



FACTS AT A GLANCE

Company: Cryostar

Website: www.cryostar.com

Description: Cryostar, founded in 1966, is a pioneer in the design and manufacture of cryogenic equipment. The company specializes in cryogenic pumps, turbines, compressors, heat exchangers, and automatic filling stations for industrial gases, natural gases, and clean energy. Cryostar also markets LCNG and LNG refueling stations, as well as small-scale liquefaction plants to liquefy gas from the pipeline grid. Cryostar offers CO2-free power generation (pressure-let-down, geothermal, and waste heat recovery) by supplying turboexpandergenerator alone, or providing complete ORCs, all the way to delivering turnkey power plants.

Revenue: US\$264 million (210 million €)

Employees: 450 Industry: Power Country: France

PRODUCTS USED

- SmartPlant® 3D
- SmartPlant P&ID
- SmartPlant Review
- SmartPlant Foundation
- SmartPlant Instrumentation

KEY BENEFITS

- Lowered engineering costs for deliverables
- Simplified management of modifications
- Reduced on-site rework rate to less than three percent

CRYOSTAR SELECTS INTERGRAPH® SMARTPLANT® ENTERPRISE SOLUTIONS

Industry Leader Integrates Components for Plant Projects, Lowers Deliverable Costs

IDENTIFYING GOALS

For more than four decades, Cryostar SAS has specialized in designing and manufacturing cryogenic equipment. In the 21st century, the company has expanded its offerings to include process plants for natural gas and clean energy. To remain a leader in the industry and meet customer demands, Cryostar wanted the ability to integrate all components for a power plant, as well as gas liquefaction projects. These components included process, piping, instrumentation, structure, and equipment.

A completely integrated system would ensure higher-quality deliverables for projects and streamline the modification process. Cryostar selected Intergraph® SmartPlant® Enterprise solutions to integrate the design, process, piping, instrumentation, and structural tasks of its power plant and gas liquefaction projects.

OVERCOMING CHALLENGES

- Improve quality for full project deliverables
- Enhance time management for search and modifications
- Support pipes in 3D model

REALIZING RESULTS

Cryostar implemented Intergraph's SmartPlant 3D, SmartPlant P&ID, SmartPlant Review, SmartPlant Foundation, and SmartPlant Instrumentation solutions to ensure the quality and accuracy of the information transmitted by the 3D models and other deliverables it submits to customers. Additionally, the company was looking for a fully integrated solution to link the 3D module instrumentation to the P&ID, providing support for the pipes in the 3D model and automatically generating catalogs from this data.

SmartPlant Enterprise is an integrated solutions suite that provides full design, construction, materials, and engineering data management capabilities needed for the creation, safe operation and maintenance, and capital Project Life Cycle Management (cPLM) of large-scale process, power, marine, and offshore projects. The software's life-cycle data management also enables a smoother handover from EPCs to owner operators and for owner operators to more easily maintain, refurbish, or modify their plants.

Initially, there are approximately 20 Cryostar employees working with the Intergraph solutions, all of whom became operational on the software in just three months of training. Since implementation, Cryostar has substantially lowered engineering deliverable costs, has experienced a simpler management process for modifications of project documentation, and has reduced on-site rework rates to below three percent.

"The integration of our engineering and data management applications through the SmartPlant Enterprise solutions has shown us real-time productivity improvements," said Didier Bertrand, project manager at Cryostar.

"As we become more familiar with these applications, we expect to improve on these benefits, which will help us deliver higher-quality results to our customers and increase our competitiveness in the industry."

MOVING FORWARD

Cryostar plans to continue the integration of its engineering applications, including the company's most recent addition, SmartPlant Instrumentation.

ABOUT INTERGRAPH

Intergraph is the leading global provider of engineering and geospatial software that enables customers to visualize complex data. Businesses and governments in more than 60 countries rely on Intergraph's industry-specific software to organize vast amounts of data into understandable visual representations and actionable intelligence. Intergraph's software and services empower customers to build and operate more efficient plants and ships, create intelligent maps, and protect critical infrastructure and millions of people around the world.

Intergraph operates through two divisions: Process, Power & Marine (PP&M) and Security, Government & Infrastructure (SG&I). Intergraph

PP&M provides enterprise engineering software for the design, construction, and operation of plants, ships, and offshore facilities. Intergraph SG&I provides geospatially powered solutions to the defense and intelligence, public safety and security, government, transportation, photogrammetry, utilities, and communications industries.

For more information, visit www.intergraph.com.

