



FACTS AT A GLANCE

Company: GlaxoSmithKline Cork

Web site: www.gsk.com

Description: GlaxoSmithKline (GSK) is an industry leader, with an estimated seven percent of the world's pharmaceutical market. GSK produces medicines that treat major disease areas such as asthma, virus control, infections, mental health, diabetes, and digestive conditions.

Revenue: US\$45 billion

Employees: 99,900

Industry: Life Sciences

PRODUCTS USED

- SmartPlant® Foundation
- SmartPlant Instrumentation
- SmartPlant P&ID

KEY BENEFITS

- Time savings from improved access to accurate drawings, data, and documents
- More integrated and efficient collaboration with engineering consultants
- Leaner design processes
- Reduced design costs
- Cost savings from operating efficiencies
- Improved audit readiness
- Enhanced P&ID accuracy



IRISH PHARMACEUTICAL COMPANY EMPLOYS SMARTPLANT ENTERPRISE TO REDUCE DESIGN AND OPERATING COSTS

GSK Cork Discovers Significant Time Savings by Harnessing the Power of Intelligent Data

IDENTIFYING GOALS

GlaxoSmithKline (GSK) is a global pharmaceutical industry leader. GSK Cork is a highly automated manufacturing facility located in Currabinny, County Cork, Ireland, and includes a research and development pilot plant. It is the primary production site for a number of the company's best-selling products.

Prior to this, GSK Cork used a variety of applications for its engineering data, drawings, and documentation, including a legacy drawing management system, legacy document management system, and a custom instrument index on a Microsoft SQL Server database. Data resided on a number of standalone, unconnected applications, some of which were obsolete or unsupported.

"Our islands of information meant that numerous systems had to be updated with the same data," said Ed Collins, Integrated Engineering System (IES) Project Sponsor at GSK Cork. "This could lead to omissions and unreliable data, and additional work for engineering personnel."

Although some of the company's engineering consultants were using intelligent systems, it was not possible to take advantage of this intelligence after the transfer from the project phase to the operational phase of the plant life cycle.

OBJECTIVES

- Implement a lean and cost-effective integrated engineering system
- Use efficient workflows that create reliable data
- Support intelligent data through the entire life cycle
- Build on well-established applications with a path for growth

REALIZING RESULTS

GSK Cork launched a plan to implement a world-class, lean, and cost-effective integrated engineering system that would be used at all stages of the plant life cycle.

After a thorough search, GSK Cork chose the Intergraph SmartPlant Enterprise solution suite, beginning with three applications: SmartPlant Foundation, SmartPlant Instrumentation, and SmartPlant P&ID. The company made its decision based on a

number of factors, including:

- Intergraph offered a strategic solution that matched the company's strategy.
- Modularized solutions provided flexibility for future growth.
- SmartPlant Foundation could be accessed by a large number of users.
- The Intergraph solution suite was already being used by some of GSK Cork's engineering consultants.

To begin its implementation, Intergraph and the Cork team migrated all instrument data from the legacy system to SmartPlant Instrumentation. The team extracted drawings from the legacy drawing management system and loaded them to SmartPlant Foundation. Finally, they performed a phased migration of vendor documentation from the legacy document management system.

Initially, SmartPlant Enterprise implementation focused on Building 3 Module 1 of the Cork plant. Among other things, this involved generating 900 intelligent loops and migrating 34 P&ID drawings into SmartPlant P&ID. This module is fully intelligent and integrated.

SmartPlant Foundation is now used across GSK Cork. All groups on-site benefit from the site drawing management functionality.

SmartPlant Foundation delivers access to all plant drawings for the entire Currabinny site. The solution also links intelligent data as well for Building 3 Module 1 and promotes smart association with vendor documentation as well as applicable data and document sources. This enables easier, more streamlined connections to drawings and relevant data.

For site instrumentation management, project engineers and engineering service providers (ESPs) use the system to generate smart loops and associated smart instrumentation deliverables, auto-generated from the integrated system, that enables efficiency gains and quality of data across deliverables.

SmartPlant Enterprise supports vendor document management. Project engineers, maintenance personnel, and ESPs can view drawings and vendor documents. Project engineers and ESPs benefit from the management of change control. Audit logs are automatically maintained for all changes. "With SmartPlant Enterprise, engineers and technicians save time thanks to improved access to accurate drawings, data, and documents," said Collins.

Intergraph provided comprehensive implementation services to help GSK Cork make the most of its software investment. "We were very happy with the technical competence of Intergraph's personnel working with us on the project," said Collins.

MOVING FORWARD

In keeping with GSK Cork's commitment to pharmaceutical innovation, the company plans to further develop its use of Intergraph solutions. In the coming months, more P&IDs and loops will be converted into the intelligent SmartPlant Enterprise format.

TIME-SAVING BENEFITS OF SMARTPLANT ENTERPRISE

Instrument information loaded directly into instrumentation	40 percent time savings
Instrument data within system populates instrument specification sheets	25 percent time savings
Virtual wiring of loops on system	25 percent time savings
Loop drawings generated automatically from within the wiring module	80 percent time savings
P&ID electronic signoff and approval using workflow on system	50 percent time savings

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 to make processes and infrastructure better, safer, and smarter. The company'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, operation, and data management of plants, ships, and offshore facilities. Intergraph SG&I provides geospatially powered solutions to the public safety and security, defense and intelligence, government, transportation, photogrammetry, and utilities and communications industries. Intergraph Government Solutions (IGS) is an independent subsidiary for SG&I's U.S. federal and classified business.

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