

UNION MODERNISATION FUND

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**PROSPECT'S ELECTRONIC
INFORMATION SYSTEMS PROJECT –
STREAMLINING SYSTEMS FOR A
SMARTER UNION**

Prospect's electronic information systems project – streamlining systems for a smarter union

Introduction

Prospect is an independent, thriving and forward-looking trade union, which had embarked on a modernisation programme under the theme 'Taking Prospect Forward'. This ambitious project involved changes to its organisation, objectives and processes, with the aim of delivering a qualitative improvement in the way it works with its members and other stakeholders, including employers, professional bodies and others.

Backed by the Union Modernisation Fund (UMF), the electronic information systems (EIS) project was designed to play a critical role in delivering this modernisation programme.

Why this project?

The aim of the EIS project was to change the way that Prospect collates, analyses, stores and distributes information across the organisation and with outside bodies, and to change related work processes, to help transform Prospect as an organisation. The EIS project was therefore intended to be a vehicle for wider changes.

Background

- Prospect has more than 102,000 members.
- Prospect members are engineers, scientists, managers and specialists in areas as diverse as agriculture, defence, energy, environment, heritage, shipbuilding and transport.
- Prospect is the largest union in the UK representing professional engineers.

Project aims

The union identified five main aims:

- 1. Establish electronic distribution systems:** Electronic distribution systems will allow information in publications, newsletters, circulars, briefings and other documents to be circulated electronically to members, committees and branches. The main aim was to make a significant reduction in hard copy mailings and improve the speed and 'reach' of communication with members.
- 2. Set up effective electronic document management systems:** A unified document management and indexing system would allow documents to be stored, searched and retrieved

electronically. This would significantly reduce the amount of physical storage space required and enable quick search and retrieval of documents – both those generated internally and those received from other organisations, such as employers, who increasingly send documents in electronic format. The aim was to halve the amount of space taken up by document storage and significantly improve the speed of retrieval.

3. **Create effective knowledge management systems within Prospect:**

Information was hitherto held in different formats (both electronic and hard copy) and at various locations across Prospect. This made it difficult to locate information and share knowledge in a systematic way. The aim was to unify the different repositories of information and allow Prospect members, staff and other stakeholders to search across the system and access relevant information.

4. **Change work processes and staff training:**

The new electronic information systems would not just involve technology. The human element would also be critical: in establishing the information requirements; laying down new procedures; revising work processes; and applying modern management methods. This part of the project included process mapping involving staff, followed by an extensive programme of staff training, including management. The aim was to enhance service quality by improving work processes that are directly 'member facing', especially personal/legal casework and enquiry handling.

5. **Comply with Data Protection Act and related statutory requirements:**

Hitherto, Prospect did not have adequate systems or procedures in place to ensure compliance with legislative requirements. In particular, the union faced problems in

relation to storing and circulating emails, access to personal casework documents, and the distribution of members' contact details to branches. Since the EIS project would lead to more information being stored electronically, the aim was to ensure that Prospect complies with relevant legislation in relation to information storage.

Methodology and outcomes

A Project team was set up consisting of a Project Manager, a Project Monitor and a Steering Group chaired by the Project Sponsor and made up of representatives from across the union, including NEC (National Executive Committee) members.

The Project Manager ran the project and reported regularly to the Steering Group. The Project Monitor regularly met with the Project Manager to analyse the progress. In addition, the Project Manager reported every quarter with a report for the UMF.

The EIS project used techniques from the PRINCE2 project management framework (a process-based system for project management), and the project plan was regularly updated and altered as the project progressed.

1. **Electronic distribution systems**

One of the main objectives of the EIS project was to introduce effective electronic distribution systems. There were two particular aspects of this: the first was to improve the reliability of the union's records and collect absent email addresses; the second was to find a technical way to achieve bulk distribution of communications.

Prospect's Head of Information and Website Systems, Simon Parry, explains:

'We had previously been using our internal email software, GroupWise, to send out email to members. There were significant problems with this approach though. Staff were using local copies of members' email details, so when members updated their details on our membership system via the website or membership department, these new details were not being used. Linking into PIMS, our membership system, to use the member email details was technically problematic, difficult to use and time consuming, requiring someone to click through each email individually and, as a result, large distributions were impossible. GroupWise is not designed with bulk emails in mind, hence our internal mail server could get clogged up and normal day-to-day email could be heavily delayed. What's more, if a single email had been sent to more than 50 members at a time, even if it were 'blind' copied to all the recipients, most firewalls would block the email as Spam. As a result, Prospect had not been making the most of the opportunity email provided to distribute information to members. This also led to another problem: because we had not been in communication with most members by email, the initial email details we collected (on application forms, for example), had not been used. As a result, the details were very unreliable, since members receiving no email had little incentive to update their email address. An initial test email to Prospect reps and officials found that we had accurate email addresses for approximately 40 per cent on our membership database.'

Our target for the EIS project has been to increase this to 90 per cent.'

Improving member email records

To tackle the issue of different teams using their own email records to contact local reps, a first step to improving email records was a push to add the most up-to-date email details to the membership database. A test email was then sent to all active members to see how many bounced back. Following these steps, letters were sent to all active members who either had an incorrect email address or no email address on their membership record. This significantly increased the accuracy of the records. The importance of accurate email details was publicised in the member publications and procedures put in place to chase up bounce backs with a standard letter.

The new electronic distribution system

Different solutions that could deliver an electronic distribution system were investigated. Some of the key concerns were:

- The system must send out each email to a member individually, so that the email would not be viewed as Spam.
- There must be integration with the membership database.
- The bulk email system should not use the internal day-to-day email server, as this would cause disruption to normal work email.
- Usability and ease of access are key.
- Ideally, the system could be accessed remotely.

A bespoke web-based system was deemed the way to achieve these aims. Explains Simon:

'The bespoke web-based approach would allow us to provide a bulk email system that would integrate with our membership system, and allow us to design a user interface that met our requirements. This would ensure we could provide the ease of use and the options necessary. By placing the bulk email system on the intranet, an internal web-based facility for staff, the system could also be used when working remotely, as long as the user had access rights.'

The specifications for the new system were created internally within Prospect and the programming was outsourced. The bulk email system was launched in March 2007, and has been used extensively since then. There have been a few minor improvements since its launch incorporating user feedback, and the electronic distribution system is now an essential tool for staff. Indeed, the final driver for improved member email records was using the new electronic distribution system, as Simon says:

'We found that, after launching the new system, members' bounce backs were picked up more quickly thanks to the new bounce back handling function. Members who didn't receive the communications their fellow members received were quicker to provide accurate email details as well, as they perceived they were 'missing out'. By the end of the project we had email records for 88.2 per cent of our reps and officials.'

2. Document management systems

Introducing an effective document management system proved one of the most complex and difficult aspects of the project, but has ultimately provided an extremely effective system.

Staff were surveyed at the beginning of the project and this confirmed that there were

major issues with the current situation. Prospect staff had been storing documents in up to four places, but inconsistently and often duplicating hard copy with electronic versions. There were also major problems with retrieval; the survey showed that far more members of staff would ask a colleague or the originator for a document than use any electronic storage facility available. The key problems were:

- Single documents were often being stored in hard copy in multiple offices, as well as on a network drive, posted to the intranet and onto the website. These systems were not integrated and often led to duplication.
- There was no standard indexing system, making document retrieval very difficult.
- The storage procedures were ad hoc, resulting in many documents missing from various stores.
- The most comprehensive stores were still hard copy, taking up space and making items more inaccessible if not physically located in a certain office.
- Accessing documents remotely was very difficult.

Document management was identified as an area where further guidance was needed, so a training course was used, along with a consultant who specialised in 'information architecture', to advise on the best approach. Every team in Prospect was consulted before the solution was chosen. Simon explains:

'We looked at some of the systems that were available, and spoke to other organisations about solutions they had used. We also attended a major exhibition of document management solutions in central London. It became clear that this was a complex area and that large amounts of money could be spent with no guarantee

of success. The information architecture consultant was especially useful in helping us identify the best approach.'

The following key requirements were soon identified:

- The system must be able to integrate with Prospect's internal data structure, such as members, committees and branch structures that are kept on the membership database.
- There should be just one storage facility, with no duplication. All files should only have to be added once.
- The web-based approach was essential, as the document management system needs to be integrated with the website for members to access it. Also, this would allow users with different operating systems, based anywhere, to have simple access - something impossible to achieve with any other technology.
- A number of underlying principles have been identified as key to good information/document architecture; any system developed needed to adhere to these principles.

The plan was to develop the full specification for the system in house, consulting with staff and the information architecture consultant, before outsourcing the programming of the system.

The new Prospect 'library'

The new library system specification took a long time to develop, as it proved far more complex than originally envisaged. It was clear Prospect needed a bespoke solution, but this resulted in the need to define the relationships with internal member structures, such as branch structures, committees and roles, as well as the planned work on indexing documents. Similarly, once the specification was fully developed and the programming started, the development of the software took longer to develop than

envisaged, due to the complexity of the specifications. However, Simon emphasises that their meticulous approach paid off:

'Once the system had been developed, it was clear that the effort was worthwhile, as it was far superior to any system we had previously used.'

The key features of the new 'library' are:

- All items are now tagged using 'Metadata', the dominant standard of organising data used everywhere, from the iPod to Google.
- The document 'library' integrates seamlessly with the website for non-staff, and the intranet for staff.
- A sophisticated access rights system allows document security to be controlled very specifically.
- All uploaded items have a 'permalink' that never changes, meaning any item can always be found at the same address.
- Items are organised into collections for ease of browsing but can also be browsed through numerous other ways, such as topic, year or document type.
- A powerful search system also allows free text searching, either by collection, or through the whole library.
- The information required to index a document varies, depending on the type of document, to reduce the complexity of the upload process.

There was a lot of work involved in each stage of the development of the document library system, not only in the specification and development but also in populating the documents and training staff. However, says Simon:

'The final result is a very powerful document management system that has been received well both by members and staff. Finding information in Prospect is far easier than it has ever been before.'

3. Knowledge management systems

During the consultation with staff, they were asked where they felt that knowledge could be better shared using electronic systems. The following areas were identified:

- Staff information, such as contact details, teams and locations
- Branch and membership information
- Bargaining and negotiating information

News monitoring

These systems were all designed in house, with the development outsourced.

Staff information

The simplest development was an improved way of accessing staff information. A staff database was created which allowed staff to update their own records, but with key information controlled by the HR team.

Branch information

There was a high demand for branch information to be more easily accessible. This information had been stored and updated on the membership database, but was not very easy to share or view, which as a result actually discouraged the sharing of information.

A system was developed which displayed all branch information in one easy-to-view page. A graph system was included, so the historical membership figures could easily be seen.

A key knowledge sharing innovation was the addition of a system that allowed staff to sign up for automated membership information emails. The details of changes in membership and new joiners and leavers are automatically compiled into an email and sent at a frequency specified by the user.

Bargaining and negotiating information

The development of a bargaining and negotiating database was the most complex knowledge sharing innovation. The requirements of staff were compiled and a database structure was then designed in house before the programming was outsourced.

The database allows all members of staff to enter bargaining information for all the employers they are responsible for. Staff are prompted to update pay deals via email, and all staff can access the bargaining information their colleagues input, allowing trends, examples and statistics to be shared.

News monitoring

The final knowledge management development was a system that allowed staff to monitor news events better. A relatively simple system allows staff to define news searches on Google news, which links through to the Prospect intranet. All staff can then access these defined searches.

An email system was created that allows staff simply to subscribe to any particular search at a frequency they can define themselves. An email is then sent, with a summary and a link to any relevant news stories.

4. Work processes and training

One of the biggest challenges of the project was to create improved processes for handling member enquiries, particularly enquiries that become personal cases. There had never been a standard casework process

in Prospect. This had resulted in problems such as inconsistency in dealing with cases; no reliable statistics relating to how many cases were being dealt with; problems with the electronic storage of personal case information; and a lack of knowledge sharing regarding cases of a similar nature that might arise. In addition, when a member of staff left a role and had personal cases still ongoing, the people taking up the case found it very difficult to take up without clear information. This was especially problematic if the member of staff had left Prospect.

The initial consultation identified that there was a range of strong opinions about this aspect of the project. A working group was set up to develop the necessary new processes, with people from a variety of roles and teams across Prospect. A member of the senior management with employment law expertise was drafted in to chair the group. A number of dates were fixed, with a deadline set, so that any technical requirements could be drawn up in time for development if a software solution could be agreed upon.

The working group meetings were long sessions and a healthy discussion took place on all aspects of personal casework within Prospect. Eventually a consensus was reached regarding the development of a new, software based solution. Following the consultation with the working group, the requirements of the software were agreed upon. The key requirements were:

- The system should integrate with Prospect's membership database, as casework details must be linked to the member's record.
- The system must be accessible from outside the office, as staff that deal with personal cases are often out of the office.
- Full statistics must be available, so the types and number of cases can be monitored.
- There are a number of specific functions that are required, such as email storage, reminders and document uploading.

There were few alternatives other than a bespoke, web-based solution to meet these requirements. However, there were several technical difficulties in identifying the best solution to achieve some of the requirements, as Simon explains:

'We approached other organisations that deal with personal cases to investigate how they had tackled these issues. Although many of the organisations had quite different work processes, some of the technical issues were the same, and the best practices were taken on board.'

A system specification was developed in house and all staff was consulted on the final specification. Once the specification was complete, the actual programming was again outsourced.

The new 'casework' system

After the system was developed, there was extensive testing, which resulted in further work refining the system. A comprehensive training programme was rolled out across all Prospect offices and, following the training, the use of the system was made mandatory. Says Simon:

'The system is now heavily used, and the ability to have a standard way of tracking member cases has proved invaluable. Also, for the first time, Prospect now has accurate statistics on the number and types of cases dealt with.'

Some of the key features are:

- The casework system is intranet based, so the application can be accessed from anywhere with an internet connection, assuming the correct security rights.

- A reminder system allows the users to create bespoke reminders for key legal processes within the case.
- All case emails can now be stored in one place, which is accessible to all staff involved with the case.
- Types of events occurring in the case are monitored to provide further statistics.
- The membership database is updated automatically when the case is opened and closed, so people using the membership database are aware when a case is open.

5. Compliance with data protection legislation

Before the start of the EIS project, there was concern that Prospect did not have adequate systems or procedures in place to ensure compliance with the legislative requirements of the Data Protection Act. With the increase in the use of information that would be brought about by the EIS project; this would only become a more pressing concern in the future. Hence, it was critical to address these deficiencies as part of the EIS project.

Prospect had limited data protection expertise, so getting in some outside knowledge was the first stage. A data protection specialist was therefore brought in to help guide and advise the union through the entire process, as Simon explains:

'The first task we were advised to do was to identify a Data Protection Officer to take responsibility for day-to-day Data Protection issues, along with a Data Protection Controller, a senior manager accountable for data protection compliance within Prospect. From there, the main stages were specialist training for the key staff identified; consultation with staff, including work groups and one-to-one interviews; analysis of the results and identification of areas of

non-compliance and the associated risks; and implementation of the recommended changes, updating procedures.'

Relevant training was undertaken and the process of consultation with staff was started. The initial staff consultation had included the aim of improving Data Protection procedures, but following the advice from the consultant, some work groups and one-to-one interviews were set up to look at data protection issues in depth. Staff from all areas of Prospect were involved in the work groups and interviews, which were led by the external data protection expert, with support from Prospect's Data Protection Officer. Prospect members and reps were also included in the consultation, as well as staff.

Following this investigative work, the consultant compiled a report of the current practices within Prospect. Risks and failures were listed, along with an assessment of the risks for each area and how easily they could be fixed. Recommendations were prioritised and a plan of action devised. Some key recommendations were:

- Drawing up improved and comprehensive data protection policies.
- Ensuring all staff is trained in data protection legislation.
- Putting in place procedures to ensure all data protection requests are handled consistently and thoroughly.
- Making sure all third parties working with Prospect sign the relevant data protection agreements.
- Making a greater effort to inform Prospect members in official roles of their duties and responsibilities under the Data Protection Act.

These recommendations were implemented throughout Prospect, with all staff trained and the induction programme changed to incorporate data protection. The union's member publications were used to publicise data protection obligations to active members, and new policies and procedures were developed to ensure compliance. Thanks to the funding from the UMF, Prospect has now greatly improved its compliance with data protection legislation.

Conclusion

The EIS project has been an ambitious programme. A large number of new systems and innovations have been made to help modernise Prospect, and Simon Parry believes that 'the day-to-day life of every member of staff has now been changed in some way'. He sums up:

'We now collect, analyse and use information in a far more advanced way than before this project. We use email more, which has actually led to us communicating far more with members, and staff IT skills have been increased across the organisation. The storage and retrieval of documents has been completely transformed - information can now be found in one place and members benefit from being able to access information far more easily. More knowledge is now shared among colleagues too; making us better informed when we're dealing with our members. Consistent and accessible procedures are in place for dealing with personal cases and enquiries, all the new systems can be easily accessed remotely. Thanks to the work on data protection compliance, we now deal with membership data in a far more controlled and aware manner. This not only helps us comply with legislation, but it also means members

benefit from having their information used appropriately. Without the funding for this project, Prospect would not be as effective and informed as we now are. These changes have not only introduced a number of key new systems that have improved the working methods within Prospect, but they have also provided a vehicle for the wider modernisation of the union.'

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