIs); company history, including an interactive timeline; and information about the Group's global presence, including an interactive map and thematic search engine to access ongoing and completed projects.
- ***For information***: This category contains Group news, press releases and press reviews, interviews and video interviews with top management and colleagues, Group or specialized publications, and CEO communications.
- ***For work***: This category contains everything useful for daily work, including documents (manuals, guidelines, forms, procedures, organizational charts, and so on); online professional communities (collaborative interactive workspaces for staff members related by project, business area, or professional status); training calendars; online courses; and so on.
- ***My profile***: This category contains tools and administrative documents, including pay slips, travel procedures and forms, Group insurance policies, pension fund, commercial offers for Salini Impregilo employees, and so on.

- ***We@SaliniImpregilo*:** This category contains all social features and networking tools, including:
    - ***The Wall*:** a mosaic of Salini Impregilo employees' photos.
    - ***Our Buzz*:** a forum for employees to get to know each other better by sharing experiences, contact info, and so on.
    - ***Shoot & Win*:** photo and video contests to stimulate the creativity of employees and let them experience company life in a different way.
    - ***Wikiwords*:** a corporate wiki to develop a company vocabulary; it contains important technical terms and supports the corporate culture through user-generated content.
- ***Media Gallery*:** This category contains all Salini Impregilo multimedia content, including images; corporate videos (including TV and radio clips about the Group, video interviews with members of top management, and Salini Impregilo institutional videos and advertisements); work site videos (about the site's progress, institutional visits, success stories, and so on); and the *Symphony of Values* section (featuring video storytelling).

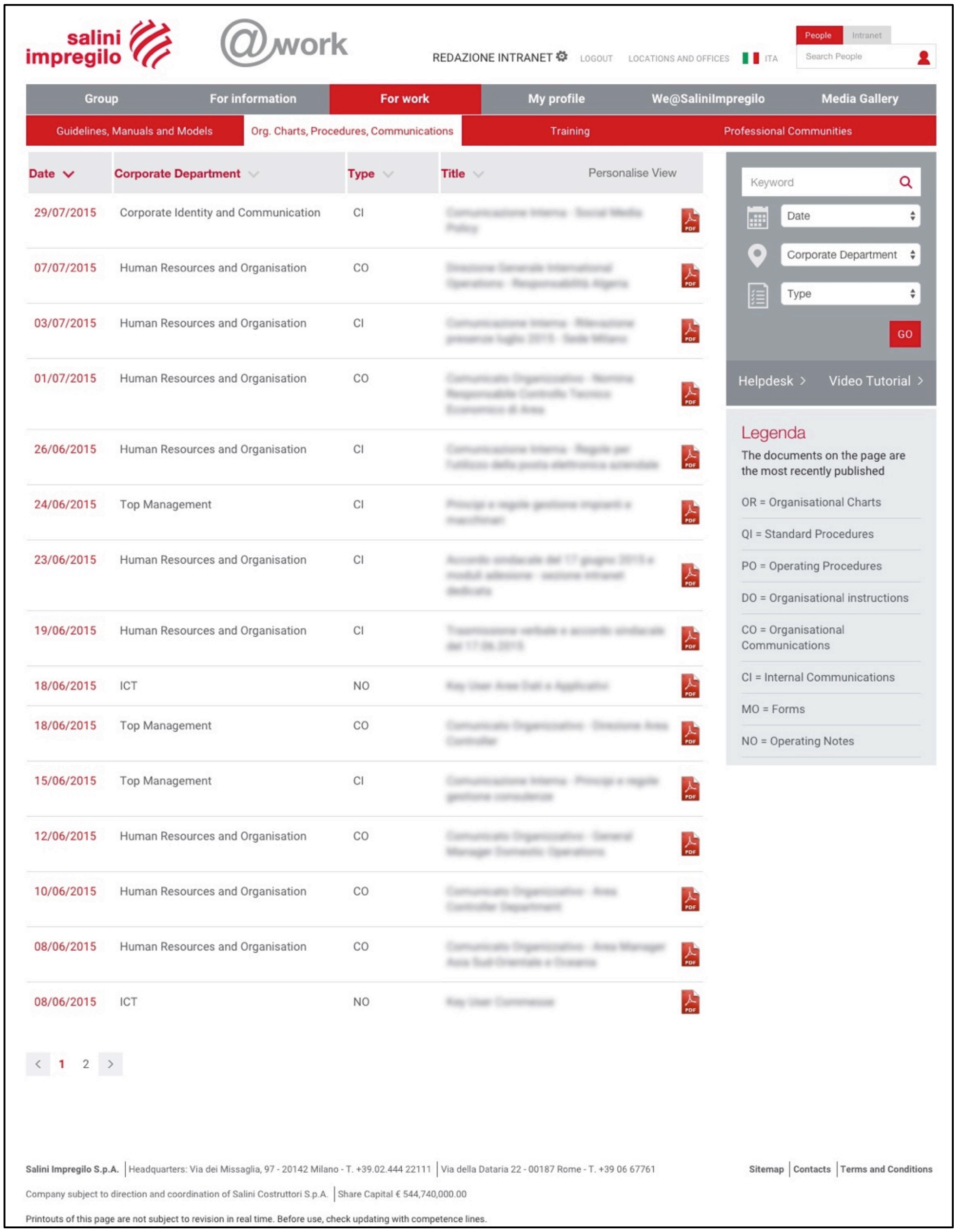


Image 141. Salini Impregilo Intranet: *For work* Section. To help simplify search, the team organized the *For work* section within *Guidelines, Manuals and Models* and in *Organizational Charts, Procedures and Communications.* Moreover, inside each section, the team activated a specific search engine that directly locates the document of interest according to publication year, keywords, type of document, or area or subject. *141_Salini_Impregilo_12_For Work_Organizational charts_Procedures_internal communications.png*

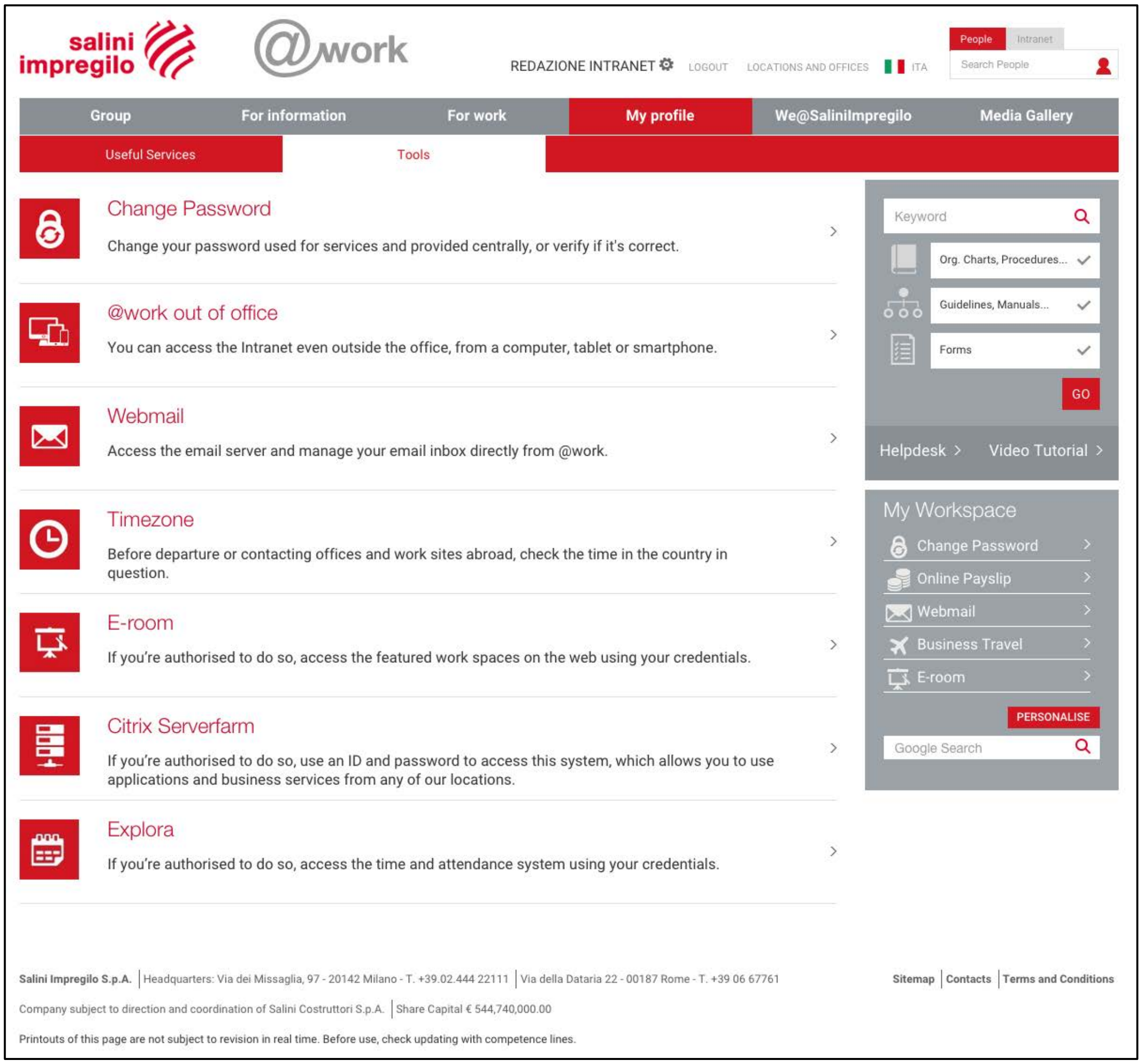


Image 142. Salini Impregilo Intranet: *My profile*. In *My profile*, users can find tools and apps for personal administrative use and other work services, including online pay slip, business travel forms and expense reports, insurance policies and pension funds, the option to change their password, direct access to personal webmail, and access to working tools and server farms to share documents with colleagues. *142_Salini_Impregilo_13_My profile_Tools.png*

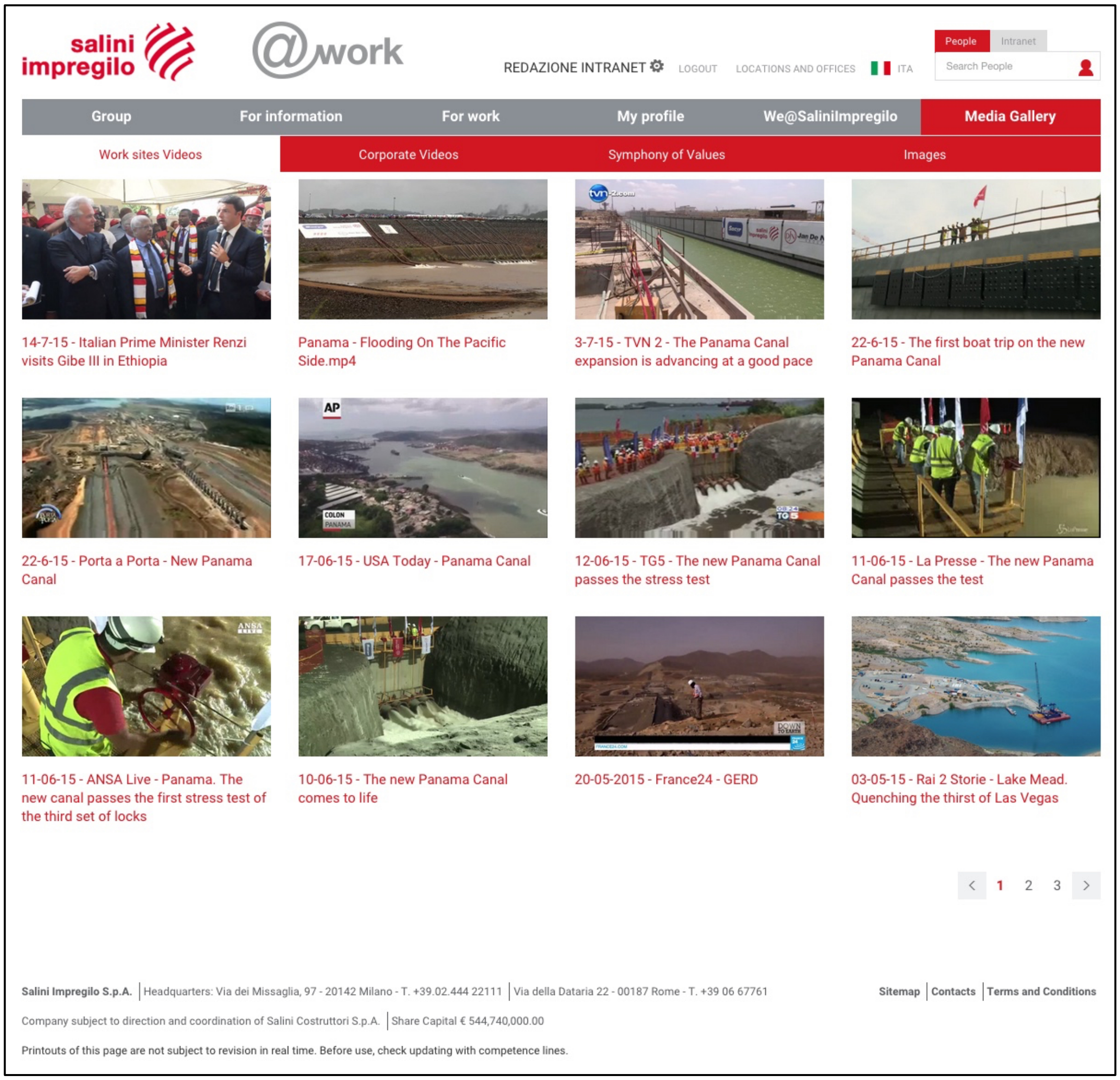


Image 143. Salini Impregilo Intranet: Multimedia Gallery. The *Media Gallery* section is a rich gallery featuring corporate videos, videos from worksites, photo galleries, and storytelling videos. Users can also access the gallery from mobile or tablet devices. *Media Gallery* contains up-to-date information on the company's corporate news, top management TV interviews, construction site work progress, and so on. It also features storytelling videos featuring colleagues (in the *Symphony of Values*). During the first year, the team collected approximately 80 videos in Italian, 80 videos in English, and hundreds of images. *143_Salini_Impregilo_14_Multimedia Gallery_Worksites Videos.png*

Image 144. Salini Impregilo Intranet: The *Symphony of Values* Storytelling Project. In June 2015, a video storytelling section was added to the intranet as a new way to illustrate Salini Impregilo's corporate values through real employee stories. The project supported the Group's goal to strengthen the corporate identity and build brand equity. This storytelling approach has been a success. In the first two days after launch, the announcement of this new section collected the average number of page views that a news item typically collects in a month. The *Symphony of Values* section is one of the most highly viewed sections of the intranet.
144_Salini_Impregilo_15_Symphony of values_Homepage.png

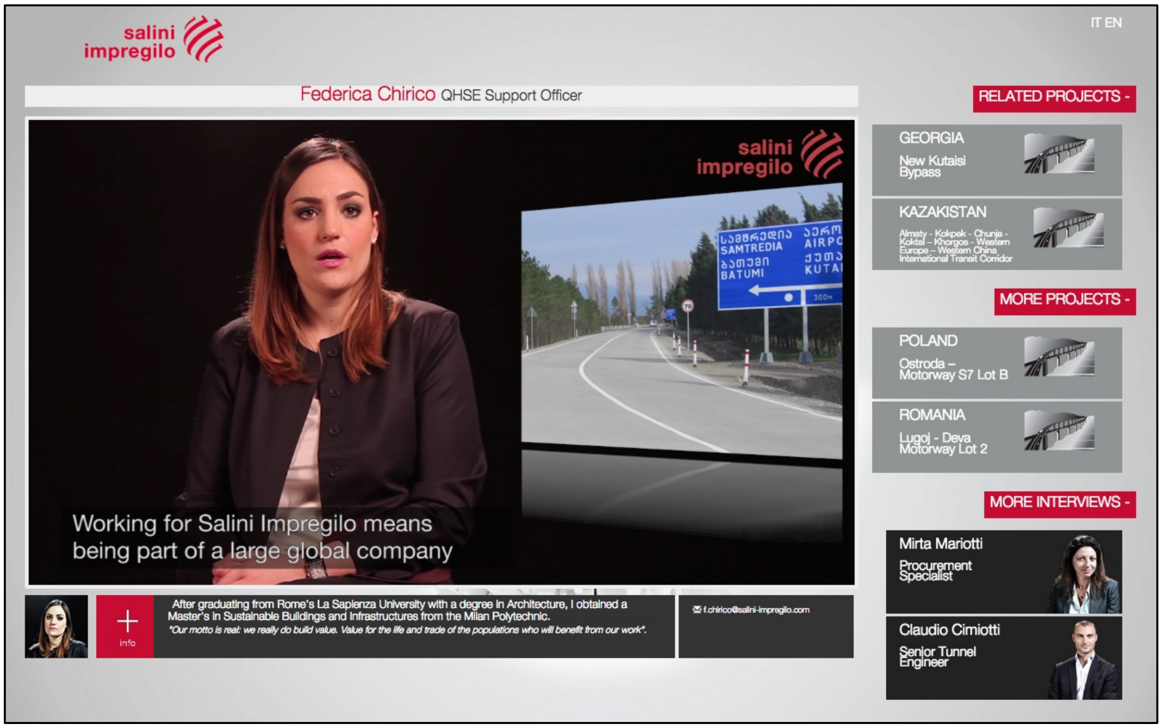


Image 145. Salini Impregilo Intranet: *Symphony of Values* Example Video. This screen shows how the page looks once a user selects a video from the *Symphony of Values* video library. *145_Salini_Impregilo_16_Symphony of values_single person page_Example of video2.png*

Features

The design team's willingness to listen to and learn from user needs led to the development of several well-targeted functional elements across the site that enhance the user experience and increase information finding. Among these functional elements are the following:

- **Rich menu:** This drop-down menu shows users all available subcategories before they click on a section. It thus helps users get a sense of the site's internal structure, increasing their confidence with the main areas and offering quick access to internal content.
- **Filters:** The site provides a selection of filters to help users quickly find the files they need. Users can, for example, search by department, publication year, keyword, and document type (such as organizational charts, operating procedures, forms, internal communications, or operating notes).
- **Address book:** The address book feature on the two previous intranets was considered a killer app and played a strategic role in the merger integration phase.

The new site’s address book has been completely redesigned and contains all the Group managers and employees contact details (phone, mobile, email, and department) and interactive organizational charts that show each employee’s position and let users browse up or down a level in the hierarchy. The profile photo (uploaded by users) is connected to the company’s email system, so users can see their colleagues’ faces when they receive email from them. The new address book application continues to be a killer application due to these and other innovative features.

- **Social area:** To increase networking opportunities among colleagues, the team also created a social area. This type of feature did not exist on either of the previous intranets. The social tools let colleagues participate in discussions in the *Our Buzz* forum, which identifies participants by name, department, and their address book profile photo. The social area also lets users compete in the online *Shoot & Win* competition and discover other colleagues from around the world through selfies published in *The Wall* section.
- **Search:** Users frequently use the specific internal search engines to locate specific types of information:
  - ***Search People* engine** finds colleagues and their contact data or position in the organizational chart.
  - ***Global Presence* engine** finds projects by country, type (dams and plants; motorways, roads, and bridges; railways and metro; airports and buildings); and work progress (ongoing, completed, or all).
  - ***Organizational charts, procedures, and communications* engine** finds documents by keyword, year of publication, department, and type (including organizational charts, operating procedures, forms, internal communications, and operating notes).

Adoption and Buy-In

To get buy-in from the organization and entice people to use the new intranet, the team adopted a strategy that included the following components:

- **Top management involvement:** Top and key managers were continuously updated on the work in progress and were interviewed to provide the communication team with proposals and ideas. Further, with their launch interviews, the top managers showed that they endorse the Intranet Program.

- **Intranet presentation to a selection of key users:** A group of key users (content owners, content managers, beta testers, and so on) were identified by the intranet team during the first month after the site launch. The team engaged them as intranet ambassadors, and explained the new functions and all of the possible ways the intranet can be used for work, and invited the ambassadors to spread the information to other colleagues. The team considered this effort to be the second most important (after top management involvement) for engaging people on intranet use.
- **Communication and promotion campaigns:** The communication team conducted an outreach campaign before and after the intranet launch.
- ***Shoot & Win*****:** To encourage people to use the intranet in a fun way, especially in the first few months after launch, the team launched photography competitions. These photo contests created engagement and increased word of mouth among colleagues, encouraging users to check out the intranet site after posting an image or voting for images published by their colleagues.

These efforts are just a starting point, and the communication team intends to continue to promote the intranet's less-used sections.

OUTSIDE AGENCIES	
Agency	**Project Role**
Inarea Strategic Design Communication strategy, market analysis consultancy, UX, design and development, KPI monitoring, and content management (in strict coordination with and the supervision of the project owner)	• Conducted the international benchmark and best-case analysis • Supported the internal team in conducting the internal context analysis, interviews and focus groups with relevant user groups (with the support and supervision of the project owner), and beta tests • Supported the internal team with work methodology, work plan, the IA and new content map, UX, workflows, and page templates (schematics) • Provided web identity, graphic design, HTML pages, technological development, including testing and debugging, publishing and migration of documents, CMS training, and promotion and engagement activities • Supported the project team in intranet presentations and communication campaigns • Provided content and community management, KPI monitoring, professional communities monitoring, technological support, and support for new development activities
Elica Produzioni A communication agency specializing in video production	• Conducted the international benchmark and best-case analysis for storytelling videos • Conducted the internal context analysis for storytelling videos • Supported the internal communication team in designing the *Symphony of Values* concept and developing the related content • Shot the videos for the *Symphony of Values* section • Developed the *Symphony of Values* Responsive IT platform (graphic design and HTML pages)

GOVERNANCE

The Corporate & Identity Communication Department's Corporate & Internal Communication Unit owns the intranet governance model and coordinates and manages the intranet process.

A complex governance model has been developed and shared with more than 80 people in the Group to guarantee intranet service and daily updating of information and news, internal processes, and the governance of authorized people entering the site.

Due to the very special sector in which the company operates, a network of approximately 50 key intranet users has been appointed to provide governance to the intranet users in the 50 countries in which the company operates.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Corporate & Internal Communication	• Provides intranet guidelines, policy, and governance; coordinates program management, coaching; and training activities; supports content owners and content managers; coordinates intranet promotion campaigns and engagement activities; provides supervision of all professional communities • Manages and maintains corporate content and all intranet features • Guarantees supervision on all intranet activities and content • Guarantees continuous monitoring through a tableau de bord of 112 KPIs, leading changes and improvements • Through the external agency, is responsible for the front-end and back-end software that makes the intranet work (SharePoint 2013)
IT	• Manages and maintains the intranet's servers and hardware systems (Rever Proxy, Active Directory, and so on) • Provides help desk services to intranet users • Guarantees supervision of the intranet's technology decisions
Human Resources	• Proposes and supports initiatives related to people engagement and change management • Supports periodic intranet change and improvements • Supports data management, such as managing the list of users who can access the intranet • Manages and maintains o HR apps o HR content (such as procedures and forms) o The training section (content and online platform)
Content Owners in Each Department	• Update and ensure consistency of their department's sections • Delegate aspects of updating/changing content to others in the department (optional)

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• https://intranet.salini-impregilo.com
Default Status	• To make logging in easier, single sign-on has been instituted within the company's headquarters, letting users access a personal computer, webmail, the intranet, and company apps or tools (such as Citrix) using the same ID and password • Each time users open the browser while working at headquarters, it opens to the intranet homepage in the language set in their personal computer (Italian or English) • When working outside headquarters, users have to enter the intranet URL and their ID and password to log in
Remote Access	• Users can access the site remotely, through a PC, smartphone, or tablet, by simply typing the intranet URL and entering their personal ID and password
Shared Workstations or Kiosks	• Shared workstations have been set up at some construction sites, letting users access the intranet on site using their personal ID and password

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
1994	• **Previous intranets:** The two previous intranets (Impregilo and Salini Intranet sites) operated with periodic improvements until 2013
January 2014	• Merger between Salini and Impregilo
February 2014	• Call for bids for the new intranet integration and development project
March 2014	• Agency selected • New Group Intranet Program kick-off
March–April 2014	• Preliminary analysis, benchmarking, interviews, and internal focus groups
April 2014	• **Communication and User Experience Project:** Development of the communication strategy, IA, content map, promotion and engagement plan, first-phase UX criteria, and navigation model
April–May 2014	• **Phase 1**: Graphic design, technological development, and content development
June 2014	• **Phase 1**: Content development and publishing, testing and debugging, beta testing with a group of 30 users, and changes based on test results • Launch of the first phase • Internal advertising and teaser campaign
July 1, 2014	• @work goes online for headquarters users in Rome and Milan • Launch of the first online competition (*Shoot & Win*) • Communication campaign reveals the subject of the teaser campaign

July–August 2014	• Content owners and content managers trained on intranet and CMS • Documents and project search engines optimized • Integration of some functionality in the homepage slideshow • Planning activities published
September 2014	• **Phase 2 kick-off:** focus groups and interviews • Launch of the new *What Media Say* section, featuring a selection of strategic multimedia press reviews (TV, radio, newspapers, and webzines)
October 2014	• Phase 2 graphic design, technological development, and content development and publishing
November 2014	• Phase 2 testing and debugging, beta testing, and optimizations; opened site up to work with users • Close of the first *Shoot & Win* competition • Launch of the Phase 2 advertising and teaser campaign
December 1, 2014	• Second release of @work goes live with new homepage, social features (professional communities, *OurBuzz* forum, *The Wall*, and *Wikiwords*), and the English version of the site • Launch of the second phase communication campaign
December 15, 2014	• Celebration of the winners of the first *Shoot & Win* competition and launch of the new competition
May 2015	• New homepage, with more multimedia boxes and social feeds, and a new publications section
June 2015	• Launch of the new *Symphony of Values* section

July 1, 2015	• Celebration of the first anniversary of the intranet, featuring news, infographics, and a "congratulations" design skin on the homepage • Launch of the new interactive organizational charts in the address book
July 2015	• Launch of the interactive 2014 *Sustainability Report* and the New Employees Professional Community; Communication Lab Community established

CONTENT AND CONTENT CONTRIBUTORS

The CMS is a customized version of SharePoint 2013, with different rights and workflows.

Approximately 80 people are engaged in the intranet's content management as editors, content managers, content owners, content providers, intranet coordinators, and supervisors. Content editors are mainly based in the company's headquarters, while content providers and content owners are located in Italy and around the world on construction worksites. These people were selected for their role and competence.

Content owners manage specific content; they are the heads of departments or country or area managers (in the case of projects). Content owners were asked to give the intranet team a list of key intranet contributors who would serve as the operational content providers and/or content editors for their respective areas. Some of them are directly engaged in publishing content — such as in the *For work* area and its documents repository. Content contributors are given total autonomy to publish and update files based on their own specific needs and the content they manage.

Content in the *Group* and *For information* areas is managed by the Corporate & Internal Communication team, which collects information and data from content owners and providers, creates news and static pages, asks for the specific content owners' approval, and publishes the content online. Inarea Strategic Design Agency supports the intranet team in this activity.

"Together with Inarea, we provided training for all editors in classrooms and through manuals," says Angori, "advising them on the most appropriate templates and metadata to connect to content and files, what the best publication period is (days and time), and how to promote content on the intranet homepage and among colleagues."

Content editors also receive a complete intranet manual, showing them how to access the editing section of the CMS, where they can add new info, and what and how other departments communicate.

Managing intranet content is part of the job function for all content owners, content providers, and editors. Contributors from the Corporate & Internal Communication team and team members from agency partner Inarea Strategic Design are also fully dedicated to the content management process.

Maintaining Quality

To guarantee that content is always fresh, up-to-date, unduplicated, and doesn't contradict other content, team members perform a daily check on what has been published and what other sections and pages contain (if related). "For example," says Angori, "we check if a news article or new content published by some editors contains new data that can be updated in the *Group profile*."

This daily check is managed by the Corporate & Internal Communication Department, with the support of Inarea Strategic Design.

Social content, provided by all employees and located in the wiki, forum, and competition areas, as well as in professional communities, is subject to rules and regulations that the team asks people to follow carefully. All users are responsible for the content they publish; the intranet team reviews it with the support of Inarea Strategic Design.

A daily check for new content is signaled through an email alert service offered by the CMS. In specific cases, such as when content is incomplete or users have a question, the team engages other people inside the Group who work in a similar sector or possess the know-how about proposed content so they can add information or answer any questions that arise.

In addition to all these checks and balances throughout the content management process, the team monitors intranet analytics (112 KPIs) every month to keep a cycle of continuous improvement going. These analytics focus on access, most viewed pages, documents, videos, news and interviews, countries of connection, and so on.

Governance Guidelines

In addition to the training and support provided for content management, the intranet team also created a set of documents that are used to guide overall intranet governance:

- **Governance plan:** This includes the content map for each section and page. It lists the names of content owners, content providers, and content editors, and indicates how frequently the content requires updating (such as daily, weekly, monthly, or periodically).
- **Guidelines for news and interviews:** These guidelines contain an internal workflow description which includes: meetings of the Corporate & Communication team to decide the next news to be published, proposed titles, news content, the approval cycle, publishing date, final page approval, and online status.
- **Intranet presentation and training guidelines:** Includes a presentation of the intranet's graphical design, content areas and tools, IA and editorial workflows, rules and guidelines, and a guide to the CMS.

- **Editorial plan:** This plan addresses intranet goals and targets, a communication register, a description of each section and subsection (to clarify what they do — and do not — contain), each section's update frequency, and the governance workflow.

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• VMware (web server hardware) • VMware, four virtual machines with Windows Server 2012
Bug Tracking / Quality Assurance	• SharePoint 2013 custom site
Design Tools	• SharePoint Designer 2013 • Adobe Photoshop and Adobe Illustrator
Site Building Tools	• SharePoint Designer 2013 and Notepad ++ • Libraries (jQuery, jQuery UI, noty, DataTables, and CSS3)
Content Management Tools	• SharePoint 2013
Search	• SharePoint 2013 enterprise search (FAST engine with custom UIs)
Other Functions	• Custom Org chart render library • Mini sites • Video and images library within iOS support

RESULTS AND ROI

It's About More Than Just Money

Supporting the integration between two companies and giving all employees a new working and networking tool was the major challenge this team faced at the beginning of this project; the team surely succeeded in meeting it.

"In general, we had an absolutely positive result in terms of traffic and use of the intranet," says Angori. "This is especially true, considering our type of our work and the fact that many of our people work in extreme locations (desert, bush, etc.), and not in an office with a stable internet connection."

Measuring KPIs

The team developed a monitoring system to track the intranet's impact using 112 KPIs organized into five areas. These include:

- **Editorial activities** (13 KPIs): These monthly views look at how many news articles, interviews, documents, photos, videos, new pages, and updated pages have been added to the intranet, and who added them (which editorial team or content editor). It features a graph indicating yearly trends.
- **User experience** (41 KPIs): These measure daily accesses; daily and monthly sessions; sessions from PCs and from mobile devices; average session duration; day and hour metrics; connection locations and devices (from mobile, PCs, and both) and connection locations alone (by continent and countries); monthly and daily searches (from PCs or mobile); monthly and daily searches for each search engine (people, projects, and so on); and monthly and daily downloads (from PCs and mobile devices).
- **Content** (12 KPIs): These monitor the most visited sections, pages, and content from PCs and mobile devices, and for each main area.
- **Engagement** (39 KPIs): These focus on social page views, monthly and daily accesses, and the number of users and activities in each specific social area (from PCs and mobile).
- **Assistance and Help** (7 KPIs): These focus on Helpdesk and video tutorial page views, and the number and type of Helpdesk requests.

Each KPI has a specific quantitative goal, and each month the team calculates the related percentage reached. With the support of Inarea Strategic Design, the team also tracks the following metrics each month:

- **Tableau de bord** (with all 112 KPIs): This report focuses on goals, monthly results, and the percentage obtained each month compared to previous months. This is an internal tool used by the Corporate & Internal Communication team.
- **Monthly analysis:** This includes data and graphs on the main KPIs, interpretation and comments about the results, and strategic guidelines for the upcoming months. This is also an internal tool used by the Corporate & Internal Communication team.
- **Monthly synthesis and dashboard:** This provides an overview and a summary of the monthly analysis for use by internal top management.

Analytics and monthly reports are very important to the organization.

"For us, the analytics and monthly reports are very important tools to monitor and evaluate our activities and the employees' usage of the intranet. The aim is to collect data and information to continuously optimize the intranet content, its tools, and user experience in general," says Angori.

Measuring User Sentiment

The design team asked users to share their thoughts about the new intranet during focus group sessions held during the second design phase and also in the time leading up to the intranet's first anniversary. Although not a fully structured survey, many of the opinions and suggestions users offered helped the team optimize intranet sections; they also provided ideas for further improvements. Some of the insights gained through this process include the following:

> "The new intranet has transformed the image of our company, making it more modern and intercultural and giving names and faces to our colleagues, projects, our work, and our successes. Now, we even have an integrated source of information and documents for our internal audits." (Head of Internal Audit)

> "The intranet is not just for daily information, but it is also an essential tool that helps us integrate and share information during these years of rapid growth both in size and in terms of a new corporate culture." (International Operations Department)

> "@work allows me to stay up-to-date on our company and to easily access information that is important for our business. With @work, I can take part in every Group development, and that fills me with pride!" (Head of Employer Branding)

> "The new social platform allows me to get information on our Group and the ongoing projects in a much easier way, in order to take part in international tenders in the prequalification phase." (Concessions Department)

> "The sense of satisfaction that comes from positive results and successes is multiplied when it is shared. Experiences are amplified when they are shared, and this is the great social power of our intranet, on top of its usefulness as a daily tool." (International Operations Department)

LESSONS LEARNED

The Salini Impregilo team shares the lessons learned from its Intranet Program:

- **Define the project objectives up front.** "These pillars must be clearly identified at the beginning, and integrated in a more general business and communication strategy to make the intranet a part of a wider company growth strategy. Top management must be involved from the beginning to set the objectives and the communication strategy."

- **Share the communication strategy and goals broadly.** "Share these goals with frontline managers (to make them cocreate the intranet IA and its content), internal opinion leaders (to engage them from the beginning and give them the ability to propose new ideas in line with the intranet's goals), key users (a selection of them, to periodically collect their opinions and needs). Make all these people be brand ambassadors and activate an effective cascading process for all intranet users."
- **Turn users into content providers.** "Implementing and giving exposure to a cocreation process with users, and encouraging people's engagement, made our intranet user-centric and user-friendly, and part of everyone's business activity. We gave voice to employees through content, videos, interviews, quotations, and storytelling, to enhance team spirit and the value of everyone in the company. It helped the cascading process of the New Identity Pillars (vision, mission, and core values), too, forming a panel of loyal brand advocates."
- **Make sure the intranet offers useful information and tools.** "If the intranet's tools and information are not useful, users won't be interested or involved in intranet activities. Develop a few killer applications or engagement initiatives, to guarantee a smooth onboarding process before the launch to activate a consistent word of mouth in the cascading process. Give users a reason to spend time on the different sections of the intranet through an attractive homepage that is simple to surf and has clear content and effective multimedia information. In a word, ensure a flawless user experience for your employees."
- **Create a dedicated, cross-functional team.** "Make sure the intranet is an important element of any job function. It is essential for all engaged people (coordinators, IT developers, content managers, content providers, editors, etc.), to guarantee content quality and consistency, and up-to-date information. Users will then refer to the intranet as the main secured and certified information hub."
- **Unlock knowledge that may be hidden under the surface.** "Each employee often has unique contributions to share within the company. In many cases, this precious knowledge is hidden below the surface, waiting to be funneled, so that it can create value. Try to offer an easy-to-use platform and facilitate the sharing of this know-how through the use of social features and through the engagement of users in the creation of content and ideas."

- **Invest in promoting the intranet**. "Invest in communication campaigns to increase employees' awareness of the new intranet and its functions. Use simple tools, such as graphic DEM (Direct Email Marketing), to push strategic content, or use internal presentations, workshops, or video tutorials to remind users about key functions or strategic features aimed at boosting productivity. However, it's also necessary to find the best tradeoff between the frequency of internal communications and the release of new pieces of content to avoid information overload."
- **Don't stand still.** "The intranet launch must be considered just a starting point. Never stop collecting feedback from the work environment in order to invest in new development, user experience upgrades, and responsive design rework. Continuously monitor the intranet's traffic data and user behavior, and periodically listen to users' needs and opinions, in order to make sure that the intranet is always helpful to everyone. Answer users' working needs and show them the quickest and simplest way to find the right content."
- **The intranet must be designed to follow common web standards.** "Think about the intranet as an internet platform, and employees as typical digital customers. The intranet must have a flat and familiar design, with a comfortable virtual environment where users can interact and be productive without feeling frustrated or confused:
    - make the intranet a useful and updated tool, providing employees with everything they need to comfortably approach their daily tasks;
    - use drop-down menus and quick launches to simplify user orientation and information research;
    - adopt carrousels, interactive maps, infographics, and multimedia content; and
    - invest in robust internal research engines, search filters, and categorization (customized for different areas) to help users find exactly what they are looking for. Tag everything properly and find ways to efficiently file and categorize content.

  The goal is to dramatically reduce the time needed to download a document or find information."
- **When in doubt, simplify.** "If you have more options to choose from, or some doubts about content or a design element, take your time, remove redundant or unnecessary information, and ask key users for their opinion. Choose the simplest solution and your users will thank you."
- **Be flexible in all phases and activities.** "Find the right team of experts who can transform your needs in a tailor-made solution, in order to change the design or the development in progress. Balance this need: too many and continuous changes can disorient your users."

- **Plan the intranet release in scheduled phases.** "Organize releases in different phases: this will improve the final result and can be a positive opportunity to focus users' attention on different sections and features."
- **Use social intranet features both for work *and* leisure.** "Don't use the social intranet just for strictly professional purposes, but let employees communicate more easily with each other — creating a network — and maintain a close bond. Do not demand immediate feedback; remember the "1% engagement rule" (in every social initiative, 1% of users are directly engaged, publish, and participate actively, most are passive users) and wait for long-term results."

The Swedish Parliament

OVERVIEW

COMPANY

The Swedish Parliament

Headquarters: Stockholm, Sweden

Company locations: Stockholm, Sweden

Locations where the intranet is used: Mainly in Stockholm, Sweden, but also when members travel or are in their hometowns.

Annual sales: N/A

THE INTRANET

Users: Approximately 1,500 users at the Swedish Parliament, with three main target groups: members of parliament, party secretariats of the parties represented in parliament, and the parliament administration.

Mobile approach: Responsive web design

Technology platform: EPiServer 7 CMS, Apache Solr, SharePoint 2013

TEAM

Design team: The core in-house team consisted of three people, with a further 10–12 project members who changed over time depending on the project phase and the work being done. The internal team worked mainly with the digital agency Creuna and together they formed a big project team. The communications agency Futurniture had a smaller role in the project.

Project sponsor: Karin Hedman, Head Of Information Department and Intranet System Owner

In-house core team: Jessica Stringer Bodin, Main Project Manager; Birgitta Elgemyr, Web Editor; Paul Lernmark, Technical Project Manager (Consultant)

In-house team: Mikael Stridh, Graphic Designer; Ingeborg Granlund, Project Communication; Anna Elding, Content Team Leader; Åse Karlsen, Web Editor; Katarina Willstedt, Web Editor; Lars Gustavson, Communication Strategist

Creuna digital agency: Janna Palmgren, Project Manager; Katja Engelhart, UX Lead; Angelina Fredriksson, Senior Interaction Designer; Sofia Chiang, Interaction Designer; Peter Jansson, Art Director; Pär Fröberg, Systems Architect and Lead Developer; Alexandra Krabb, Back-End Developer; Gustav Syrén, Back-End Developer; Karl Alnebratt, Front-End Developer; Charlotte Holmen, Front-End Developer; Caroline Hellquist Byrenius, Test Manager

Futurniture communications agency: Katarina Hjertonsson, Communication Strategist; Anna Elfström Brandt, Copywriter

INTRANET TEAM

Intranet team members shown here (back row): Janna Palmgren and Anna Elding; (middle row): Angelina Fredriksson, Karin Hedman, Paul Lernmark, Katja Engelhart, Ingeborg Granlund, and Lars Gustavson; (front row): Birgitta Elgemyr, Jessica Stringer Bodin, Katarina Willstedt, and Åse Karlsen.

HIGHLIGHTS ABOUT THIS WINNER

The Swedish Parliament intranet team set out to entirely refresh and reimagine an intranet that was previously news and information-based, and had no overarching direction in terms of content. A combination of technical developments, changes in the IT environment, and changes in users' needs and demands drove the team to redesign the intranet as a practical tool, promoting effective access to information.

Working closely with its main agency, Creuna, in designing and developing the site, the team made a promise to its users: "The intranet will make your work easier." The site, called Intranätet, supports 1,500 users in the Swedish Parliament, including members of parliament (MPs), party secretariats, and parliament administration. The team set out to create not just a great intranet, but also a great website.

- **User Research:** The team made an effort to involve all user types in the development effort. This is particularly impressive considering that the audience includes MPs. User experience design and user research weren't an afterthought, but a major component of and driving force behind the redesign effort.

  Conducting in-depth interviews was essential to understanding the site's content and functionality. The team took the time to understand the organization and its vocabulary, routines, concepts, and traditions as well as possible before even crafting interview guides. This prep work led to a set of efficient interview guides that let the team skip over background information during the interviews and thus focus exclusively on how work gets done at the organization.

- **Continual Stakeholder / User Involvement:** User involvement didn't end with interviews. Team members presented concepts to groups for feedback and buy-in, which helped them gain support for the intranet across the organization. They also did user testing, launched a beta version four months prior to the main launch, and wrote about the site's development in weekly blog updates. The one public demonstration they held drew 60–70 people. Launch activities included giving away a polishing cloth and asking users to complete a quiz using the new site.

- **Content Reorganization:** Team members eliminated and consolidated information from the previous site and worked quickly to identify key content. They reviewed metrics from the previous year to identify which information was most used, least used, and not used at all. The careful content review helped the team identify the most important content areas, as well as fully understand the breadth and depth of the available content.

  A staged rollout also helped reduce content; as the rollout progressed, the team realized that users did not miss some of the information that was slated for later release, which allowed them to make further content reductions.

  Content wasn't simply migrated from the old site; it was rewritten, edited, and formatted to adhere to the new concept, site structure, and templates.

- **Responsive Design Details:** Mobile access to information was important for the organization's users — especially for the MPs, who are often on the go. The site is designed for a usable experience regardless of device. Team members did more than just make content elements fit into different screen sizes, however. They thought about the details of the experience and how to make it work regardless of whether users access the site from a large or small screen.

One of the challenges of responsive design is to make back-end systems and complex functions work well within a responsive framework. The team struggled to translate some older systems, such as Lotus Notes applications, to mobile. Ultimately, project time constraints forced them to prioritize what could and could not be translated as part of the main project.

The team also addressed content as part of the move to responsive design. They decided to create fewer pages with more information to help mobile users with potentially slow download speeds. In-page navigational options also help mobile users access content on longer pages.

BACKGROUND

The Swedish Parliament's existing intranet had grown wild, "like a garden without a gardener," says project manager Jessica Stringer Bodin. It was primarily information- and news-based. The web editors focused mainly on news items on the homepage while local editors within the organization maintained the remaining content. Usability and accessibility had become neglected, and the information structure was "thorny and impenetrable," she says.

It had also become an intranet in which local editors' interests determined the scope of the content. As a result, it was difficult for users to find information and use intranet services.

Finally, because the old intranet launched in 2007, web technology and web use had experienced enormous developments. For example, back in 2007, there was no explicit need for the intranet to scale for use on mobile devices or tablets. So, some of the core reasons for launching an intranet redesign included technical developments, changes in the parliament administration's IT environment, and the needs and demands of users.

Goals

The goal of the redesign was to create a usable and accessible intranet that would transform the existing information-heavy site into an intranet that could serve as a practical tool for its users, as well as:

- Be an effective tool for both users and content contributors
- Promote cooperation and a sense of belonging

Challenges

The design team was fortunate to have an adequate budget and timeline for the project (one year), but it faced many challenges working with the content for the new site. "We started working on the content too late," says Stringer Bodin, "or rather, this work didn't get going fast enough even though we started early."

The redesign required wholesale changes to the content. Everything had to be rewritten and edited to fit the new design and accommodate the requirements of the new templates in the CMS. Stringer Bodin explains some of the other challenges the team faced, such as how to:

- **Emphasize relevance.** "Create an intranet in which all the target groups perceived it as relevant to just them."
- **Change the content to match the new concept.** "It takes time to learn to think in new ways!"
- **Get all the target groups involved.** "It was particularly important to involved the MPs, so that the project could monitor whether we were headed in the right direction and test proposed solutions."
- **Gain support and acceptance internally.** "We were doing something that was very modern and different compared with the previous version of the intranet, but also compared with other systems and digital services."
- **Support mobile devices.** "It turned out that the project came about just at the right time and there was a secure solution for mobile devises at the time of the launch."
- **Find technology solutions that work within the parameters of the existing IT infrastructure.** "Source systems and old technical solutions that were beyond our control turned out to be one of the greatest challenges. Our organization has some old IT solutions, which means that the intranet still has some solutions in iframes and as HTML snippets. There are currently no alternatives here. However, the Riksdag does have an open data website (data.riksdagen.se) which gives us opportunities to provide new and useful services."

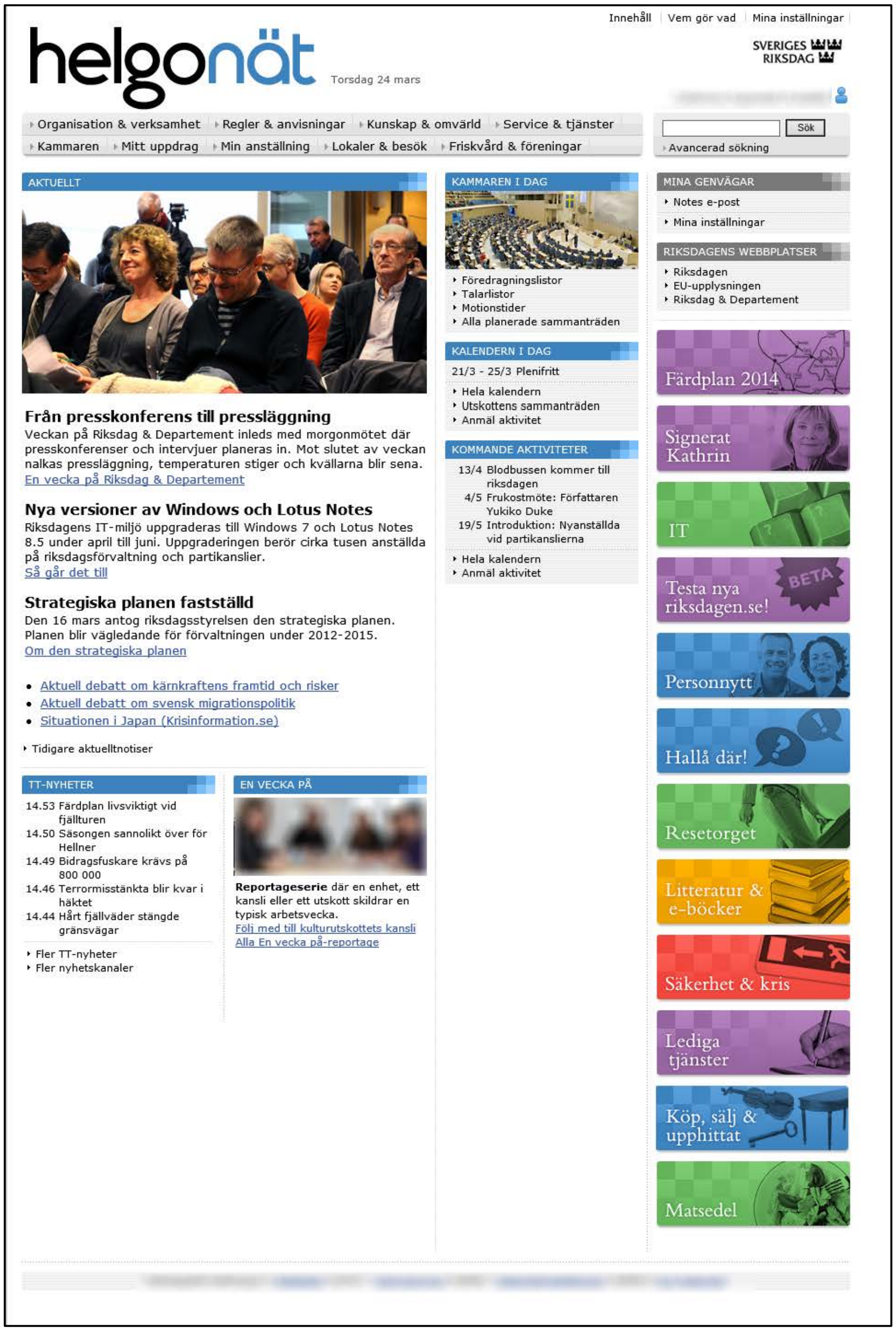


Image 146. Swedish Parliament Intranet: Homepage on the Old Intranet. Below the name *Helgonät* is the main navigation in two rows and the search box. The homepage consists of: *Aktuellt* (internal news and news from Sweden's national wire service, TT-news), *En vecka på* (one week at), calendars, and banners on the right. The banners didn't change often, and were more like a second navigation. *146_Swedish-parliament_01_start-page-old_version1.png*

Homepage

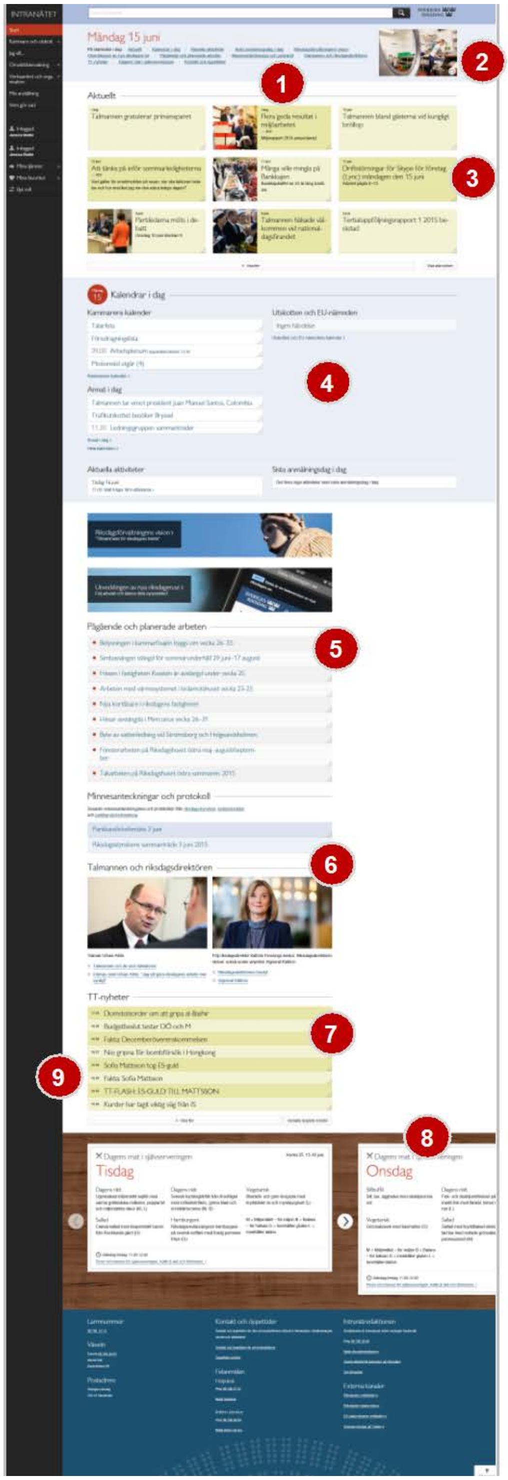


Image 147. Swedish Parliament Intranet: The New Homepage. *147_Swedish-parliament_02_home_live.png*

Homepage Highlights

The homepage was designed for efficiency, with MPs in mind. The page features calendars and committees, along with internal news at the top of the page and easy access to news from the TT news agency (Sweden's national wire service).

1. **In-page navigation:** The top of the page includes in-page navigation, helping users move quickly to the content of interest on the page. This facilitates direct access to content, rather than requiring users to scroll to locate content. This also acts as a table of contents, showing users the information available on the page.
2. **Picture of the Week:** The top right corner of the page includes a picture of the week; users can click an icon to flip the picture over and reveal a caption and further information. The picture always shows something happening in or around the parliament — ranging from an official visit from another country to a picture from the carpentry shop.
3. **Organizational news:** The news (*Aktuellt*) is role-based, aimed at the user's target group. Items are dated and images accompany the stories only when they add to the content. Only about half of news items include an accompanying image. This helps users scan through content quickly. Images support stories, rather than appearing simply because a template calls for their use.
4. **Calendar:** The site's daily calendar (*Kalendrar i dag*) is particularly important to MPs, who need to know what is happening each day. The calendar is divided into three main parts: chamber, committees, and other activities. A fourth section shows items that are new to the calendar or items that have registration deadlines on that day.
5. **Updates and Alerts:** Ongoing and planned work (*Pågående och planerade arbeten*) contains items that might affect daily work, such as a closed elevator or an IT system that is down. Any urgent items can be displayed at the top of the page as well, if needed.
6. **Memoranda and Messages:** Memoranda and protocols (*Minnesanteckningar och protokoll*) show the latest information from the Riksdag Board, Council for Members' Affairs, and meetings of the heads of the party secretariats, while the following section (*Talmannen och riksdagsdirektören*) includes messages from the speaker and secretary general of the Riksdag.
7. **Local and World News:** News headlines from the TT news agency (*TT-nyheterna*) are listed at the bottom of the page, to keep users aware of the latest news headlines. Although most intranets do not include such information on the site, in a governmental setting, it is important that users know the current news.
8. **Lunch Menu:** A lunch menu rounds out the page, showing users the day's selections and allowing them to navigate ahead to other days of the week. Items on the menu are marked as *M* (sustainable environment meal), *B* (healthy), *G* (contains gluten), or *L* (contains lactose).

9. **Look and Feel:** The site's visual design was inspired by the Parliament itself — an attractive environment with shelves of books hardbound in muted colors; beautiful paintings; and natural materials such as stone and wood. The black and blue areas show information and functionality. The red is used to focus on alerts, and earthy tones are used for news, menus, and quotes.

Role-Based Personalization

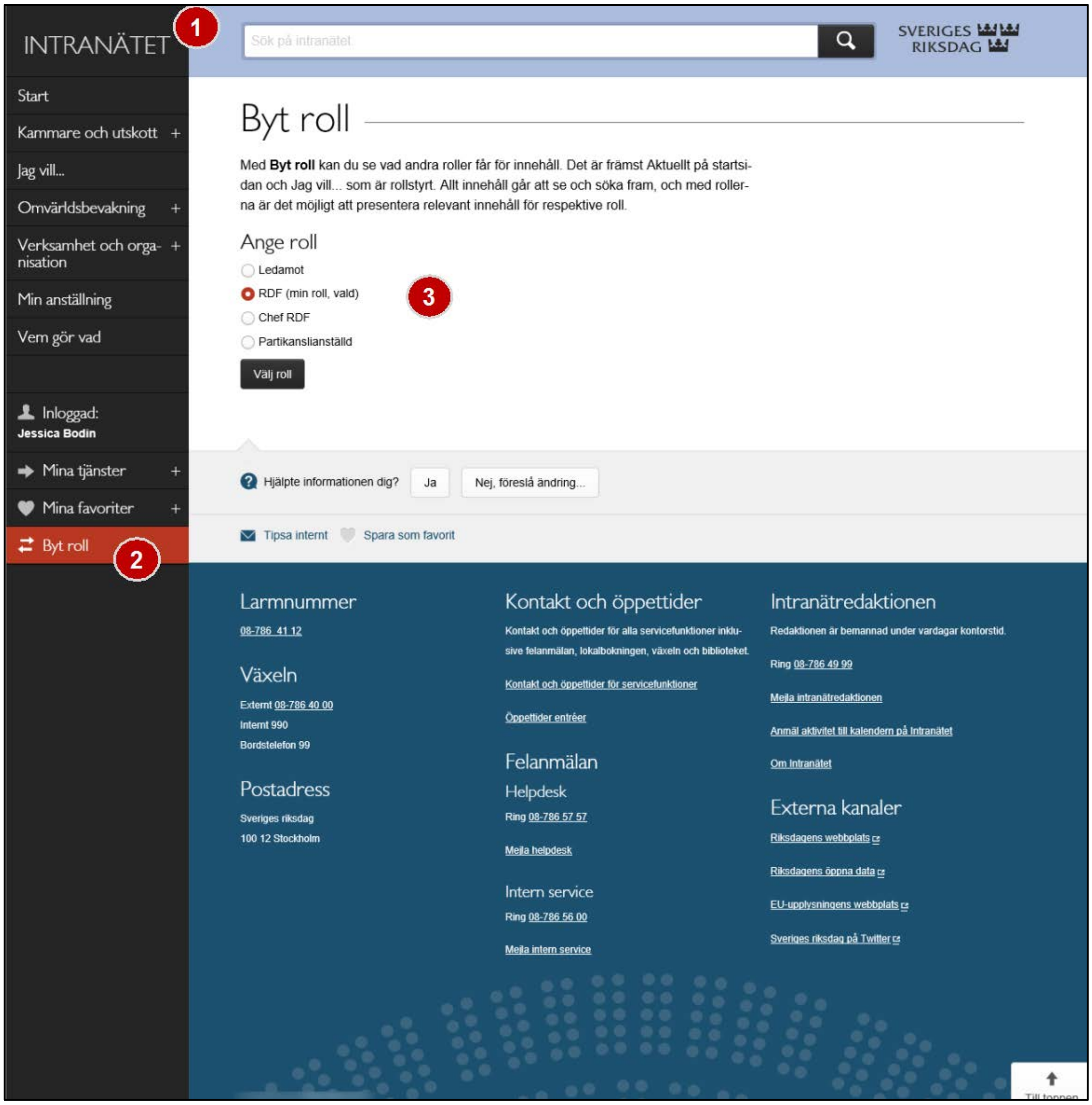


Image 148. Swedish Parliament Intranet: Role-Based Personalization.
148_Swedish-parliament_03_change-role_live.png

Role-Based Personalization Highlights

1. **Role-Based Information:** The entire intranet uses role-based personalization to give the right information to the right users. This is particularly critical given that some users are MPs, who need quick and reliable access to the information required to make important decisions.

   The change to role-based personalization helped the team cut content as it moved to the new design. If an audience could not be identified for a piece of content, it was removed. The change also influenced how content is written for the site. Previously, a single article had to address a topic from all users' points of view; now, a single message can be aimed at a single audience.

2. **Change Role:** Users can navigate to the *Byt Roll* link in the main site navigation to change their view of content. This is essential for employees doing administrative and support tasks, particularly those in support of MPs, who must see what MPs see in order to be of help.

3. **Simple selection:** Changing the view of the intranet is simple. Rather than going through a complex site structure to get to the feature, the *Byt Roll* link in the main navigation takes users directly to a page showing them the available viewing options. From there, a simple click changes their view.

"I Want To…" (*Jag vill…*) Section

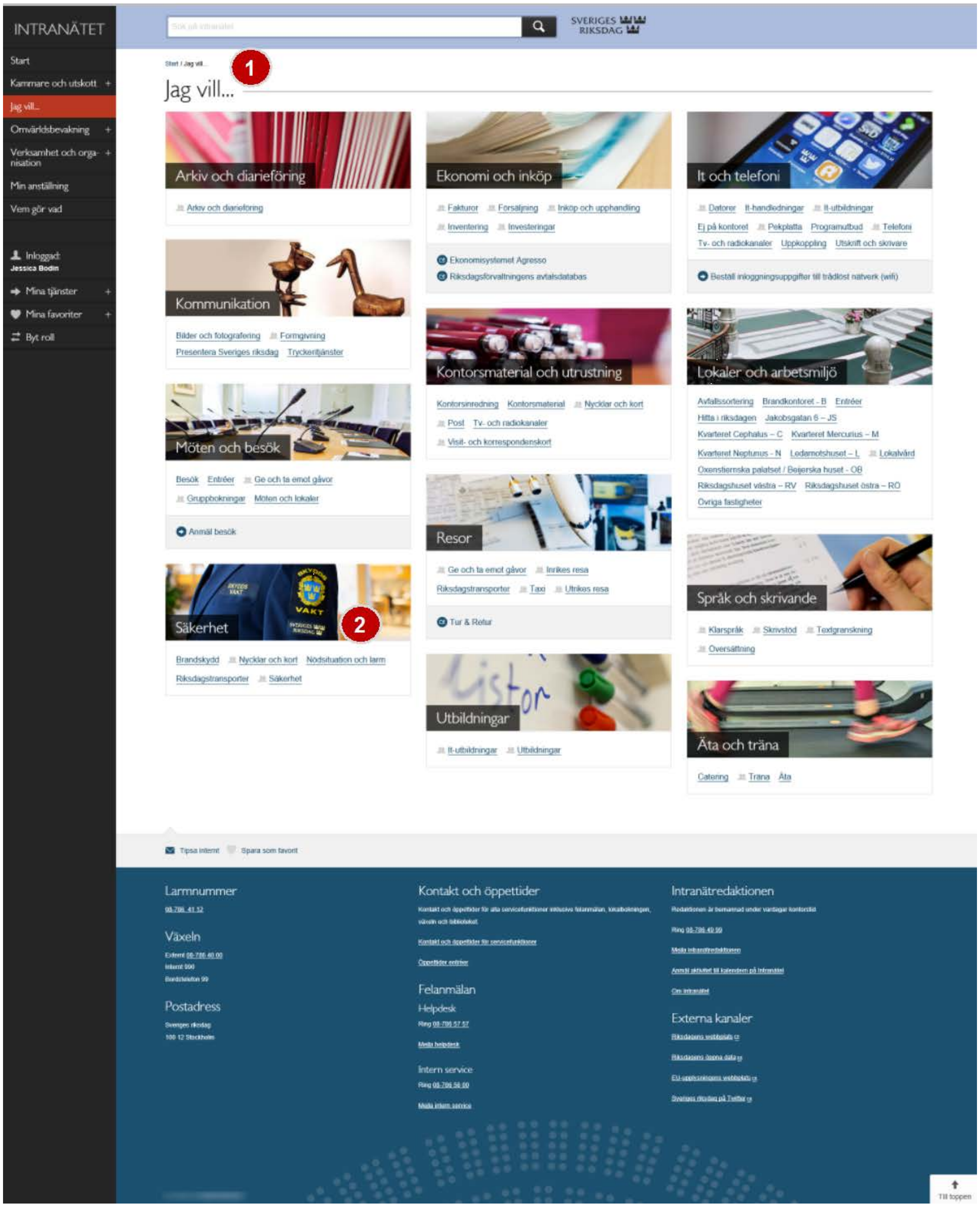


Image 149. Swedish Parliament Intranet: "I Want To…" Section.
149_Swedish-parliament_04_i-want-to-start-page_live.png

"I Want To..." (*Jag vill...*) Section Highlights

1. **Task-Focused:** The site structure is task-focused, but so is much of the site content. "I want to..." (*Jag vill...*) is one of the site's main sections and is focused on helping users do their jobs and access tools around the organization. The section gives users quick access to practical services and help for administrative tasks. The entire section is based on needs, rather than organizational structure.

   Topic-Based: The activities are organized by topic. The page design is intended to show users the range of activities they can easily access and accomplish through this site area. Images represent the type of activity shown; for example, an image of an actual Riksdag security guard represents security information, while an image of the Parliament building represents tasks related to the office/work environment. The people icon shows that the link goes to a role-based page where the content is intended for a specific role. The links located underneath certain topics are quick links to services or IT systems. The purpose of these links is to provide users with access to popular links as quickly as possible. The link underneath *Datorer och IT*, for example, is a link to one of the intranet's killer services where users can obtain a password for guests to use to access the WIFI.

“I Want To…” (*Jag vill…*) Page

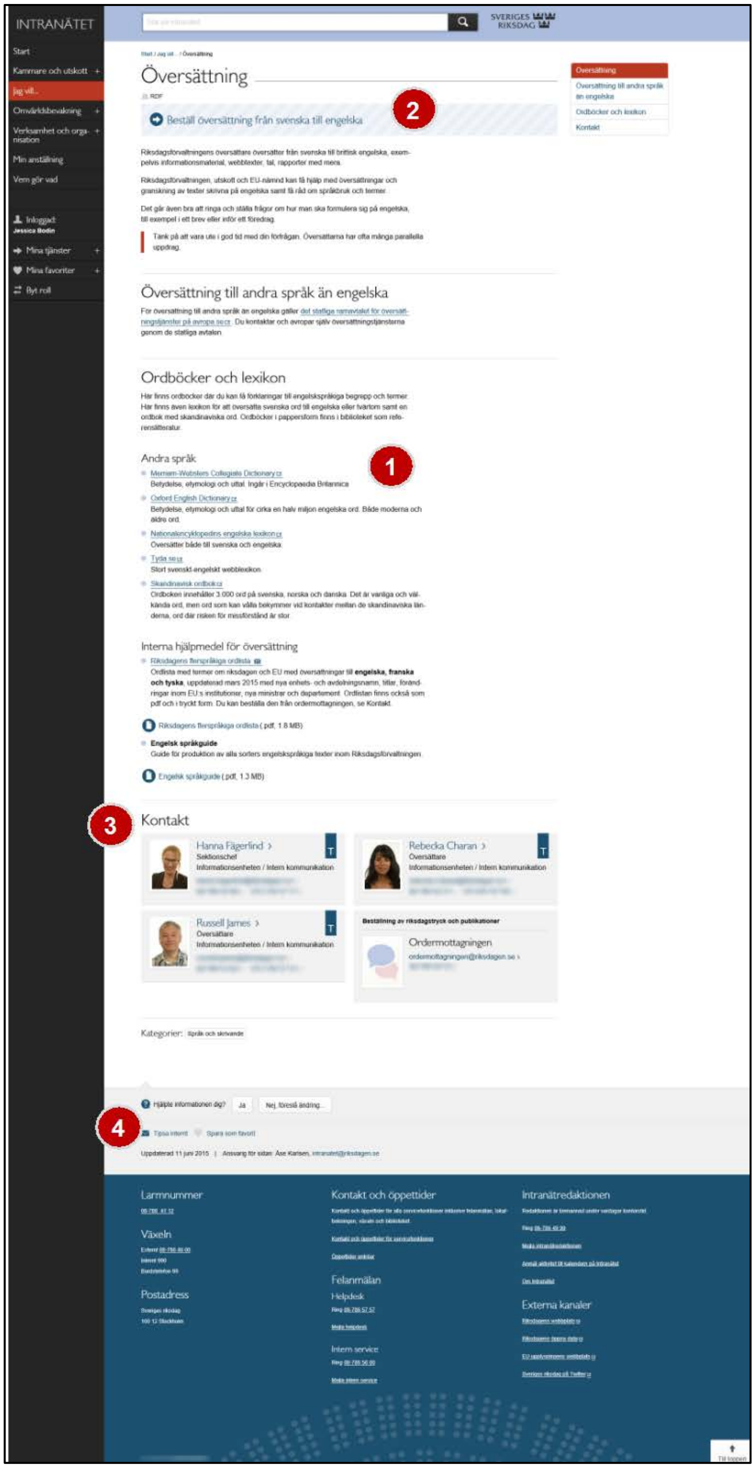


Image 150. Swedish Parliament Intranet: “I Want To…” Feature.
150_Swedish-parliament_05_task-page-I-want-to-live.png

"I Want To..." (*Jag vill…*) Page Highlights

1. **Central Resource:** Each page includes only one subject, with a clear call to action at the top of the page and a consistent structure. The team decided early in the development process to link to external systems rather than integrate them. The intranet is the tool that helps users access tools and provides support information for systems.
2. **Call to Action:** Each task-focused page includes a call to action at the top of the page. The goal here is to help users who are completing recurring tasks and do not want or need to read everything on the page. This also helps prioritize the call to action in the responsive design's mobile view.
3. **Contact Information:** All task pages include contact information at the bottom of the page.
4. **Feedback:** Every page of the site, whether content- or task-focused, includes a "Did this help you?" (*Hjälpte informationen dig?*) link, along with the date the content was last updated and the name and email address of the content owner.

Content Page: Plain Swedish

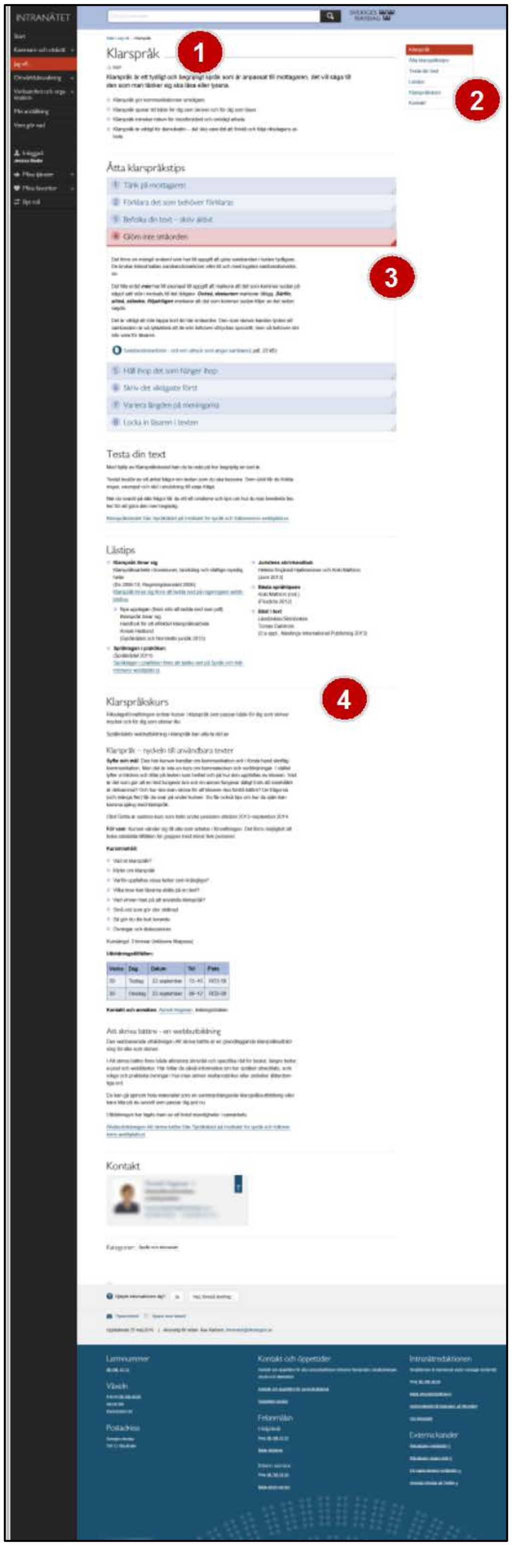


Image 151. Swedish Parliament Intranet: Content Page (Plain Swedish Information). *151_Swedish-parliament_06_plain-swedish-page_live.png*

Content Page: Plain Swedish Highlights

1. **Plain Language:** Part of the content approach was to ensure that information was written in "plain Swedish." This was an initiative prior to the redesign — and a governmental focus as well — with the goal being to make information easier to read and understand.
2. **Table of Contents:** Longer content pages include a table of contents to the right on larger screens and at the top of mobile pages. This shows users the available page content and gives quick access to content of interest, which is particularly important on long mobile pages.
3. **Accordions of Content:** To accommodate users on smaller screens in particular, in-page navigation — such as expanding and collapsing accordions — helps limit the space content consumes on the page. On this page, the accordions contain eight tips for using plain language: think about the reader, explain what needs to be explained, write actively, don't forget the little words, keep related content together, write what's most important first, vary sentence lengths, and draw the readers into the text.
4. **Limiting Content to One Page:** Each topic on the site is contained within a single page to help users find all the information they need in one place. In this case, the page contains tips, a way to test text, information about a plain language course, and contact information to learn more.

Chamber Calendar

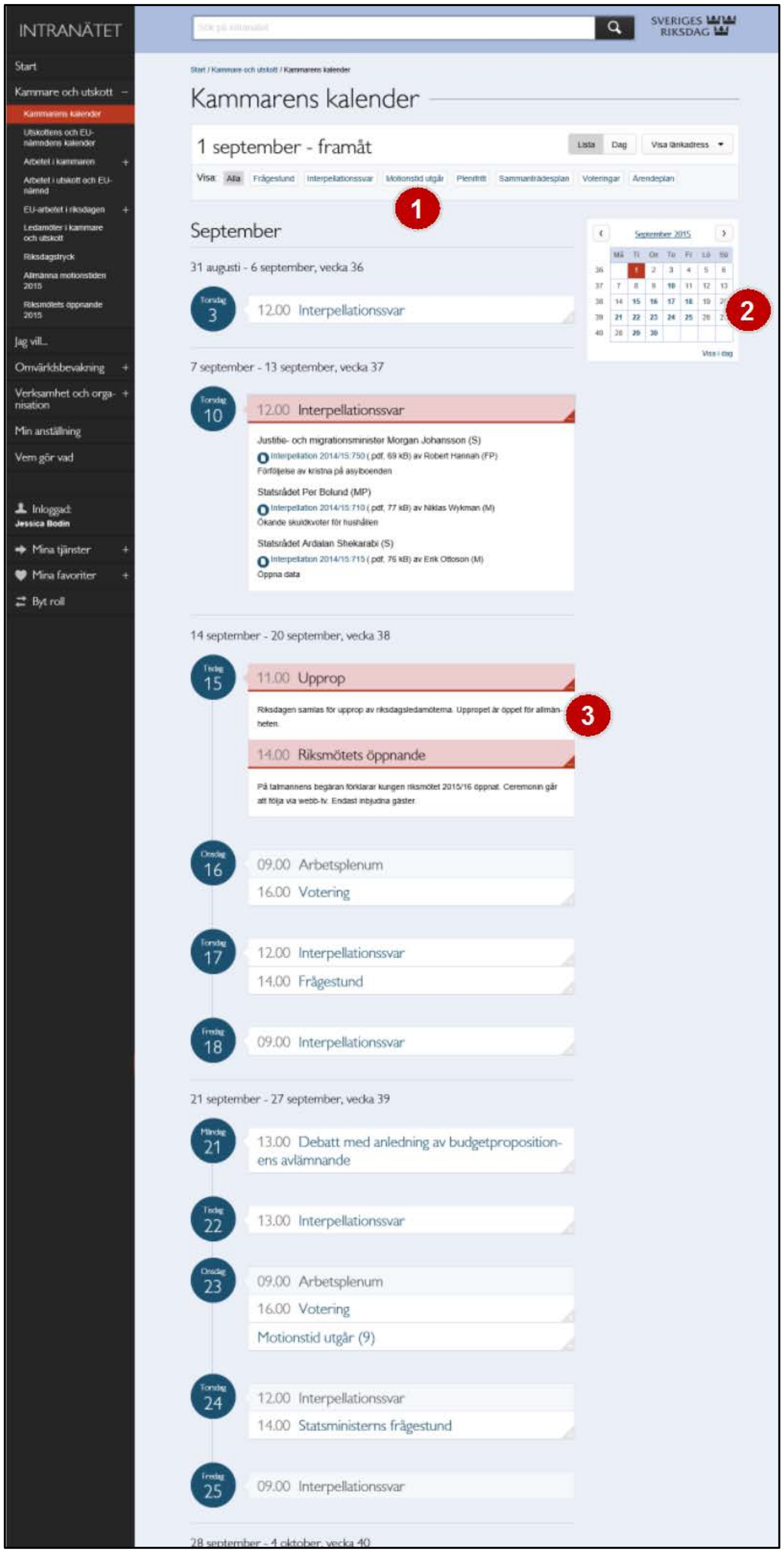


Image 152. Swedish Parliament Intranet: Chamber Calendar.

152_Swedish-parliament_07_chamber-calendar_live.png

Chamber Calendar Highlights

1. **Filtered View:** The calendar's default view starts with the current day at the top. Following that, the calendar shows every day that has a calendar item (the screen above, for example, shows a full year ahead).

   Users can click on filters at the top of the page to see specific types of calendar items, such as:

   - ***Frågestund*:** Question-and-answer session
   - ***Interpellationssvar*:** Answers to interpellations
   - ***Motionstid utgår*:** Private members' motions period expires
   - ***Plenifritt*:** No plenary meetings
   - ***Sammanträdesplan*:** Planned plenary meetings
   - ***Voteringar*:** Votes
   - ***Ärendeplan*:** Schedule of parliamentary business

   The calendar pulls data from several sources and consolidates it in one central location.

2. **Date Picker:** Users can select a particular date via the calendar at the side of the page.

3. **Expand for Details:** Users can select any item to view more detail. The three items shown in red are expanded to show the full calendar entry information. Where appropriate, calendar items link to associated committee reports and documents.

People Directory

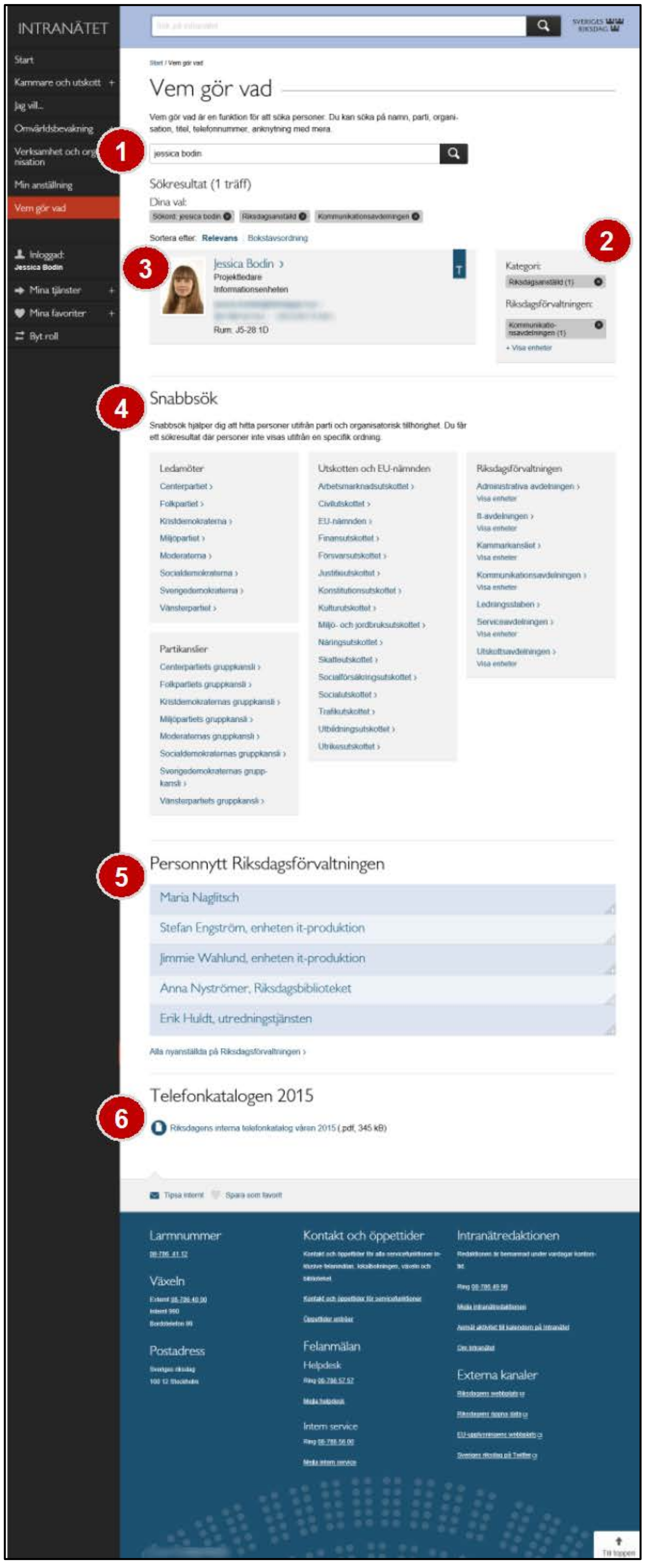


Image 153. Swedish Parliament Intranet: People Directory.
153_Swedish_parliament_08_people-directory_live.png

People Directory Highlights

1. **Search:** As on many intranets, the people directory is one of the most popular areas of the site. This section, called "Who does what" (*Vem Gör Vad*) makes it possible to quickly find others at the organization. Employees can use the main site search to find colleagues or can navigate directly to the people directory from the main site navigation. Users can enter a name, party, area of the organization, title, or phone number to search.
2. **Filters:** Filters appear on the right side of the page; selected filters appear above the search results. This helps users narrow results to find the desired person.
3. **Results:** Employee results include a photograph, the person's name and job title, and basic contact information, including email address, phone number, and room number.
4. **Organizational Chart:** The quick search (*Snabbsök*) allows users to quickly search the organization, which gives them an overview of how the Riksdag is organized.
5. **New Colleagues:** An area for "new people in the administration" (*Personnytt Riksdagsförvaltningen*) gives information on people who have recently started work there.
6. **Telephone Directory:** The *Telefonkatalogen*, or telephone directory, is a PDF file of all phone numbers that users can print out; the intranet team describes it as an "old-fashioned remnant."

Search

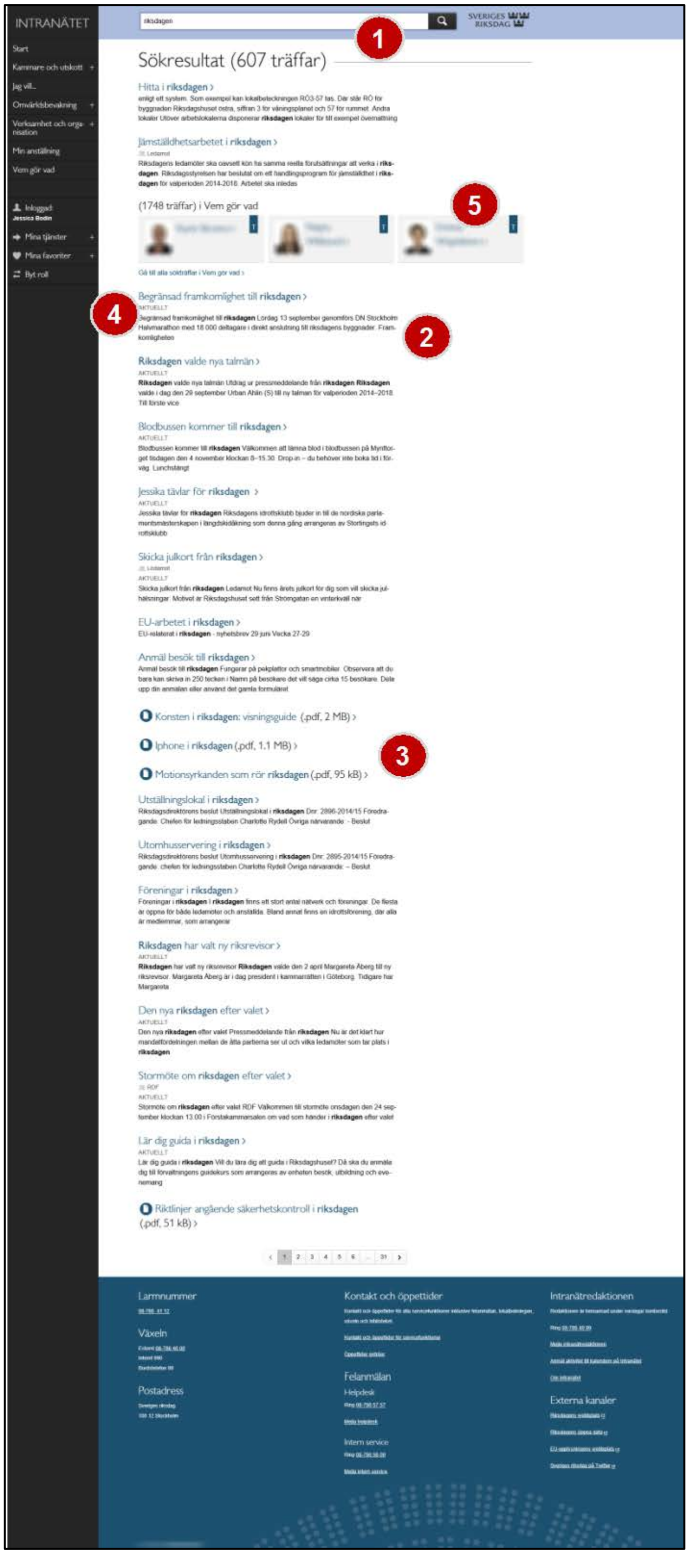


Image 154. Swedish Parliament Intranet: Global Search.
154_Swedish-parliament_09_global-search_live.png

Search Highlights

1. **Search Box:** The search box appears at the top of every page of the site, and in every view, including the mobile view. The search is built using Solr. The index is automatically updated when editors change or add content, and it consolidates information from several systems. A web editor is in charge of search relevance, adjusting keywords and making tweaks based on analytics, statistics, and user feedback.
2. **Results:** Most results are shown with a linked headline and a brief summary.
3. **Documents:** Documents are shown as a link directly to the file.
4. **News and Calendar:** If items will lead to a news story or to the calendar, the results indicate this with the label *Aktuellt* or *Kalender*, respectively.
5. **People:** To connect people more quickly, the third result is always a list of three contacts within the organization related to the search query. The result shows the three people, along with a link to view more if needed. Users can also conduct a people search through the "Who does what" (*Vem Gör Vad*) tool.

Mobile View

Image 155.
Swedish Parliament Intranet: Mobile View of the Homepage. *155_Swedish-parliament_10_mobile-home_live.png*

Mobile View Highlights

1. **Responsive Design:** The site uses responsive design to serve content regardless of screen size. Almost all of the site content is available on mobile, except for a few older systems (mostly Lotus Notes applications). Although these items are still slated to be translated into a responsive experience, time constraints required that the team make choices based on priority.

2. **Navigation and Search:** On larger screens, such as tablets and desktops, the global navigation appears on the left side of the page. This maximizes the space available for content; all designs use the full page width to display content. In the mobile version, the navigation is tucked behind a three-line hamburger menu to save space, while still providing easy access to site navigation.

   Search is prioritized in the mobile design, as it is a quick way for mobile users to access information. The team included autocomplete in the search box in part to help mobile users, who are more likely to make typographical errors.

3. **Touch Targets:** The entire site was designed with touchscreen users in mind, so all items have large touch targets to aid navigation.

4. **Brief Content and Attention to Detail:** Team members cooperated closely to design a site that would work across all screen sizes. They focused on content volume and brevity, download times, and improved search. They also paid attention to small details, like text appearing on the images in larger designs and below the images in smaller designs. They also advised content creators to avoid graphics and illustrations that would not be legible at smaller sizes. Even the details of how instructional text was written was addressed, such as avoiding phrases like "the image on the right" or "the menu on the left" since layouts shift as screens shrink.

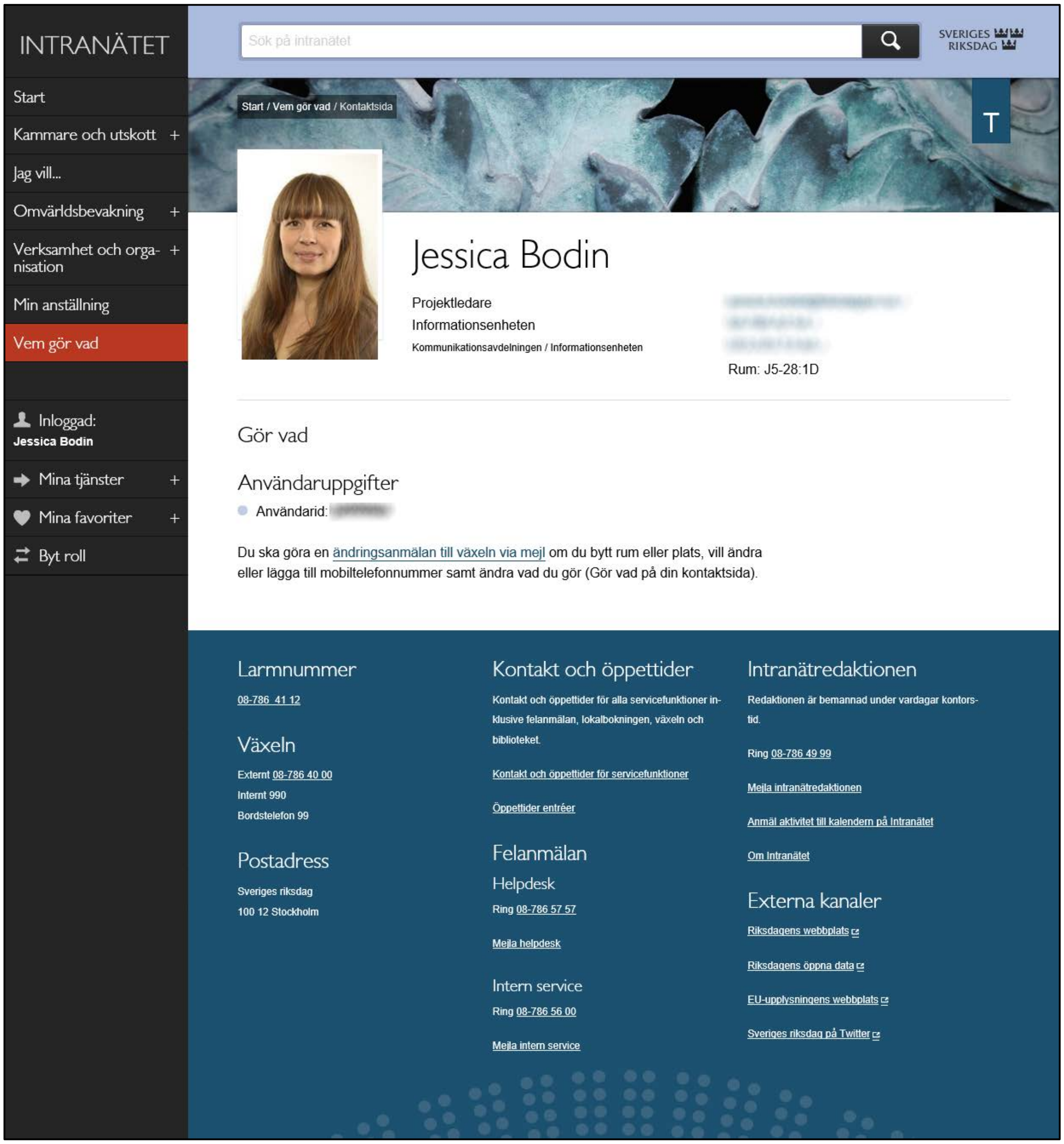


Image 156. Swedish Parliament Intranet: Employee Page. Members of Parliament have the same presentation on the employee page, but with more content about committee assignments and so on. *156_Swedish-parliament_11_employee-page_live.png*

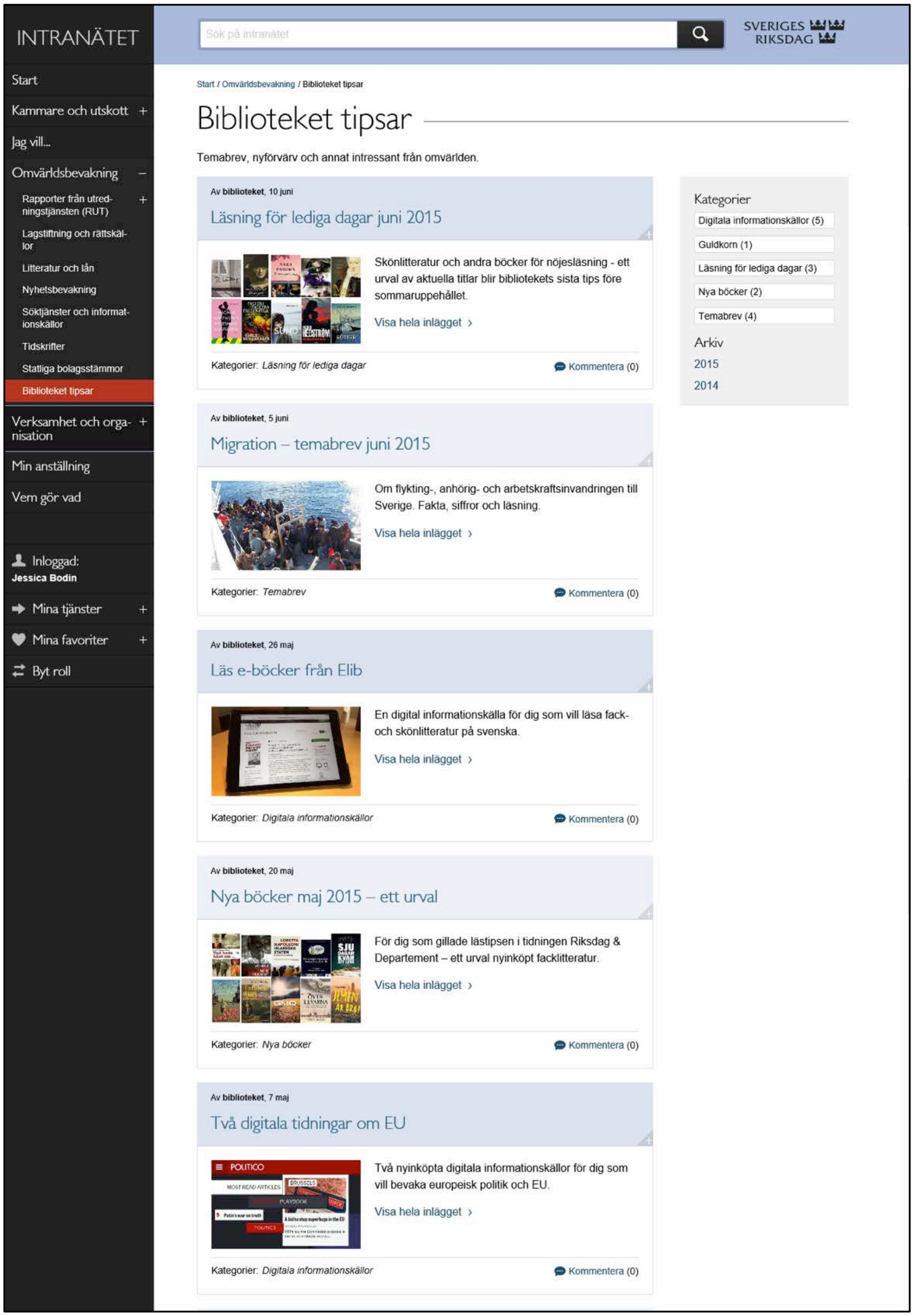


Image 157. Swedish Parliament Intranet: Blog Page. The Parliament intranet has blogs that let users comment on posts. *157_Swedish-parliament_12_blog_live.png*

Evaluating Organizational Needs

When the design team began its work on the new intranet, it already had a trove of prior research from which to draw insights. A preliminary study (conducted in 2011) delivered a comprehensive analysis of intranet needs; it also analyzed the site's target groups and delivered a first draft of a new intranet concept and simple wireframes of new design ideas. Further, an earlier 2010 study had evaluated the old intranet, highlighting usability and accessibility shortcomings. This evaluation also identified the needs of staff in the Riksdag Administration; the 2011 needs analysis thus focused on the other primary target groups, including MPs, party secretariats, management, and other key people.

A visualization of the target groups and their needs for the Swedish Parliament intranet.

When the redesign project kicked off, the first thing the in-house project team did was to inventory all the pages and functionality available on the existing (old) intranet. For each function and page, team members analyzed the metrics from the previous year (2012). This analysis showed which functions were most used, which were trending and which were not used at all. This information let the team prioritize the most important functionality and gain a holistic view of the content.

These initial research efforts resulted in three important policy documents that helped inform the project’s creative work: a content and functionality specification with an associated metrics analysis, a needs analysis, and a concept description.

The team also conducted a zero benchmark measurement of the intranet during the project’s planning and start-up phase, using the think-aloud method to test how easy it was for users to accomplish common tasks. This helped the team identify problem areas in the old intranet, so they could improve them in the new one.

Prioritizing Needs

Prioritizing the initial tasks wasn’t difficult. With all the research material they had in hand, team members knew a lot about the top tasks they wanted to focus on, and which were less important and could be given lower (if any) priority in the new design. They also wanted to liaise with content owners to ensure that the new intranet would have the right content and functionality to meet user needs.

One critical need emerged early on: users wanted intranet access on their mobile devices and from locations outside the Riksdag, rather than only on their computers at work. This need was especially important for MPs, who are often on the move.

Comprehensive Surveys

The Swedish Parliament partnered with Creuna, a full-service digital agency, for the redesign effort. When the Swedish Parliament Administration kicked-off the project, it asked Creuna to conduct a survey to evaluate the organizational needs that the new intranet would have to meet. Team members explain how the survey was carried out:

- **In-depth interviews:** “We conducted in-depth interviews with representatives of the different target groups. We realized quite quickly that it would be a relatively extensive study as the operations are complex and the conditions of the target groups completely different. The Swedish Parliament (like many other organizations in the Swedish public sector) has a good understanding of the need to meet the needs of users in various digital channels, and it was important to carry out thorough groundwork. The in-house team also understood the importance of achieving broad support within the organization, and this was something an extensive interview study could also contribute to.” (Katja Engelhart, UX Lead)
- **Extensive preparations:** “Before Creuna could even start writing the interview guides, they were given training about the work of the Swedish Parliament, including plenty of background reading and a number of preparatory discussions with key persons in different parts of the organization. It was important that we understood the operations and processes in order to be able to ask the right questions.” (Birgitta Elgemyr, Web Editor)

"The Swedish Parliament uses a number of technical terms and concepts; there are many traditions and routines. The training we were offered made us better prepared to lead the interviews and gave us a good basic understanding of part of the task ahead of explaining and clarifying on the intranet. If this was complicated for us, it would naturally also be difficult for new employees and MPs." (Engelhart)

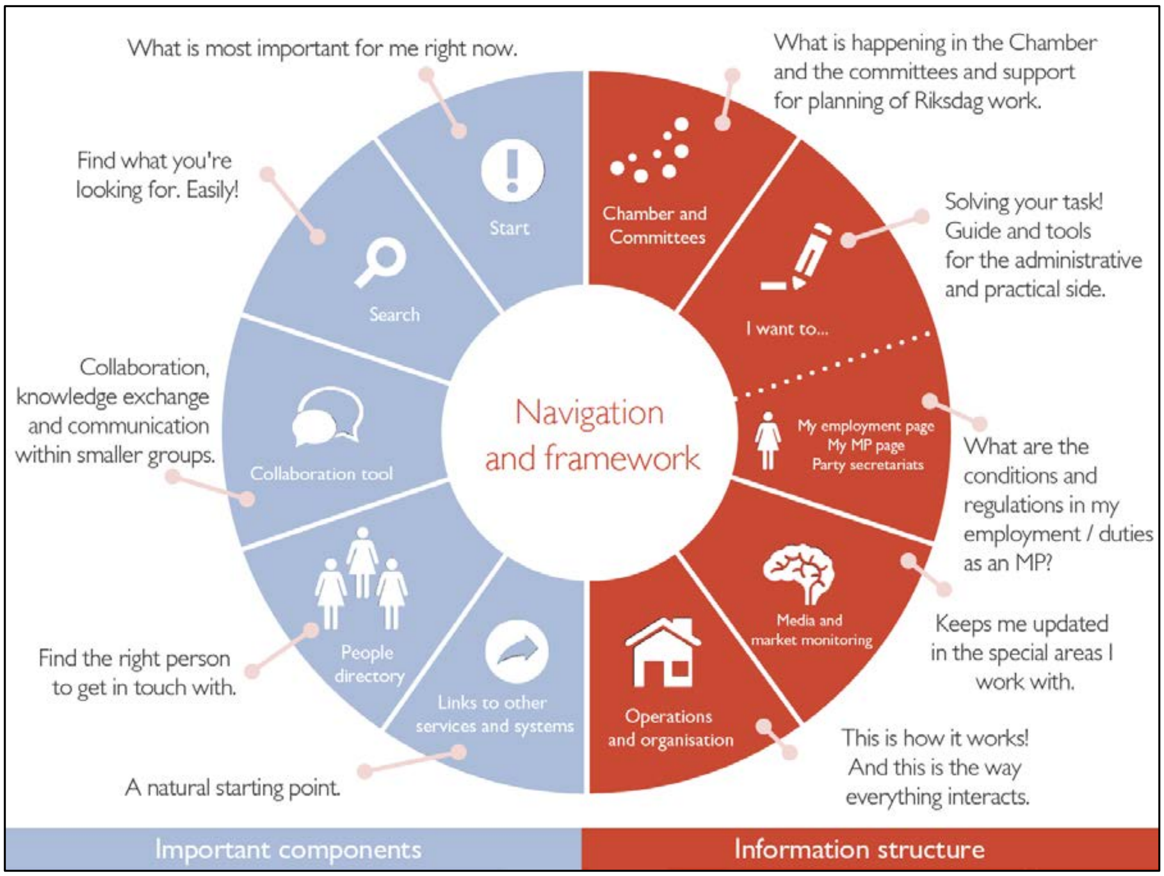
- **Adapted interviews:** "A factor that distinguished this survey of needs was that we prepared seven to eight completely different interview guides, all adapted to the target groups and sometimes even to specific roles. We designed the interviews on the basis of each group's work procedures and tasks in order to ensure that we didn't miss anything important. It took a long time to prepare the various guides with the in-house team, but once this was done, the interviews flowed very well. We felt that the interviewees appreciated the fact that we put ourselves in their shoes, and they didn't need to waste valuable time explaining things to us during the interviews." (Engelhart)
- **Interviews with a focus on flows and needs:** "During the interviews we talked very little about the actual intranet (the old one and the future one) and the specific needs connected with this. Instead, our questions focused on working methods and information and communication flows within the parliament and the administration, and what needs there were regarding information, support, and communication. This was in order not to get stuck in old patterns (which is easily done when using something that already exists as a basis) and to really understand and identify where the challenges lay." (Engelhart)
- **Adapted results:** "The results of all the interviews were collected and analyzed. We hadn't decided in advance exactly how we'd document the results. Instead, we wanted to be able to decide this on the basis of what emerged. We saw that personas would either be too generic or too specific to be of help in this case. Instead, we identified general needs, plus a number of common tasks and flows which we would then be able to focus on in our coming work, and which we could later follow up in order to see how much more efficiently they could be implemented on the new intranet." (Engelhart)
- **Ambition of measuring exactly in time and money:** "With these 'common tasks' as a basis, we looked for ways of being able to measure the exact time savings (and thus the value) of simplifying and making available these important tasks. On account of limited opportunities in our analysis tools, we decided to carry out this measurement manually in the user tests. A zero benchmark measurement was carried out on the old intranet, where we measured how long each "common task" took (even if several tasks couldn't be carried out at all)." (Engelhart)

This kind of in-depth survey process can yield a lot of information — maybe even too much — for a team to really interpret and act upon; however, in the case, the whole project team found the survey data to be a critical piece of the redesign process.

"When we had the preliminary study ahead of us and were in the middle of the interview period, it sometimes felt as though we had very many interviews and a little too much information to process," says Engelhart. "But when we look back after the implementation of the project, we all agree that it was incredibly well-invested time."

The knowledge gained from the needs survey has followed the team all the way through the project. The volume of interviews gave team members a deeper picture than they would have obtained by sticking to a more traditional volume of, say, five to seven interviews per target group.

"We felt that the individual interviews worked best," says Engelhart. "In the group interviews with two to three participants, there was a risk that some participants didn't get the same chance to speak. And, even when we thought that people had similar situations, it sometimes turned out in the interview that this wasn't the case."



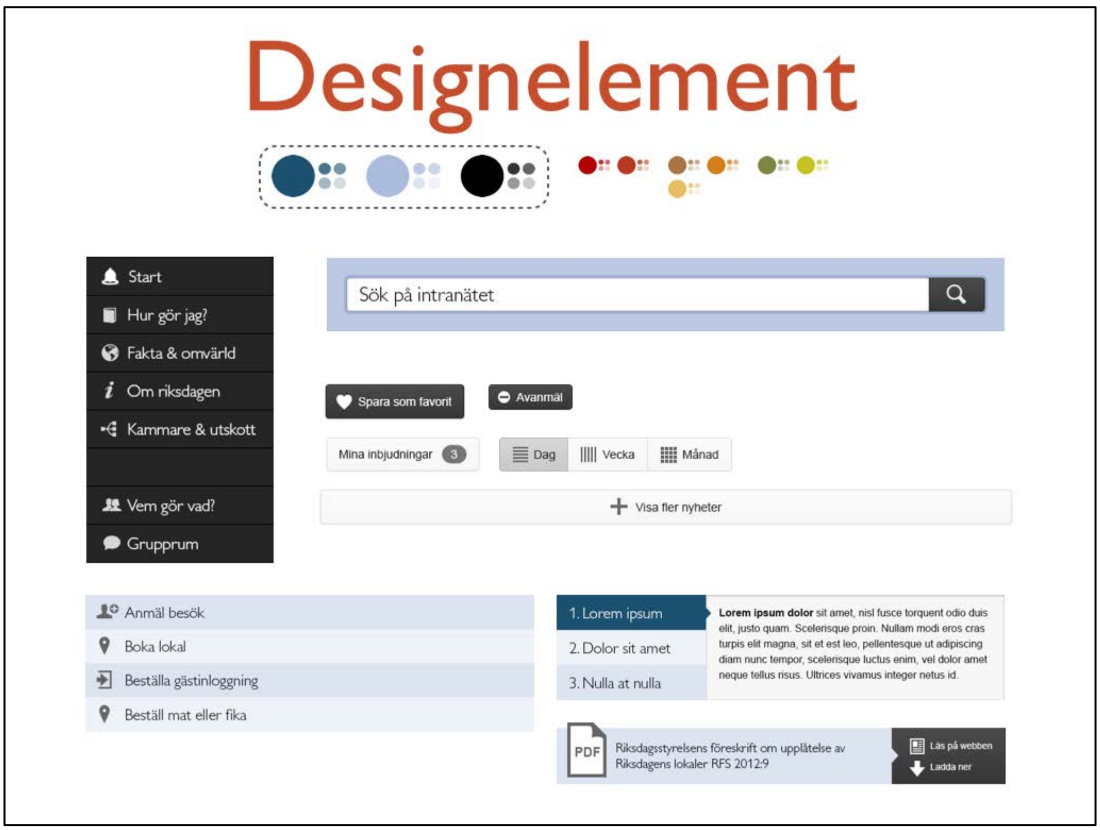
An illustration of the top-level information structure of the intranet (translated into English) developed early at the start of the project and based on the intranet strategy. It shows the overall information structure and other important intranet parts and functions.

Generating Design Ideas Through Workshops

The team held a series of workshops to generate design ideas and visualize how the new intranet and its various sections would look and feel, as well as how the intranet would work. The design workshops were held with key people in the Swedish Parliament and consisted of inspiration exercises. These sessions provided an environment in which the design team and the participants could jointly determine the new intranet's user experience.

The workshops included discussions about how editors would interact with the new intranet and the idea of having unique design patterns for different sections. The participants discussed (and designed) ideas for how role-based personalization would work and how to make it more efficient. The workshop sessions also helped the team produce checklists to support design, development, and content during the implementation phase. These checklists consisted of a set of guiding principles for team members to keep in mind as the project progressed from concept to fully realized intranet.

The intranet's design is based on the Swedish Parliament's graphic design style. Designers took inspiration from the parliament's physical environs, with bookshelves full of hardbound books in muted colors; beautiful paintings; and solid natural materials, such as wood and stone.



Examples of the design elements used for information and basic functionality on the intranet.

Examples of red-toned design elements used to draw focus or alert users of important information.

Examples of design elements related to fast-moving, pleasant content such as news and menus. These elements use an earthy range of colors.

Direct User Involvement

The design team employed several research methods that involved users directly in the design process, including:

- **Reference groups:** Two groups of user representatives, called *reference groups*, provide feedback and buy-in on an ongoing basis, and were first deployed during the design and development phase. During these initial reference group sessions, the groups were also asked to react to sketches and design proposals. The team found this approach most effective. “It worked better for the reference groups to react to something concrete — like sketches — rather than discuss needs in a general way,” says Angelina Fredriksson, Senior Interaction Designer. “but we learned a lot about needs and priorities and were able to take with us their thoughts to our coming work.”

- **Participatory design:** Although the reference groups provided good ideas, the ideas lacked detail about specific functionality. To refine the general thoughts into concrete solutions, the design team invited specific individuals to join team members in creating certain functions side-by-side.
- **User tests:** User tests were carried out in two rounds: ahead of the launch, and a few months after launch, when the content was in place and users had begun to acclimate to the new set-up.

  The first test focused on usability and navigation. The content wasn't in place, and the search engine hadn't yet been tuned. The second test gave the team an understanding of how the content and structure worked. The results gleaned from these sessions were documented in a table format, which let team members easily compare answers from different test subjects. Important functions were also tested at some of the reference group meetings.

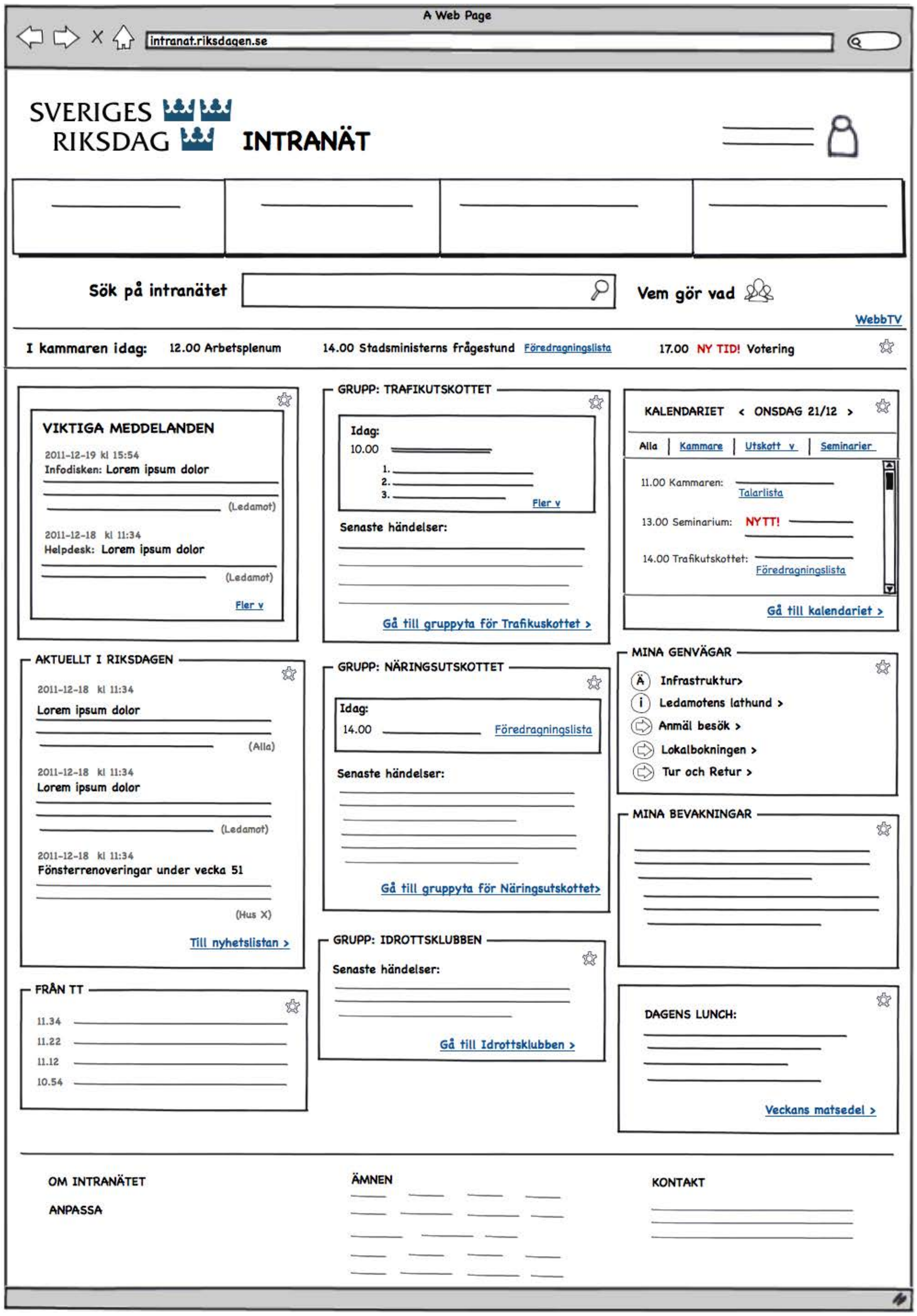


Image 158. Swedish Parliament Intranet: Early Sketch of the Homepage Design. This shows a first draft of a possible homepage. It was created to help visualize user needs. *158_Swedish-parliament_13_early-sketch-prestudy.png*

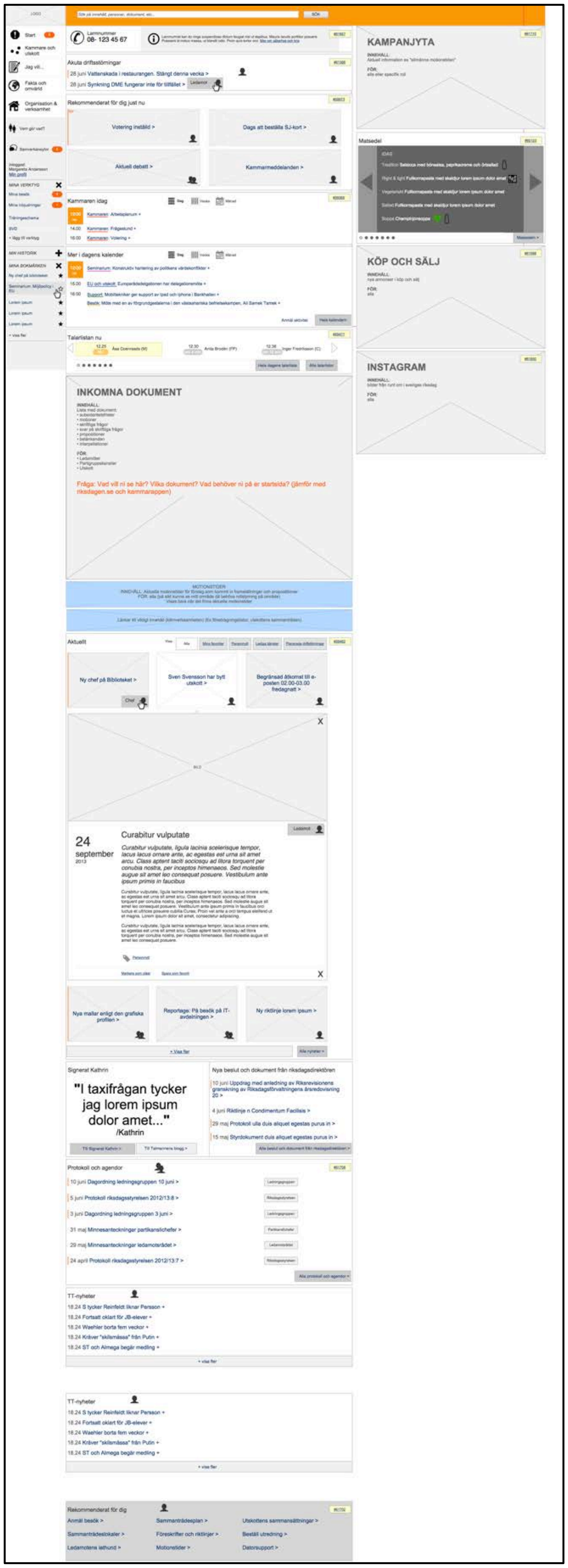


Image 159. Swedish Parliament Intranet: Homepage Wireframe. This shows an early wireframe of the homepage created shortly after the project started. Some of the functionality has been detailed and the project tool is referred to with a file number, while other parts are just in the early idea stage. *159_Swedish-parliament_14_early-wireframe.png*

Developing an IA Structure

The project's primary goal was to create a task-focused intranet, so the structure and navigation had to support that goal. With that in mind, the team conducted card-sorting exercises within the project group and with members of the editorial team, resulting in a new basic structure in which (almost) all the important elements had a specific place. This wasn't an easy task, but it proved to be worthwhile.

"We took the 100 most common tasks and the most visited pages on the old intranet and sorted them," says Katja Engelhart, UX lead, Creuna. "This was a challenge in an organization like the Swedish Parliament, where there were enormous amounts of content. In connection with this, a large culling process was also carried out; the content volume needed to be drastically reduced."

"We wanted a shallow and broad information structure and tried to keep it no deeper than three levels. After card sorting, we made a detailed information structure with all content and functionality," says Stringer Bodin. "Without the detailed structure, it would have been almost impossible for the web editors to change and rewrite the content."

A good example of the shallow information structure is the "I want to..." (*Jag vill…*) section, which surfaces important content on a sub-homepage.

Other design decisions were made that affected wayfinding, including:

- **Menus:** The main menu is to the left on bigger screens and has a powerful visual expression so that users perceive it as a toolbar. (On small screens, such as smartphones, the main navigation is a hamburger menu).
- **Personalization:** Personalized functions have been given their own expression and can be reached via the main menu and the homepage. The underlying idea is that the entire intranet is personalized; there isn't a separate "My Page" or anything like that.
- **Role-based solution:** The role-based solution is important both for making intranet content more relevant to each individual and for reducing the amount of information that washes over users. The content shown by default is based on the user's role, but users can find any content (for their role or anyone else's) through the search function. Users can also choose to temporarily change roles and see the intranet through someone else's eyes. This is important in the Swedish Parliament, where many people in support roles need to see the information directed at MPs.

Image 160. Swedish Parliament Intranet: Top-Level Navigation Menu. *160_Swedish-parliament_15_top-level-navigation_live.png*

Adoption and Buy-in

The design team tried to create and maintain an atmosphere of transparency throughout the project, demonstrating the new intranet to users — even at early stages — and showing how it was developing all the way through to the beta release. Users were able to see and test everything as it was developed.

"We wanted the transition from the old to the new to be as smooth as possible," says Stringer Bodin, "especially as we knew that there were many people who liked the old intranet and they had learned where to find what they needed."

The team also had a communications officer dedicated to the project who prepared a communications plan that the team followed throughout.

Stringer Bodin describes the team's various outreach efforts:

- **The project's Steering Group:** "The Steering Group was instrumental in obtaining broad support during the entire project. They helped by ensuring that we obtained broad support for our work with the new intranet at the right level in the organization at all the different stages of the project. They always encouraged us to do a little more in our efforts to gain support for the project and pointed out how important it was for us to present and fully explain each stage prior to implementation."

- **The Management Group:** "When seeking support in the organization, we always started with the Management Group. They always got to see and ask questions about the new intranet before other groups. This worked very well as they, in turn, could propose what other contexts and forums we should make presentations in."
- **Beta version:** "We released a public beta version of the intranet approximately four months before the launch. The first version was very limited but gave an indication as to what it would look like. We then developed the beta version until it had full functionality and, in the end, it was launched as the new intranet. Everyone in the Swedish Parliament was able to test the beta version and give feedback."
- **Development blog:** "The beta version contained a development blog where we could write about what we were doing in the project and where we described the various services and content that was published along the way. We wanted the development process to be as transparent as possible, and we tried to publish one blog entry a week from the time the beta version went public. Certain entries received many comments, and others none. It depended on what we wrote about. Many people, for example, found the font size extremely large, and this is true if you compare it with the old intranet. We no longer hear that comment any more as everyone has gotten used to it. It was important that we could argue in favor of the choices we had made when we introduced new services and design in the beta version and the development blog."
- **Public demos:** "We invited all interested parties to the project's sprint demos, and there were often around 25 people who came to listen and put questions."
- **Launch activities:** "On the day of the launch, we stood at the main entrances to the parliament and welcomed everyone to the new intranet with a polishing cloth and a quiz which could be solved by using the new site. When they switched on their computers, the new intranet appeared, and mobile devices had a new icon with which to start the intranet."

Strategies for Responsive Design

Adapting the site for a responsive framework created a unique set of challenges for the Swedish Parliament team, specifically around the way they organized and thought about the content.

"Responsive design has affected how we think about the content on a page," says Stringer Bodin. "We have pages that we call 'task pages,' and they are organized so that calls-to-action are always at the top of the page. These may include recurring tasks, where the user doesn't want to read everything on the page, but just wants to get to what needs to be done." An example of this is the popular "report a visit" service; it appears at the top of the page — which is especially important on mobile devices — so users don't have to do a lot of scrolling.

The Swedish Parliament team has some good advice for other design teams trying to create a responsive site: allocate time to address content needs early on in the project — before you make drafts of the structure and interaction design. "Decide what's important to include," says Stringer Bodin. "Also, cull and minimize so that you only include what is really needed on the new site/intranet."

Another thing that she says is important to think about is how to keep content on a particular subject together so users don't have to search in several different places to get an overall picture. To that end, it's preferable to have slightly longer — but fewer — pages, and an interaction design that supports this approach.

"As I see it," she says, "the information structure and navigation also play an important role in responsive design. The idea is that navigation should work just as well on smaller screens. The user wants to see what options are available quickly. This is especially true within the main categories."

A role-based solution also limits the number of options users see upfront.

A responsive approach requires design team members to think differently about how they approach the design process. Fredriksson shares some of the things they found most helpful in their process:

- **Design for all screens at the same time:** "We worked in such a way that we designed for all screens, at the same time, as we had a clear objective of simplifying, highlighting what is important and culling content."
- **Work as a team:** "When we design for screens of different sizes, it is particularly important to work in close cooperation with the AD, ID, and front-end developer. Our basis is the content and what is most important when we design functions and templates. We focus more on designing the elements around which pages and functions are developed than designing a specific page for a specific screen size pixel perfectly. Much of the detail work is done together, in front of a screen, where we test sizes, animations, layout, and functionality so that they suit all screen sizes (and touch, of course)."
- **Include everything:** "We have worked according to the principle that nothing should be scaled down on smaller screens; any content that is sufficiently important to be included on a large screen is sufficiently important to be included on a small screen, too."

Design Considerations

Responsive design places new demands on several aspects of a website's design. Following are a few of the factors the Swedish Parliament team specifically considered in its responsive approach:

- **Navigation:** Downloading a new page on a telephone often takes a while. The team addressed that constraint in various ways, including:
    - Scaling down the volume of content considerably, with a focus on keeping what many people often need
    - Providing shorter text, with the answer to the most sought after information first and a call to action at the top of the page
    - Designing fewer pages, but with more content on each page (and the ability to add a table of contents, in the form of anchor links, to the page's subheadings to give users an overview)
    - Creating a shallow structure
- **Search:** Many users prefer to search rather than navigate on small screens. Faced with a menu, which is hidden behind a click, and the time it takes to download pages, users often feel that it is quicker and easier to search than to navigate. The search function is, in other words, an especially important support for the navigation when working with responsive design; this is particularly true on an intranet, where the information cannot be reached via internet search engines.
- **Layout and visual design:** Designing for different screen sizes also involves designing for touch. This means that clickable areas must be ample, with sufficient distance between different clickable areas. Both factors impact visual design.
- **Images:** To ensure that the user experience isn't choppy when images are slow to download, the designers chose to work with fixed image sizes so they could predict how much room each image required and place all elements on the page accurately.

  Also, working with text in images is never good — especially from an accessibility perspective — but it is extra troublesome when working with different screen sizes, as making text legible on small screens is difficult. Designers thus used various solutions to accommodate this constraint. For example, on larger screens, text is placed on the images, and on smaller screens, it is placed under the images. These choices improve readability.
- **Editorial challenges:** Responsive design involves many new challenges for editors, too. Following is a list of some of these challenges and how the designers addressed them:

- **Detailed graphics on small screens:** Detailed illustrations or graphics such as diagrams can be easy to see on a large screen, but difficult to decipher when the image shrinks on a small screen. One way the team addresses this is to make editors aware of the issue. Team members encourage editors to always think about how a page will be shown on smaller screens and to check the result when editing. Right now, this is an editorial task. However, the team is discussing the option of making it possible to enlarge images, so users on smaller screens can pinch/zoom to change image sizes.
- **Fewer, longer pages per subject:** This is a new way of thinking for the editors — that is, to make one long page for a single subject rather than many short pages found by navigating in a much deeper information structure. They also had to think more carefully about H2 headings, which automatically turn into a table of contents on a standard page.
- **Page layout changes depending on screen size:** For example, avoid referring to "the image on the right" or "the menu to the left" when writing text.

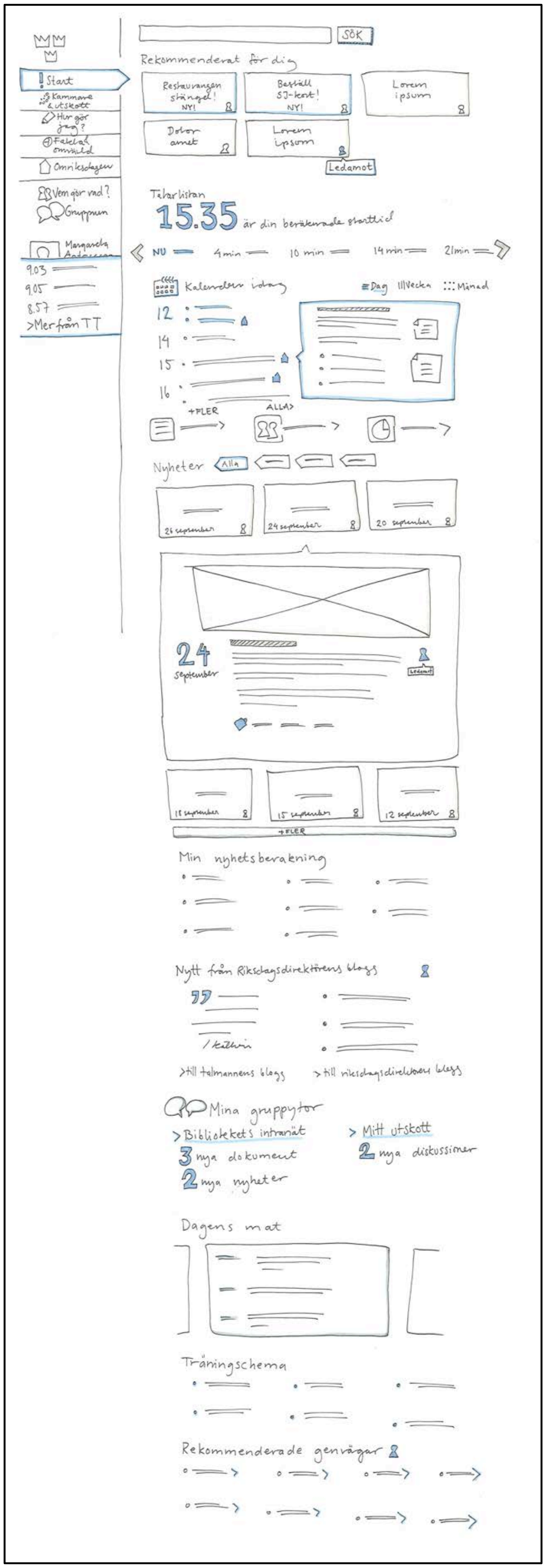


Image 161.
Swedish Parliament Intranet: Sketch of Responsive Design for New Homepage. This sketch shows an early draft of a possible homepage, created to help visualize the concept and overall navigation/interaction principles for a responsive intranet. An interaction designer created this sketch during the project's initial design phase. *161*_Swedish-parliament_16_early-draft-by-pencil.png

WORKING WITH OUTSIDE AGENCIES	
Agency	**Project Role**
Creuna A Nordic full-service digital agency	Creuna is the agency that the Swedish Parliament uses for intranet design and development. It is also responsible for ongoing intranet maintenance. During the project, the agency performed many tasks, including: • Prepared the needs analysis in the preliminary study • Created impact objectives, KPI framework, and zero benchmark evaluation • Provided strategy, planning, and project management for the intranet development project • Provided usability and accessibility expertise for intranet design • Designed the concept, IA, interaction design, and graphic design • Conducted user tests and card sorting • Developed the systems architecture • Managed front-end and back-end development • Integrated intranet with other systems • Managed tests and testing • Served as scrum master during implementation • Developed training, guidance, and guidelines for content and the CMS
Futurniture Communications agency	• **Reviewed and summarized the essence of the concept:** Creuna formulated the concept, but explaining it resulted in quite an extensive document. Futurniture helped formulate the concept on one page, which included: target groups, vision, mission, offer, position, tonality, words of value, and a summary of them all as a promise to the user. The concept summary is a key document in all activities when working with the intranet, as it helps the team stay on the right track.

GOVERNANCE

The intranet is owned by the Information Department, which is part of the Swedish Parliament Administration's Communications Division. The Head of the Information Department is the systems owner of the intranet. She is also the sponsor of intranet development projects and is head of the project steering groups. The Head of the Information Department's Internal Communication Section is responsible for systems maintenance.

This ownership arrangement makes it possible to focus on what is most important — the content and the needs of users. The web editors' contacts with operations and the organization are a precondition for maintaining a high level of quality, but also for capturing future needs and wishes.

The Information Department's competence regarding web and digital development, usability, accessibility, content, and design has been positive for the intranet's development and is one of the key success factors in developing the new intranet. All development occurs at the Information Department's request.

The Administration's IT Division is responsible for the intranet's technical environments and everyday operations.

INTRANET TEAM RESPONSIBILITIES	
Role	**Responsibilities**
Project Manager	• Strategy, planning, and concept • Intranet development projects • Usability and accessibility • KPI and impact objective follow-ups • Intranet web editors' coach/mentor
Web Editors	• Centralized publishing, updates, and content development (including news) • Quality assurance • Intranet network; contact with content owners and intranet contacts • Content owner training and support • Technical support and maintenance activities • Manuals and quick reference guides • Analysis of metrics and search maintenance • Responsible for pages and subjects
Content Owners	• Accuracy of their content
Intranet Contacts	• Appointed by the content owner to represent the owner in regular intranet work • Content development/improvement (with web editors)

URL AND ACCESS

ACCESS INFORMATION	
Item	**Status**
URL	• http://intranatet.riksdagen.se/
Default Status	• Users with older operating systems have the intranet as the homepage in their browsers, and the intranet automatically starts when the computer is switched on. The organization would prefer the intranet to be the default homepage for all users, but most people have Windows 8, in which the intranet is not the homepage and auto start is not possible. Windows 8 users have an intranet shortcut in the taskbar.
Remote Access	• Users can access the intranet remotely via VPN on all devices that Riksdag provides (but not BYOD). Most users' work equipment includes a laptop and an iPhone; some also have an iPad. Users that are often on the go (such as MPs) use the site remotely, as do officials working from home or in other places. **Note:** There has been a noticeable increase in traffic to the intranet from mobile devices since the redesign launched. In the first month, mobile traffic increased 4%; as of this writing, the increase is now almost 15%.

TIMELINE

PROJECT MILESTONES	
Milestone Date	**Milestone Description**
1998	• First intranet implementation in Lotus Notes
2000–2007	**Previous redesigns:** • **2000:** Lotus Notes update: New homepage • **2005:** Lotus Notes update: New homepage; users could choose between different presentation options • **2007 redesign:** First web-based intranet, with a greater user focus
2011–May 2012	• Preliminary study for new and redesigned intranet
November 2012	• Start of new intranet project
March 2014	• Launch of the new redesigned intranet
Post-Launch	Following its launch, the team continued its efforts to improve the new intranet. Some improvements had been given lower priority during the project, yet still needed to be addressed. Other parts were shown to need improvement during usability tests (conducted after the launch). Among the post-launch activities aimed at addressing these various needs included: • **May 2014:** Post-launch usability tests • **June 2014:** Homepage is redesigned with improved calendar and intro blocks at top of page • **November 2014:** "I want to..." feature redesigned
Overall redesign time frame: 17 months (not including preliminary study and post-launch work)	

CONTENT AND CONTENT CONTRIBUTORS

Contributors

Content can be generated from contributors across all parts of the Swedish Parliament. For example, the MPs are mainly users, but the party secretariats sometimes provide input to the calendar.

The intranet has two specific content contributor groups:

- **Content owners:** All managers at the Swedish Parliament Administration who have content on the intranet are responsible for its accuracy and are considered content owners.
- **Appointed contacts:** Contacts in the administration are appointed by content owners to manage content. The contacts can initialize changes, as they know what's going on in their field of expertise and can answer questions coming in from the organization. Approximately 35 appointed contacts exist in the organization and report to the content owners.

Contribution

Content ideas are generated through many channels across the organization:

- **Brainstorming:** The intranet team encourages the contacts in the intranet network to come up with ideas for improvements and news of interest to large user groups or a specific organizational group.
- **Intranet inbox:** Anyone with access to the intranet can also email the intranet inbox, which is monitored during office hours.
- **Calendar:** The calendar for internal groups and networks in the Swedish Parliament is widely used and has many contributors. Anyone can send in suggestions for new calendar items via an intranet form.
- **Feedback links:** Content ideas are also generated through the "Was this information of help to you?" function. This often includes content that users would like to see or suggestions for improvements to content.
- **Intranet network:** Seventeen of the appointed contacts and content owners are representatives in the intranet network group. This group was formed to help the team improve the intranet over time.

Training

Four web editors work on the intranet; one of them is responsible for training new contacts and content owners. A contact person and content owner should understand the intranet's purpose and goals, its overarching concept, and what is required.

The team provides a 1–2 hour training session for content owners and contacts. Very few content contacts are allowed to publish on the intranet; those who are get an additional 2–3 hours of CMS training as well. If there are new contacts that need to learn how to publish, the team provides one-to-one training and teaches them exactly what they have to learn to process their content. The number of appointed publishers is deliberately kept low to help maintain high-quality content, consistency, and usability.

The contacts contribute by emailing and talking to their web editor in the intranet editorial group. To maintain content quality, the editorial group publishes almost everything on the intranet. They have the knowledge about usability and accessibility, and also a much deeper understanding of the intranet's goals, concept, and structure.

Management & Quality Control

Quality and consistency is maintained through various means:

- **Web editors:** The web editors have total control of every page on the intranet. Each page has one web editor in the intranet editorial group who is responsible for its content. The web editors have at least one contact in the organization for each page or subject. The contact and web editor work together on changes and improvements.
- **Regular content reviews:** To keep content up-to-date, the editorial team reviews all pages once or twice a year. Some pages and content are updated continually, and the responsible (or on duty) web editor is in charge of keeping that content up-to-date. One web editor is always on duty to take calls, answer emails, and distribute questions to the responsible web editor.
- **Regular planning sessions:** The team uses the scrum methodology to develop/adjust content and plan all of its work — including news items — in the content backlog and sprint planning. Because the team has a backlog for content development and news, the editorial team works in four-week sprints. Each sprint includes a planning session in which the team goes through the backlog and decides what to work on in terms of content development. Because the news flow is a bit faster, team members adapted scrum to handle the news flow alongside content development.
- **Annual planning process.** The team conducts an annual planning process in which it develops various content areas according to clearly defined objectives. The objectives are broken down to provide a preliminary sprint planning for the entire year.
- **Informal brainstorming:** The four web editors have plenty of discussions and give each other feedback on each other's work continuously. Because each web editor has different strengths, they get better results by regularly bouncing ideas off each other.
- **Maintaining close ties with content contributors:** The editors meet regularly with the contacts and owners, and sometimes intensively when they're working on a new page or improvements to a specific area's content. The contacts are considered the organization's ears; they help the editors listen in on what's going on and identify any problems on the intranet. Working close with the content contacts and owners has been a big success factor, as they are often good at giving feedback.

The team holds regular joint meetings with the press and news functions to discuss the state of play. It also meets regularly with communications strategists to compare notes and obtain an overview, which helps team members set the right priorities for content.

Content Guidelines

The team monitors developments related to usability and accessibility on an ongoing basis, and follows the findings of the NN/g surveys, as well as those of GDS in England.

Sweden has a Swedish version of WCAG 2.0 called *Guidelines for Web Development* (www.webbriktlinjer.se) for public sector websites. The team followed these official guidelines in designing its new intranet. The first of 111 guidelines states that websites should conform to WCAG 2.0 level AA. According to the guidelines' principles, public sector websites should be accessible, usable, confidence-inspiring, efficient, technically independent, and accessible over time. "We have followed the guidelines as far as possible, and our intranet conforms with level AA in the points relevant to the developed solution," says Stringer Bodin.

The Swedish Parliament team has also developed several quick guides of content guidelines, including the *Quick Guide for Editors*, which provides tips on how to write for the intranet. It also offers a corresponding manual for images, *Images on the Intranet*.

Excerpts from the *Quick Guide for Editors:*

Headings

Headings should be short and pithy; use introductions/extracts to clarify or go into greater depth.

Guideline no. 105, Priority 1: Create headings with heading elements

- **Headings should be real headings, not just captions.** For example, it doesn't work to write "Seminar in the Riksdag" as a heading. Instead try to write what the seminar is about: "Seminar on men's violence against women."
- **A heading should be active.** This means that there should be a subject that is doing/thinking/planning something. Write "The Riksdag debates the budget bill," rather than "The budget bill is debated in the Riksdag." Think about writing headings in the present tense as a rule.
- **Aim to write headings that are as short as possible when you write for the intranet.** The goal should be to write headings of no more than one line, even on the latest news page.
- **Think about the message** in the heading, so that the heading and extract text don't have two different messages.
- **Try, if possible, to highlight something interesting.** Think about how to get the user to want to read more. Include interesting details.

Alt text

Guideline no. 11 Priority 1: Writing alternative alt text

Images with significant content must have an alt-text. The editor must assess whether the content of the image is significant or not. On the intranet, we should primarily have images with significant content.

- The alt text should be no longer than 90 characters or 12 words.
- The alt text should describe the image.
- The alt text should never include the name of the photographer.
- When an image contains text, the text in the image should be written in the form of an alt text.

Examples of alt texts:

- Woman hoisting the Swedish flag outside the East Wing of the Swedish Parliament building.
- Member of the Swedish Parliament, Name Nameson, welcomes the delegation from XYZ in the Bank Hall.
- Full Chamber at the opening of the 2014 Riksdag session.
- Portrait of Secretary-General of the Riksdag Kathrin Flossing on Riksgatan.

Culling Content

From the very start of the project, the new site's content and content quality was a priority. The team had to decide what to keep, what to leave behind, and how to handle content they decided was important enough to include on the new site. "We worked on the basis of the concept and list of priorities that we drew up at an early stage of the project," says Web Editor Birgitta Elgemyr. This laser focus on content planning paid off: the new site provides users with a better, more cohesive experience.

"We went from having a disjointed intranet to a coherent one," she says. "Earlier it was important to have shorter pages, but with the redesign we wanted to keep the content within each subject together in a completely new way."

Making quality content a focus of the new site design meant the team had to find effective ways to uncover gems in the rough.

"When we met the content owners during the project, many of them hadn't looked at the content on the old intranet for a long time," says Web Editor Katarina Willstedt. "When we worked together on the content, we discovered that many things were no longer relevant and didn't fit the new concept or objectives for the new intranet.

"We also didn't want it [the new site] to be a storage space for old material 'that may be useful some time' or offer the same services as other channels," she says.

So, if content didn't really have a target group, the team simply got rid of it. There was no longer room for text that merely filled empty space.

“We were forced to rethink and remove material that was no longer used,” says Willstedt.

Not everything was published before launch, as the team decided to port the low-priority content later. That content proved to be that last box you find in the basement six months after you move: no one missed it. Ultimately, the team decided not to publish it at all. The shallow information structure also made it easier to highlight what was important.

The old content was not deleted, but it’s been kept only as a sort of archive. This turned out to be an important decision. A couple of times since the new site launched, team members had to publish older content that was not deemed relevant to migrate, but that was requested by users.

One of the critical content challenges the team encountered regarded the CMS templates. “It would have been easier to work with and revise the contents if the templates in CMS had been ready earlier,” says Elgemyr. “It felt as though we were groping in the dark for a while when the team didn’t know what it was going to look like, and we weren’t able to show anything to the content owners either. It would have been good if we’d had a bit more time to work with the contents properly in the templates during the project.”

TECHNOLOGY

TECHNOLOGY	
Category	**Technology Used**
Web Server Hardware and Operating System	• Windows servers
Bug Tracking / Quality Assurance	• Redmine • nUnit för automatiserade tester
Design Tools	• Adobe Photoshop • Axure • Paper, Post-Its, white boards
Site Building Tools	• Visual Studio • ReSharper • Grunt
Content Management Tools	• EPiServer CMS 7 • SharePoint 2013 (calendar and user profiles)
Search	• Apache Solr
Version Control	• Subversion
Build Server	• TeamCity
Front-End Framework	• Twitter bootstrap

At the beginning of the project, the team evaluated three different platforms: EPiServer CMS, SharePoint 2013, and WordPress. During the evaluation, team members examined each product’s strengths and weaknesses and reviewed the products based on several criteria:

- How well does the product fulfill the functions identified as important for the intranet during the preliminary study and project-planning phase?
- How easy is it to adapt and further develop the solution?
- Does the product have intranet-specific functionality out-of-the-box?
- How well suited is the product to the Swedish Parliament’s infrastructure and competence?
- How well does the product fulfill the intranet’s security requirements?

The team also reviewed specific functions that it had identified as important — such as text and image management — and evaluated operational and licensing costs. Ultimately, the team chose EPiServer CMS for content management and SharePoint for specific functions, such as handling editorial calendars.

RESULTS AND ROI

Defining Success

The Swedish Parliament had many goals for the new intranet, but above all, the intranet had to be effective in helping users carry out common tasks. Specifically, the new site had to make it easy for users to:

- Find people
- Find the information they need
- Understand all information on the intranet
- Follow what's happening at their workplace

With these goals in mind, the team conducted user tests before and after the launch and also asked users about their overall experience with the intranet to gauge its success.

In the test conducted before the launch, the team uncovered a list of things to improve on the intranet, including changes to the UI and editorial content (especially micro content). The results for these items in the post-launch test were much better. It was easy for users to find people by the work they performed, and all test participants successfully finished the test tasks. The team also tested the information structure with satisfying results. For example, the name of the "I want to…" (*Jag vill…*) section was perceived as an odd choice at first, but users also liked that it was different from other section names and easily remembered.

The tests also showed that mobile use of the intranet is rising steadily. "We can also see which functions are used the most, and that what we need to work further with and refine," says Stringer Bodin. Another interesting finding was that the top tasks on the new intranet do not differ significantly from those on the old one. The big difference, of course, is that these top tasks have been simplified so that they are easier for users to perform.

The team defined the KPI framework during the project and included two impact objectives:

- To be an effective tool for both users and content contributors
- To promote cooperation and a sense of belonging

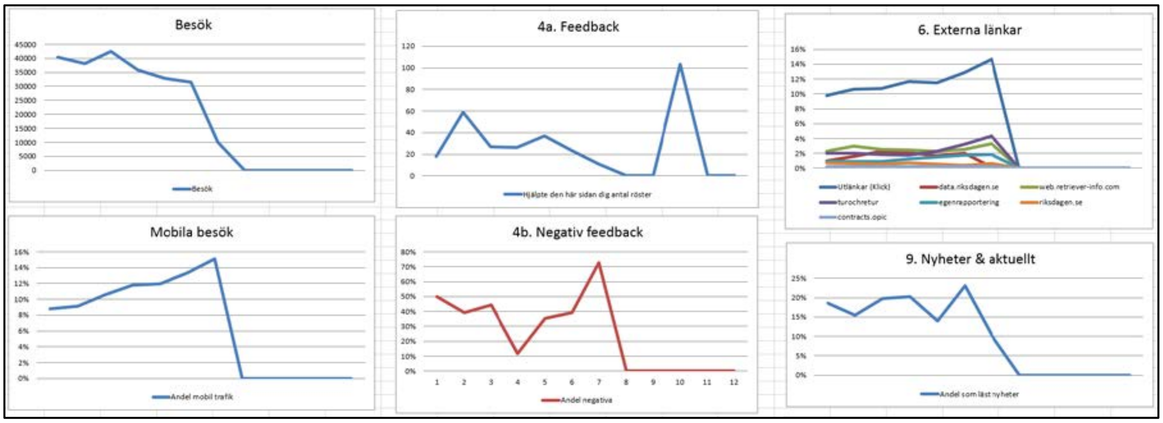
KPI	INDIKATION	METOD
1) Effektivt verktyg för användarna - ett arbetsverktyg		
1. Fråga: "Det är lätt att hitta personer"	Svar på en skala 1-5	Enkätundersökning
2. Fråga: "Det är lätt att hitta den information jag behöver"	Svar på en skala 1-5	Enkätundersökning
3. Fråga: "Det är lätt att förstå informationen på intranätet"	Svar på en skala 1-5	Enkätundersökning
4. Hjälpte informationen dig	Svarar på hur relevant informationen var för användaren	Piwik
5. Relevanta webbplatsök	Andel sökningar som genererar ett sökresultat	Piwik
6. Andel klick på externa länkar till andra system	Identifiera länkar!	Piwik
2) Effektivt verktyg för avsändarna - för att kunna nå ut till organisationen		
8. Prenumerationer	Visar vilka kategorier som är populära att prenumerera på	Piwik
9. Lästa nyheter	Andel användare som läser nyheter över tid	Piwik
3) Främja samhörighet & bidra till att hålla samman organisationen		
10. Fråga: "Det är lätt att följa med i vad som händer på min arbetsplats"	Svar på en skala 1-5	Enkätundersökning
12. Aktivitet	Söker, delar, favoriserar, externa länkar, laddat ned dokument	Piwik
13. Aktiva användare	Andel användare som går vidare från startsidan	Piwik
14. Byta roll	Andel användare som byter roll på intranätet	Piwik

This shows the KPI framework used by the organization. KPIs are described on the left; indicators that can be measured are in the middle; and the right column shows the measurement method. Everything that is measured relates to the impact objectives. *Swedish-parliament_36_KPI.png*

Tracking Use and Usage

Metrics help the team identify trends over time, which in turn helps them prioritize ongoing changes and development activities. Examples of metrics tracked monthly:

- **Visits**
- **Mobile visits** (including tablets)
- **Number of active users:** users who go on from the intranet's homepage
- **Feedback:** number of feedback cases logged via the "Was this information of help to you?" function
- **Negative feedback:** number of negative feedback cases via the "Was this information of help to you?" function
- **Searches:** number of searches (the team follows up on the most common search terms and phrases)
- **External links:** which websites or systems do users go to when they leave the intranet?
- **News:** how many users read the news on the homepage
- **User activity:** how many people use various intranet functions, such as search, sharing a page internally, downloading documents, and changing roles.
- **Page views** for the top key functions and pages.



A few key metrics and their visualizations on an Excel sheet. Note: It appears that everything is going sharply downward, but most people are on holiday in July, which accounts for a natural dip in intranet usage and feedback.

LESSONS LEARNED

Members of the Swedish Parliament team and its design partners share lessons learned from the project:

Process

- **Educate external partners as thoroughly as possible.** "We decided to concentrate on carrying out an extensive pre-study in several steps and consisting of several components, and to teach our partners about the organization and the internal processes. We benefited greatly from having done this during the rest of the project." (Karin Hedman, Head of Information Department/Intranet System Owner)
- **If you hire consultants, keep them close to the process.** "The Swedish Parliament is an organization with complex operations, and participating in the survey of needs would have helped me to gain a deeper understanding of work procedures, conditions, etc. I was lucky enough to work with one of the long-time web editors and that was critical for my understanding the operations of the organization and the intranet. It is important to have someone who knows how the organization works and can explain things when you're a consultant. It's been positive that we have worked in such close cooperation with the clients; we became a project team consisting of us from Creuna, the core team from the Swedish Parliament Administration, and other consultants." (Fredriksson)
- **Show work in progress.** "The public sprint demos worked surprisingly well! The main purpose was to be transparent and invite those who showed interest — besides those who were a part of the project organization. We thought openness would make the buy-in easier, but we also wanted the organizations expertise, and this was one way to invite them and listen to feedback." (Stringer Bodin)

"If anyone had told me before the project started that we were going to talk about what we were doing during each sprint to 25–30 interested parties at the Swedish Parliament, I wouldn't have believed it would work, but it did! We had to think things through properly before each sprint demo, and I think all the interested parties benefited from them. However, we had pre-demos for the core team before showing everyone what we'd done, as the closest team needed a greater insight into developments." (Engelhart)

- **Err on the side of over-communicating.** "Don't underestimate the team's need for information about the work of other members of the team. Sometimes it's easy to believe that you can save time by not calling everyone to certain meetings or activities, but this can instead lead to things having to be corrected later as the right person wasn't there when they should have been." (Stringer Bodin)
- **Take a pulse check halfway through:** "When half the project period had passed, we carried out a halftime evaluation to see where we stood and what we could improve in our work procedures. What we did was to sketch out the backlog in order to be able to focus on the right things during the second half of the project. It was very valuable for the team to see where we stood — a common picture for the whole team!" (Palmgren)
- **Aim for continuous user involvement:** "Our continuous user involvement through interviews, tests, and reference groups was a success factor." (Engelhart)
- **Communicate.** "The project has been carried out in the form of a communication project with one of the main project managers employed at the Swedish Parliament. This has been very important, both during the project and after the launch. It has given us the opportunity to reinforce our skills at the Information Department, while retaining experience and competence in the organization. This explains why the work of our web editors has developed so well, and the continued development of the Intranet has run so smoothly." (Hedman)

Content

- **Cull content; it is a critical task.** "It was good that the in-house team had such a clear focus on culling the content and focusing on what was important. This made the task easier for us as consultants." (Fredriksson)

- **Give the web editors a lot of support.** “Editors found it difficult to start working according to a new intranet concept. We needed to give them more support. If we’d known that it would take such a long time to get them up to speed, we would have planned our work with the content differently. Now, the gap between the old intranet’s content and the new one is too great to grasp and understand. I think we should have prepared much more sample text, with descriptions of how to work with the content and visualize it in the new design at the same time.” (Stringer Bodin)
- **Test designs rather than ask opinions.** “The reference groups (collecting requirements at group meetings) didn’t work. We tested this but didn’t receive any detailed wishes that could help us before we started our development work. Testing proposals or elements that we’d already developed worked a lot better, and we received more valuable feedback this way.” (Fredriksson)
- **Visualize and prioritize development of the most common templates.** “My advice to others is to get started with the content as early as possible and to prioritize the development of templates that the editors use a lot. Try to visualize what it’s going to look like, especially for the editors!” (Elgemyr)
- **Consider the editors.** “Think about how the editors’ interface and the editor in CMS are to function. Help the editors to create a good structure in CMS for the content. Help the editors to do things right. Think about the editors’ perspective from an early stage when developing the solutions.” (Fredriksson)

Teams

- **Whenever possible, locate team members in one location.** “If possible, make sure that the team can work from a common location. Through most of the project, we sat in two different locations in Stockholm. If we’d been sitting together, it would have been easier and quicker for us to bounce questions off each other.” (Lernmark)
- **Don’t underestimate the power of a supportive team environment.** “The ability to create commitment and loyalty in the team is critical. We succeeded with this! This meant that certain shortcomings could be overcome as we worked as a team, and we wanted to make things work! We really managed to create a high level of team spirit: ‘We’re going to bring this off!’ We made time for coffee breaks together, to talk and do things together, to discuss. Our team had a linear organization, where everyone was included, which is typically Swedish. We worked without prestige, with our objectives in focus.” (Stringer Bodin and Palmgren)

- **Do the design work before the developers start coding.** "There wasn't enough design ready (wireframes, design sketches, and prototypes) when the developers were due to start developing. It got very stressful when the developers wanted more to do, and we didn't have enough to give them. It's a balancing act between detailing and designing enough for the developers without doing too much. This balance wasn't really achieved during the initial sprints. We (the interaction designer and art director) would have needed a head start of a few weeks, and in some areas, you need clear objectives before you can start developing. The graphic expression also needs to be agreed [on] before the front-end developers start developing. It gets difficult when this has to be done in parallel." (Fredriksson)
- **Keep trying to make search better.** "It's always possible to do more work with the search function! Numerous revisions and sprints are needed to create a good search function. The users' expectations are that search should be as good as Google, so you can always do more when it comes to the search function. But of course, it's a question of priorities between everything that needs to be done." (Fredriksson and Palmgren)

An Iterative Approach

- **Keep reassessing.** "We tried to improve our work methods all the time. We changed things on the basis of our experiences; some improvements emerged during the retrospectives, but also in other ways. We worked according to scrum and this was a success factor for the project. With scrum, we were able to prioritize and reprioritize throughout the project. The more we learned and developed, the easier it was for us to see what needed to be done and developed. Some things that we thought were important during the planning stage turned out not to be so important when we started to see and test the whole concept. This gave us a flexibility throughout the project, and some user stories remained in the backlog and were later rejected." (Stringer Bodin)
- **Work as efficiently as possible.** "Once the design concept was agreed upon, we tried to work as efficient as possible in the design process. No unnecessary time was spent on sketches and prototypes. We drew things on a whiteboard and took photos of what we'd drawn. We rarely had formal design or prototype deliveries, as is customary. Sometimes it was enough with a specification of what needed to be developed in the user story, and then for the art director and interaction designer to work closely with the developers during the implementation instead. When we needed to test different alternatives or to seek buy-in in the organization, we still made prototypes and design sketches though." (Engelhart)

- **Practice nimble design/small iterations, which are more effective than big design sweeps.** "Start by developing a scaled-down version of a new function. Test it on users, analyze data from statistics tools, and then decide what the next step should be. This way, you avoid going too far and devoting time to functions that aren't used or don't support the users." (Fröberg)

Technology

- **Leverage existing technology.** "In most cases, you probably don't want to create an intranet from scratch. Some sort of content platform is a good idea to start with. Modifying a content system extensively is often possible and might even be easy to do, but make sure to consider the long-term costs of ownership and maintenance of a standard platform that has been heavily modified. My advice would be: select a platform that fulfills most of your requirements and then find a supplier/team that is really comfortable with this platform or find a great supplier/team and let them choose the platform. This might mean that you have to adjust your requirements, or at least postpone some of them." (Lernmark)
- **Don't expect the intranet to solve everything.** "It's important to think about the ecosystem of services that the users will be working in, and what role the intranet plays in this ecosystem. The intranet can't solve everything; it's important to be clear about what you want the intranet to do." (Fredriksson)

List of Images

The following images appear within the pages of this document and are also provided as standalone image files in the ZIP folder included with the purchase of this report. The file name listed after each image caption corresponds to its accompanying image file, contained in the ZIP folder.

Intranet Design Annual Winners Through the Years

2016: SIX COUNTRIES AND EIGHT INDUSTRIES

North America has a strong showing in this year's annual, with three winning organizations from Canada and three from the US. Four European organizations round out the top 10, with one organization each from Germany, Italy, Spain, and Sweden. This is only the second time an organization from Italy (Salini Impregilo) has been featured, with last year's UniCredit being the first.

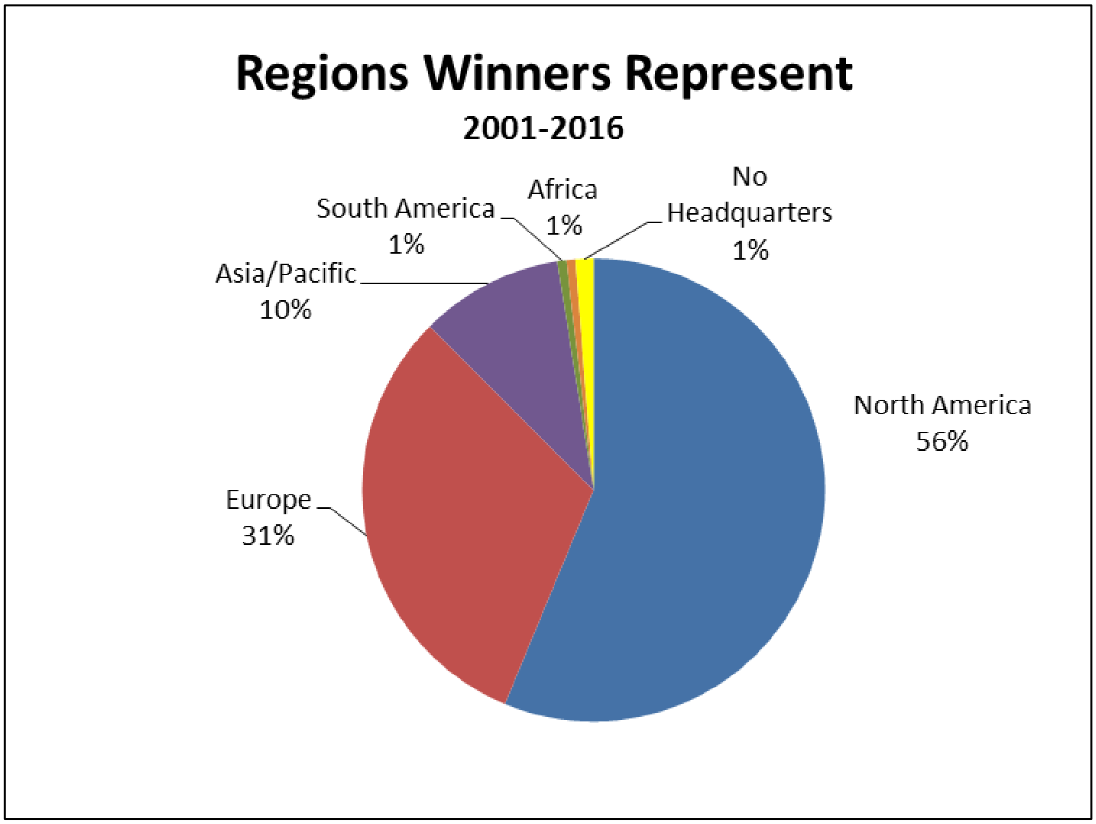
DESIGN ANNUAL 2015 WINNERS BY COUNTRY	
Country	**Number of Winners**
United States	3
Canada	3
Germany	1
Italy	1
Spain	1
Sweden	1

Design Annual 2016 Winners by Country

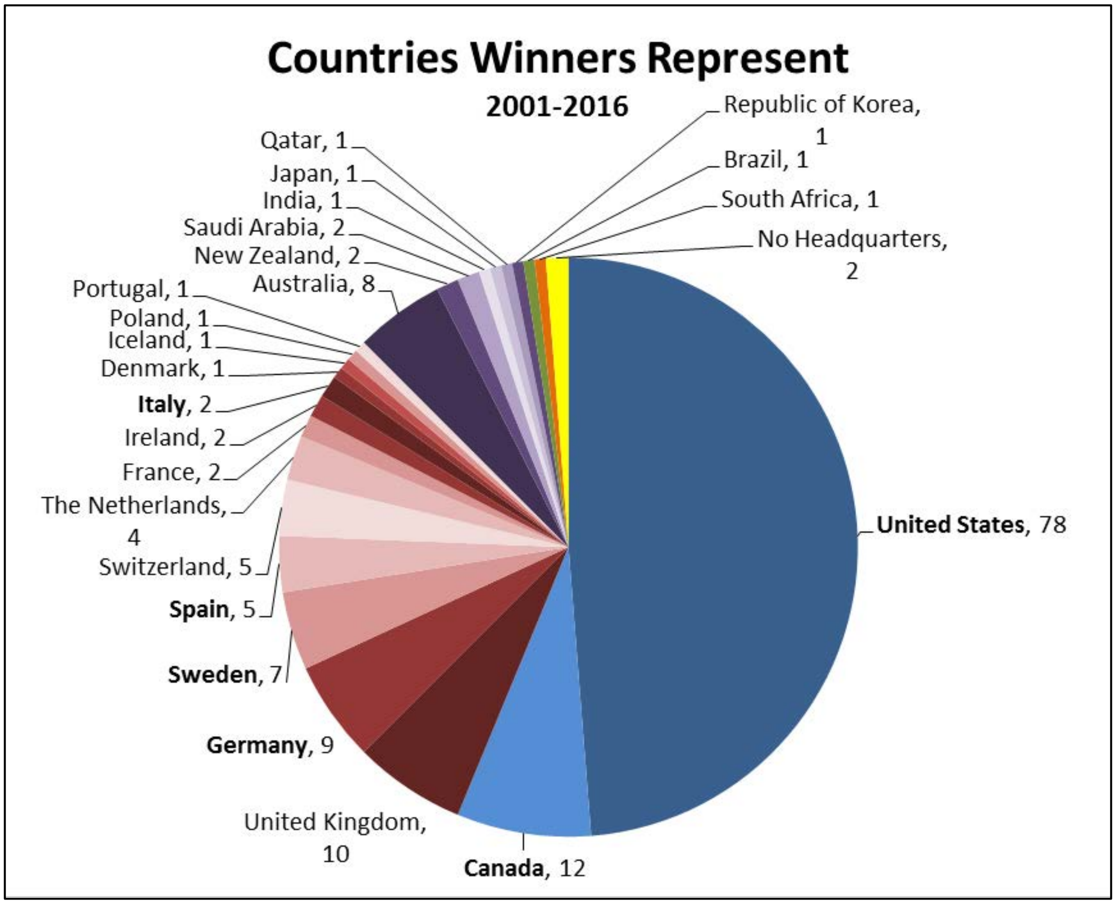
The world regions and respective percentages of winning organizations over the history of the Intranet Design Annual are:

- North America (56%)
- Europe (31%)
- Asia/Pacific, including the Middle East (10%)
- South America (1%)
- Africa (1%)

Two organizations, representing 1% of all winners through history, claim to have no headquarters. One was a global network of organizations, and the other considered itself global but not headquartered in any specific country.



Regions Winners Represent: 2001–2016. The world regions and respective percentages of winners over the history of the Design Annual are: North America at 56% (90 winners), Europe at 31% (50 winners), Asia/Pacific, including the Middle East, at 11% (16 winners), South America at 1% (1 winner), and Africa at 1% (1 winner), with an additional 1% (2 winners) claiming no official regional headquarters.

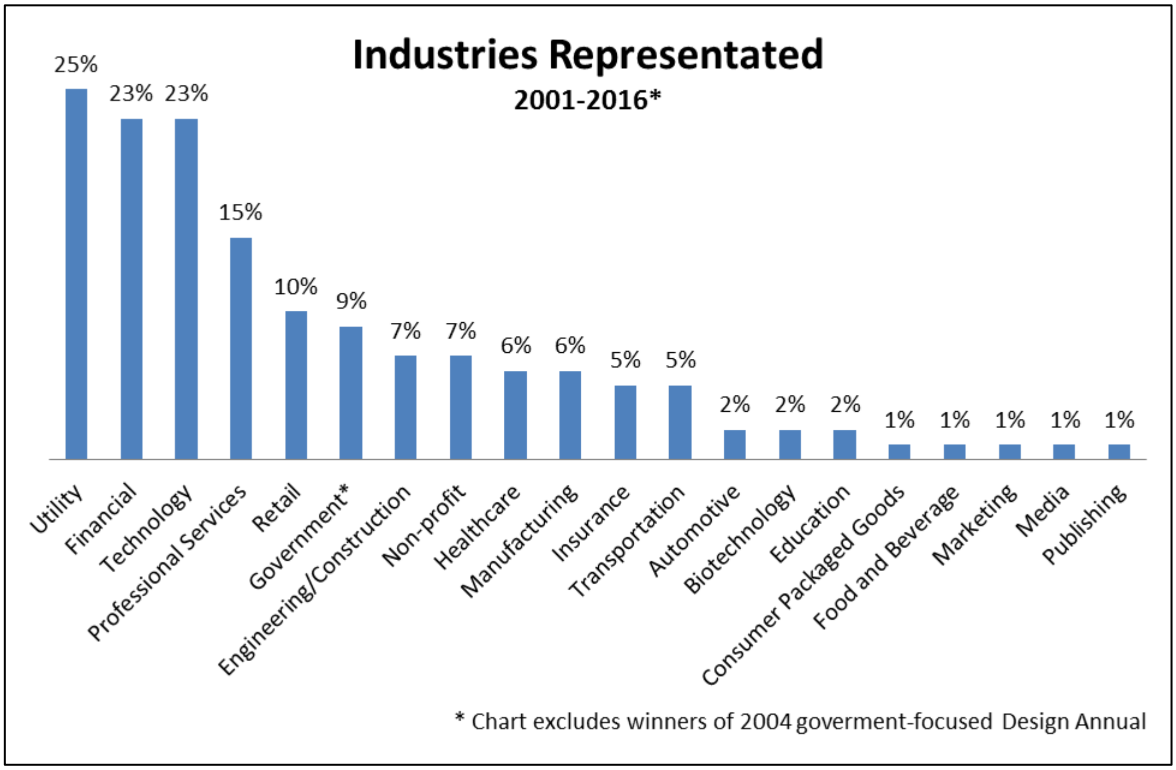


Countries Winners Represent: 2001–2016. Winning organizations have come from 24 different countries. The countries are grouped here by region (moving clockwise from top): North America, Europe, Asia/Pacific (including the Middle East), and South America. The countries represented by our 2016 winners are shown in bold.

The 2016 winners represent eight different industries. Wins from two energy companies — Repsol and Enbridge — this year push utilities to the top of the list for the first time, surpassing financial and technology as the most represented industries among our collective Design Annual winners.

The industries and their respective winner counts for 2016 are:

- Utilities (2)
- Construction (2)
- Financial (1)
- Government (1)
- Healthcare (1)
- Nonprofit (1)
- Professional Services (1)
- Transportation (1)



Industries Represented: 2001–2016. This year's winners represent eight different industries among the 20 total industries recognized over the history of our Design Annual. This year's winners represent the following industries: utilities (2), construction (2), financial (1), government (1), healthcare (1), nonprofit (1), professional services (1), and transportation (1). This year's wins from two utility companies make that industry the top performer overall, surpassing the previously dominant financial and technology sectors.

Intranets Not Selected: Common Issues

The winning designers make it look easy. But unifying an organization, large or small, in a single enterprise application is challenging. Several of the designs that were entered but didn't quite make the cut suffered similar issues, as we now describe.

COLLABORATION SITES APLENTY

Back in the year 2000 when we first started the Design Annual, content was not easy to find on intranets for two main reasons: 1) many companies had multiple intranets, and people either didn't know about them or didn't have access; and/or 2) search was bad or nonexistent. Designers have spent 15 years trying to resolve these issues, and are making great strides in both consolidating and managing content and improving search. But: we have taken one really giant step backward. The culprit? The way me manage collaboration sites.

It's simply too easy for people to make collaboration sites on most intranets. Couple this with the fact that little or no control exists over these sites, and they become unwieldy. The results?

- They are not part of search.
- They never find a smart position in the IA or menus.
- Collaboration sites and the content within them are often duplicated, unmaintained, hidden from people who need them, and/or stale but unarchived.

In short, collaboration sites often give rise to serious content and findability issues.

To repair or prevent these problems, organizations can attempt to better control collaboration spaces. As the following examples show, this control begins before creation and continues after the space has been deemed obsolete:

Before Creation

- Make collaboration spaces easy to find. If people are already part of helpful spaces, they will be less likely to create new ones.

At Creation

- In your processes and in the UI, suggest that people look for related collaboration spaces before they create new ones.
- Encourage collaboration space mangers to invite more people when possible. People seem to think that every single task force and project needs its own space. If the information is proprietary and requires a special space, by all means create it. But if work can be done well as part of another space, try that instead.
- Force the creators of spaces and the content within them to write a thorough description of the space, and religiously tag and categorize all content.

Retiring

- Have rules for how and when to retire a collaboration space based on events and usage.
- Suggest ways to integrate evergreen content on the intranet, in the menus and sites search, instead of siloed in an archived collaboration space.

RESPONSIVE RECTANGULAR MODULES IN A GRID WITHOUT A HIERARCHY

Grids can help introduce balance and rhythm to a page, but one with too many small squares often lacks any hierarchy. The trend to design in modular sections that can easily move and flow well on any device is popular and often positive. But many designs are going for these small-box sections that are designed independently, with no plan for how all of these modules will look and feel when presented together. People using the intranet don't stand a chance of scanning for and picking out more or less important items on pages like this.

PORTALS THAT ONLY PROMISE CONTENT

Portals aggregate links in too many places, and too often show only the links. Portal-like homepages sometimes present generic links to sections rather than presenting brief information about the content those sections contain. Instead of *CEO Blog*, for example, show the blog's title and a short description of the most recent entry.

BRANDING GALORE

It's not clear why so many promotions and intranet tasks are so heavily branded. Does a new benefits sign-up period really require heavy branding? Someone thinks it will make it much more attractive. Trust us: it doesn't.

Cut names and flamboyant graphics, which typically make items less attractive and understandable. It's better to present promotional items in the navigation, or in text or graphics that match the intranet's style. And use clear terms that specifically name the task (such as *enroll in new benefits*) or the intranet section, instead of using branded, marketing-like terms.

ILLEGIBLE TEXT

It's unfortunate that small, grey text is actually attractive — because it is nearly illegible. Too many designs still offer very small text or very little contrast between text and background. Some designs suffer from both problems. Employees must be able to scan and read text without squinting or using a magnifying glass.

ICONS AND GRAPHICS EVERYWHERE

When a page includes a lot of text or links, it can be tempting to highlight these items with icons or superfluous graphics. Even menu links sometimes seem too plain to some people, and adding icons seems to be the answer. Although it's true that an icon might aid people in recognizing or recalling particular commands (think scissors for “cut”), it is unlikely that a good icon exists for a set 10, 20, or 30 links. Adding icons for each link doesn’t make your page more fun, nor does it make your links more recognizable. It usually just adds clutter. Better to use white, clear link names, white space, and other visual treatments to liven up the page and make links scannable. Similarly, a related image might make a news item more engaging, but adding stock art as an afterthought helps nobody.

Selection Criteria and Process

Nielsen Norman Group's Intranet Design Annual rewards great examples of useful, usable intranets that meet the needs of people using them. To find these intranets and their teams, we post a call for entries each year in May on our corporate website, www.nngroup.com.

To enter, organizations — either design firms responsible for the intranet or the organization's intranet team — submit background information about the organization and a brief description of the intranet, including its features, functions, and users, and what makes it unique.

We review each entry, then judge and select the winners based on a four-step process:

1. Initial design reviews and numeric rankings
2. Follow-up questions with the top submissions (as necessary)
3. In-depth design reviews on the top entries to choose the top 10
4. Follow-up interviews with the top 10

Each step is detailed below.

INITIAL DESIGN REVIEWS AND NUMERIC RANKINGS

The judges (see the next section, *About the Authors*) conduct baseline design reviews and narrow the field down to tier-one submissions. We rate each site numerically and note any great or missing features and qualities. We base the numeric rankings on criteria typically viewed as key to intranet usability, including criteria that emerge from submissions or trends in previous years. We rate each submission on a scale of 0 to 3, with 3 being the best rating. Criteria include:

Navigation:

- Main navigation on every page
- Consistent, easy navigation
- Clear hierarchy
- Consistent style across the intranet
- Horizontal scrolling only where appropriate
- Expected page layout and appropriate vertical scrolling

Design:

- Pleasing aesthetics, clean design
- Page hierarchy and priority
- Brand support
- Engaging and helpful homepage design
- Good contrast between text and background
- Good use of graphics

- Legible text
- Distinguishable headings and links
- The right amount of text and links

Search:

- Consistently available search
- Relationship to employee search
- Good search design (ideally, a simple open field at the top of pages)

Personalization and News Delivery:

- Personalization and roles, catering to different offices or cultures
- Organization-related news
- Information about internal groups

Content:

- Well-written text
- Employee directory or directory search
- Content management, content curation, editorial team management
- Business needs met

Collaboration and Social:

- Content posting and editing capabilities for all employees
- Rating, commenting on, and sharing content

Overall:

- Simple forms
- Support for the main corporate functions
- Encapsulation of the organization's spirit
- Use of innovative, fun, or original features
- Accessibility
- Useful mobile offerings
- Originality or "something special"

About the Authors

Kara Pernice is Senior Vice President at Nielsen Norman Group and works with clients to derive UX strategy and designs that meet business goals. With more than 20 years of experience in management and user experience (UX) research and design, she has led many major intercontinental research studies, authored a variety of research reports and hundreds of guidelines, and coauthored the book *Eyetracking Web Usability*. *The Wall Street Journal* called Pernice an "intranet guru." She has lectured around the world on a wide range of topics, and her client work spans many businesses and industries. Before joining NN/g, Pernice gained invaluable experience pioneering UX and building and managing UX teams in an assortment of development environments and established several successful user experience programs. A champion for usability, Pernice chaired the Usability Professionals' Association 2000 and 2001 conferences, and served as 2002 conference advisor. She holds an MBA from Northeastern University and a BA from Simmons College.

Amy Schade is a Director at Nielsen Norman Group with more than 20 years of experience in usability, user research, and website design and development. She has led research, authored reports, and taught courses on the usability of intranets, mobile websites and applications, responsive design, emerging design patterns, email newsletters, and ecommerce. She co-authored the Intranet Information Architecture report and has co-authored the Intranet Design Annual since 2010.

Schade works with clients large and small in industries including telecommunications, ecommerce, nonprofits, government, education, and publishing, including extensive work on corporate intranets. She has conducted worldwide user research, including longitudinal studies, remote studies, accessibility studies, and eyetracking research, running studies in the US, Canada, Europe, Asia, and Australia.

Before joining NN/g, Schade worked as an information architect. She previously held a variety of positions in advertising and web production. She holds a master's degree from the Interactive Telecommunications Program at New York University and a BA in communications from the University of Pennsylvania.

Patty Caya (www.pattycaya.com) is a freelance journalist (writer and editor) and an award-winning digital media producer. In her business writing, she specializes in topics relating to usability (including social media and mobile design) and the business and technology of the web. She has co-authored the Intranet Design Annuals for NN/g since 2008. She wrote and edited the report, *Mobile Intranets and Enterprise Apps*, and the 1st and 2nd editions of *Social Features on Intranets: Case Studies of Enterprise 2.0.* She authored the 3rd, 4th, and 5th editions of the report on intranet portals and contributed to the *Application Design Showcase (2^{nd} Edition)*.

For more than a decade, Caya has split her time between journalism projects and web consulting. She is an experienced content strategist and interaction designer. She has consulted for many of Boston's top interactive agencies, leading web and intranet development projects as well as usability testing, research, and design initiatives. Her client roster spans a wide range of industries and includes leading national brands alongside mission-driven nonprofits. She has a BFA from New York University's Tisch School of the Arts and has completed coursework in the User Experience Program at Bentley University.

Acknowledgements

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