

Case Study

## National Nuclear Laboratory

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The UK nuclear industry has undergone significant changes in recent years.

The latest Government announcement that new nuclear power stations would make a significant contribution to meeting British energy needs in the future, has caused this controversial topic to once again, become headline news. At the forefront of the energy policy will be the Government owned British Nuclear Fuels plc (BNFL) and its subsidiary, the National Nuclear Laboratory (NNL, formerly Nexia Solutions Ltd). As the only UK organisation with the skills, facilities and expertise to provide technical support in all aspects of the nuclear industry, NNL will lead the way in skills development and technologies across the full nuclear fuel cycle.

Employing over 600 staff and with an annual turnover of £75 million, NNL is built on a lengthy and successful track record in nuclear research and development. The business is focused on nuclear technology and delivers a full range of products and services to customers. The company is based across six separate UK sites with key customers including Sellafield Ltd, British Energy and the Ministry of Defence.

The National Nuclear Laboratory (NNL) for the UK is a Government-owned stand-alone commercial enterprise, which covers all aspects of the nuclear industry. The team work with academia, research councils, industry and other National Laboratories worldwide to ensure the UK shares and benefits from best practice and the latest advances in technology.

During 2006, a review of the project management systems used within NNL was undertaken. This highlighted that there were various project planning and control processes being employed across the business, with non-integrated systems being utilised to plan work and monitor performance. These processes ranged from widely recognised software such as Microsoft Project and Primavera P3 to manually completed spreadsheets and semi-automated databases. The lack of a single Project Management system and an inconsistent approach did not meet the objectives of the organisation, which was to achieve an Integrated Business System model.

The overall project aim was to

Streamlining  
our scheduling  
processes at  
each business  
level



implement a suite of integrated business systems that would ultimately provide a platform for the business to:

- Improve resource and process efficiency by reducing the volume of manual data transactions to enable staff to focus on added value activities.
- Improve reporting capability by integrating data from multiple systems allowing consolidation and reporting of resource, facility and financial data across the business.
- Increase data accuracy and integrity by ensuring source data is held in the appropriate system, maintained and accessed only by authorised individuals.

As part of this requirement NNL has implemented the Agresso Enterprise Resource Planning (ERP) system and uses this technology for the majority of its business/financial transactions and reporting. Agresso is based on Microsoft .Net technology and utilises a Microsoft SQL Server database for its storage. A key driver in upgrading existing planning tools, was their ability to complement Agresso and, in the future, share common data.

Alongside Primavera, NNL has used Microsoft Project 98 as a scheduling tool. There was general free access to this product across the organisation, which made adoption of standards difficult. Equally, as 98 plans were file based, it was very difficult to produce summary information, particularly at the Portfolio, Project and Resource levels.

Initially, NNL evaluated a range of enterprise based products in the market place, short-listing Microsoft EPM and Primavera P3e. After a detailed evaluation, NNL ultimately identified the Microsoft EPM 2007 suite as the product set that best met the organisations needs. Following a tendering exercise, Corporate Project Solutions (CPS) was chosen as the implementation partner.

Nigel Tinker, Project Manager at NNL comments

*"Our initial discussions with Microsoft, identified CPS as one of their Gold Standard implementers. During the tendering process, it was clear that CPS were more in tune with how we wished to implement the new system, and their outline programme was on a realistic timescale."*

Once the contract was in place, an early discovery and envisioning meeting was held with CPS to agree the overall programme timescales, the scope of the implementation and the deliverables. CPS follows the PRINCE2 methodology which meshed well with NNL's approach. This meant that the initiation and planning stages went very smoothly and that the implementation was under way extremely quickly. Further workshops were held to gather specific, detailed requirements. NNL are high on the planning maturity curve and as such had a range of sophisticated requirements including:

- Full lifecycle planning; opportunity to closure
- Total resource planning; project and non-project
- Complete cost management; labour, facilities and overheads
- Cross project dependency management
- Earned Value Analysis
- Multi level planning
- Sophisticated management reporting

*"The implementation was extremely satisfying; the NNL team were well qualified, experienced planners who had a high level of planning maturity and a set of complex requirements. It was exciting to work with such a motivated and challenging team to implement a solution that met all their expectations."*

comments Ivan Lloyd, Managing Consultant at Corporate Project Solutions

NNL's requirements for each of these areas were understood and agreed through the workshops and sign-off meetings and once a clear picture of the entire implementation had been formulated, CPS commenced on the configuration process. NNL staff were involved throughout the configuration process in order to facilitate a smooth handover when the system was complete.

Once the solution was in place, a period of User Acceptance Testing and training of end user groups took place. Initially there were in the region of 20 Planners and 50 Project Managers, Engineers and Resource Managers within the core user groups, although in total, 80 people across the business undertook training. The courses were tailored to NNL's requirements to the extent that the CPS training documentation has since proven to be an invaluable reference material for all users.

The implementation took nine months, from the initial meeting in mid-April, to full roll-out including training, to end users in mid-December. A phased roll-out was employed, allowing the planners approximately six weeks to transfer data over from the old system and familiarise themselves with the new processes in place, before the system was opened up to the project and resource managers. There was then a period after December of approximately three months, when the focus was on embedding the product and processes.

*"CPS have an excellent understanding of the day to day working level challenges faced by planners and how they wish to use the tool, but in addition, they clearly appreciate how the information can drive reporting at different levels of the business – this has helped us establish the new system across the business."*

Tinker adds.

Despite having a far-reaching requirements document, the choices that the configuration allowed, meant that NNL had to have more involvement in the configuration set up than was originally expected. The approach taken by CPS to hold a series of workshops with the respective business areas proved an effective method for building



on the existing requirements, greatly aiding the successful configuration process.

A significant learning point for NNL has been the level of change management that has been required during the implementation of this solution. Prior to commencement, it was believed that their planning team were reasonably consistent in their approach to planning and that their processes were well established. However, when everyone was moved on to one system, the fact that there had not been standardisation in all areas was clearly highlighted.

The implementation process flushed out a lot of plans that the planners didn't know existed and exposed planning issues from the Project Managers. There is a higher quality of data now available as more information is accounted for and standardised.

Tinker explains;

*"The process has thrown up more change issues and discrepancy in behaviour than we had originally anticipated, but these were swiftly addressed with the help of CPS. The implementation of EPM has enabled us to drive standardisation. All our plans are now in the one system, which is very easily searchable and has enabled us to quickly identify 'gaps' and address them."*

*"We still have some way to go to streamline our scheduling processes at each level of the business, although now we're using EPM we are rapidly carrying out the necessary refinement. As a business we also have the goal of using 'one set of numbers' across the business – to this end, we ultimately would like to share common data sets (eg. resource ID's, cost tariffs, WBS) between our two SQL based systems – the EPM and Agresso."*





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