

# ISPE

Powering up with DS PLM Express solutions



## Overview

### ■ Challenge

*ISPE needed to organize its product data, improve collaboration between departments, and streamline its design processes*

### ■ Solution

*ISPE uses ENOVIA SmarTeam Design Express to create a collaborative product data and development environment and CATIA PLM Express for 3D mechanical and piping design*

### ■ Benefits

*ISPE enjoys error-free document versioning, easy access to product data, and a 75% time reduction in complex piping installation projects*



### Leading power industry consultancy

Romania's ISPE (Institute for Studies and Power Engineering) provides consultancy and engineering services to domestic and international plant owners and operators in the public and private sectors. ISPE delivers sophisticated, integrated solutions in areas such as energy (power and heat generation; renewable energy sources), the environment, and municipal services and civil works.

ISPE projects include thermal and nuclear power plants, wind power, water and waste water management systems, air quality systems, environmental installations and structural engineering. The institute is involved in all aspects of a project from preliminary studies to detailed design and construction.

### Single version of the truth

ISPE's different engineering departments, each with its own specialization, needed to better collaborate on projects that sometimes involved more than

one discipline, such as electrical and mechanical engineering, architecture, structural engineering and construction. Not only did the Institute's CAD solutions differ from one department to another, but designs and documents were not always up to date or accessible to everyone in the company. "Versioning was a big concern because we lacked a single version of the truth," said Dragos Pascale, IT manager, ISPE. "Engineers could never be 100% sure that the drawings they were working on were the latest, up-to-date documents."

### 3D design and better collaboration

ISPE chose ENOVIA SmarTeam Design Express to organize its product documentation and to provide a collaborative development environment. It chose CATIA PLM Express to transform the company's 2D design approach into one based on 3D modeling. Today, the mechanical department uses CATIA full-time and the advantages are real and noticeable. "Our mechanical department, responsible for piping design, is so happy



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Dragos Pascale  
IT manager  
ISPE



with the 3D approach that, they are currently training additional engineers so that more people can use CATIA,” said Pascale.

### **Complex pipe fitting project in 75% less time**

CATIA's automatic pipe routing functionalities and automatic isometric drawing generation have greatly reduced design times. Prior to CATIA, ISPE engineers generated BOMs manually. “Manual BOM generation was a nightmare since it was easy to make a mistake or forget about a component or equipment in a large installation,” said Pascale. “Today, we are also able to automatically input pipe characteristics for stress calculations and do not have to enter each pipe attribute by hand, as we did before.”

One recent project involved installing a complex piping configuration and equipment within a very small area. CATIA was instrumental in helping ISPE engineers to optimize space allocation and fit in all elements. “Before CATIA, it would take us approximately one month to complete this type of piping configuration,” declared Pascale. “Now, with CATIA, we can do this in one week – a big increase in productivity.”

### **Workflow management and customer participation**

Having used ENOVIA to improve interdisciplinary collaboration, access to up to date information, multi-CAD management, and versioning control, ISPE now plans to use the solution to manage its workflows. “We are currently defining our workflows and plan to implement workflow management with ENOVIA by the end of this year,” said Pascale.

“We also plan to provide all our users with access to ENOVIA via a web interface, which would reduce costs since it is easier to maintain a few servers than many individual desktop configurations.” Opening the system to ISPE customers, to facilitate the validation process, is another objective for Pascale. “Involving customers via ENOVIA early so that they can see the status of a project and having them contribute by making their observations early on will considerably reduce costly late-in-the-game modifications.”

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