



Fusion for Energy, Spain

Key Facts:

Organisation: Fusion for Energy

Description: Fusion for Energy (F4E) is the European Union's organisation that manages the EU's contribution to ITER, the world's largest scientific partnership aiming to demonstrate fusion as a viable and sustainable source of energy.

Employees: 450+

Industry: European Union Public Body

Website: <https://fusionforenergy.europa.eu>

Country: Spain

Products Used:

- EcoSys

Key Benefits:

- Project management efficiency improvement as employees focus on productive work instead of manual data manipulation
- Single source of truth provides reliable reporting through data integration and automation
- Increased speed and accuracy of cost forecasts throughout the project lifecycle
- Standardisation of work processes ensures consistency across projects

Fusion For Energy Uses EcoSys to Manage The European Contribution to the ITER Project

Identifying Goals

Fusion for Energy (F4E) is the European Union's organisation that manages Europe's contribution to ITER. The world's largest scientific partnership aiming to demonstrate fusion as a viable and sustainable source of energy. F4E executes multiple projects for the building of ITER at the site in Cadarache, France. The organisation works closely with industry and research organisations to provide the infrastructure and the components for the ITER machine.

Due to the complexities of project management, long project schedules spanning up to 10 – 15 years and the project's global nature, F4E needs accurate cashflow and project lifespan estimation and tracking.

Overcoming Challenges

Before choosing an enterprise project performance solution, F4E had some key challenges they needed to overcome: the employees needed to cut down the time in data manipulation, information gathering and the generation of reports. This also led to issues with reliability and accuracy of reporting.

To overcome these challenges, F4E now uses Hexagon's EcoSys enterprise project management solution to manage commitments and cash flow forecasts.

Schedule Integration

The contract managers work directly in EcoSys to enter their cashflow forecasts for all of their contracts. These are connected to Primavera Schedules, so the managers can either put their forecasted cost on a specific date in EcoSys, or associate the cost with milestones in the project schedule. When the schedule is updated, the timing of the cash flow forecast is also updated. This enables F4E to have an active cashflow forecast while providing a single source of truth as all the contracts and forecasts are managed in a central manner.



View of ITER Poloidal Field coils factory on-site, where four of the five coils that Europe is responsible for will be manufactured. © F4E

Budgeting

These cashflow forecasts are also used to create annual budgets. The annual budget process starts with the forecast in EcoSys. F4E's central budget team takes a snapshot of the forecast and processes this into a final budget. Once the year starts, F4E uses the EcoSys data to compare the updated forecasts against the budget. The ability to have a live view of the cashflow budget versus the baseline budget is crucial for a project environment, as any schedule changes or delays can have a severe impact on the forecast.

Forecasting

In addition to cash flow management, F4E also uses EcoSys for project lifespan estimation. For this, all the project managers are adding an estimate at completion (EAC) for all the work in F4E's work breakdown structure, all the way to the end of the project. These forecasts are also integrated with Primavera schedules, which makes them active, in real time. F4E has also integrated its financial systems and risk estimates with EcoSys, enabling the project managers to have a full view of the overall project costs and project lifespan in one centralised system.

F4E's central Project Management Department uses EcoSys to do the overall budget monitoring of all the projects. With EcoSys data, they can, straight-way, compare the project manager's current estimate at completion against the project budget. The central team also keeps "snapshots" of the data every month to review the cost trend over time to see if the cost forecasts are steadily climbing or falling.

Realising Results

By using EcoSys, F4E has received significant benefits across the organisation. The centralised cost team at the Project Management Department doesn't have to ask people for estimates and then manually integrate the data in order to be able to do analysis. Rather than manually inputting data, EcoSys has automated the process, and the team can redirect time to more valuable work, such as analysing the estimates or looking for trends in them.

Similarly, the employees providing the cash flow forecast, rather than manually updating and gathering data, and doing the whole exercise every time they want to do a forecast, can now automatically provide forecasts that are always accurate and up-to-date.

F4E has also integrated EcoSys with SAP Business Objects, their in-house enterprise business intelligence system. The API integration between EcoSys and SAP enables the F4E management and stakeholders to receive status reports with the latest, accurate data.

Kevin Baker, Head of Project Management Fusion for Energy, says: "With an enterprise project performance tool such as EcoSys, we can free our employees' time from manual data manipulation and gathering to productive work – with the same resources, we can now do much more. Also, the quality of reporting has increased and our management has access to the latest and most reliable forecasts any time, any place."



The tallest concrete of the Tokamak Building offers a spectacular and unusual viewpoint for works underway around the central Tokamak pit at the ITER construction site. © F4E

Moving Forward

Currently, F4E manages about 70 projects in EcoSys with tens of thousands of estimate and budget line items connected to Primavera. The system is used by approximately 50 users. These users have different types of access depending on their roles.

The initial setting up of EcoSys, including configuration, building the essential models, and the data integrations, took F4E and Hexagon approximately three months. F4E migrated all their existing data themselves after the Hexagon support team provided the spreadsheet templates within EcoSys. Currently, Hexagon's local partner PwC supports any new configuration and functional expansion F4E undertakes in EcoSys.

In the future, F4E together with PwC, is looking to include managing detailed estimates, such as labour quantities or unit rates, in EcoSys. PwC has already configured the basic cost estimation process which will be deployed in the near future.



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Kevin Baker

Head of Project Management
Fusion for Energy



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Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous — ensuring a scalable, sustainable future.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

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