



Corporate Headquarters: Chicago, Illinois

Challenge: In 2000, Innovene's Sarralbe, France plant updated its antiquated legacy system infrastructure with the OSIsoft Real-time Performance Management™ (RtPM™) Platform to provide real-time and historical information. Next, the company wanted to increase operational and development efficiencies. They sought to avoid multiple manual inputs and to minimize custom application development.

Why OSIsoft Won: In 2004, the Innovene, Sarralbe site implemented OSIsoft's Analysis Framework (AF) for faster application configuration to help employees analyze and optimize processes more efficiently. Innovene was impressed with the OSIsoft RtPM suite of products, and they were convinced that AF could effectively leverage the power of the new infrastructure.

RtPM Applications:

- Material Usage Tracking
- Operations Data Warehouse
- Production Analysis
- Production Data Integration to ERP
- Quality Monitoring/Analysis

AF Benefits:

- Lowered customization costs for operational processes by replacing coding with configuration
- Improved consistency throughout the organization by reusing templates for analysis
- Reduced maintenance costs by three percent
- Lowered systems management costs by a 3 to 2 ratio

OSIsoft helps Innovene run more efficiently: Analysis Framework greatly expands analysis capability

In 2001, Solvay and British Petroleum (BP) created a joint venture (50/50) named BP Solvay Polyethylene for their Polyolefins activities. At the beginning of 2005, the new entity became a wholly owned subsidiary of British Petroleum and joined Innovene (the petrochemical division of the BP groups).

Innovene, ranks among the fifth largest petrochemical companies in the world with 27 plants around the globe and more than 8,500 employees. Its global production is more than 40 billion pounds of polymers and chemical production capacity, \$15 billion in third party revenues, and \$12 billion in total assets. In December 2005, Innovene was acquired by the private British chemical groups INEOS. The Sarralbe Innovene site, located at the east of France, produces 450kT of polyolefins (PE and PP) and has 320 employees.



Francois Fasano
Information and Technology Manager
Innovene, Sarralbe site

"Employees trust AF as an environment they can go to for production information, development, and process modification. It's the one place they can utilize all of their analysis."

Innovene runs more efficiently with OSI



For 18 years, the Sarralbe site used SYGMA (SY = Systeme (System); G = Gestion (Management); MA = Matiere (Goods)) to manage the production process. In 2000, the company chose the OSIsoft® Real-time Performance Management (RtPM™) Platform, powered by the PI System™ to improve its operational infrastructure. Now, SYGMA is called SYGMAPI. The development cost of the SYGMAPI project was 220,000€uros. This first installation produced a full return on investment in approximately one year.

In early 2004, Sarralbe management migrated the existing SYGMA legacy system to OSIsoft Analysis Framework (AF). AF offered comprehensive analysis capability, integration, and a structured modeling method for the entire operation. Since the RtPM infrastructure was already in place, the 50,000 €uros or \$60,000 cost of installing AF was recouped within a few months.

Innovene used Pimsoft s.r.l. of Torino, Italy, an OSIsoft system integrator, to implement RtPM and AF at the Sarralbe site.

Analysis Framework – a complete application environment

Analysis Framework is an infrastructure for application creation. It provides an environment to structure and access data more efficiently with powerful analysis capability, and offers the user an easier, more powerful way to configure applications. AF allows you to organize processes as models, assets as elements, and properties as data objects.

AF combines all OSIsoft web-based technology, including a Service Oriented Architecture (SOA), COM connectors, and OLEDB. It also combines all OSIsoft analysis components, including Advanced Computing Engine (ACE), SQC, and Totalizer in one environment.

Innovene at Sarralbe has begun to realize many AF benefits, including:

- The ability to easily create or modify production models and elements as the market or business changes
- Ongoing, incremental return on investment as the company creates additional solutions for continuous current and future operations
- A conversion table for PI that can be instantly changed to the local language of the user
- Improved data consistency due to the reuse of templates
- Cost savings and reduced error from human data input or dispersed calculations via use of templates and reusability of work
- Time savings from reusable templates, modules, and calculations

Improved tracking material movement

An initial use of AF in the Sarralbe site was the control of real time product movement throughout the production cycle. The company developed a set of batch tracking applications in AF to track and monitor material movements for fiscal and operative issues. This application suite joined features of Analysis Framework and PI Batch Database. AF was used to define and model production entities, such as reactors, silos, and compressors. An AF analysis rule template controls material flow into the process tracing the batch composition in each capacity of the production line. Users configure templates to resolve their immediate analysis needs.

“AF enables more people to take ownership of their application and empowers them to solve problems faster,” says Massimo Galli, Operation & Delivery manager of Pimsoft. “The plug-and-play environment gets more people on board with performance management and operations optimization.”

AF has also provided a more efficient way to manage systems and applications. “If you can control your application, you can maintain it,” says Galli, “AF eliminates the need of an entire department to develop multiple applications, the need to

be heavily customized to the user's specification, and the expense of an individual interface or code. The time, work, and money required to maintain this non-OSIsoft type of model is very intensive."

Reusing AF templates

Template reuse is the source of the power and increasing rate of return from using the Analysis Framework. The Sarralbe site will use the same application and modules that helped track material movement for an entirely new solution. More integration with the company's SAP modules batch quality parameters have been achieved by configuring new attributes in this AF template and defining new calculation rules using AF templates.

The Sarralbe site now has a powerful framework for analysis that allows the scope of application development to grow by configuration, and facilitates application integration.

"Users are just a plug-in away from another solution," says Roberto Spoladore, president of Pimsoft. "The unending power and value in AF is in using the same template and simply pulling in another value for a completely new solution."

The company has future plans to integrate consumption and transfer data to and from production and SAP PP and PM (currently PP) modules. The Sarralbe site has already integrated production quality data with SAP's QM module via RLINK. This integration will provide a faster

The screenshot shows a software interface with a tree view on the left and a data table on the right. The table has columns for 'Code', 'Description', 'Unit', 'Value', 'Status', and 'Parent'. It contains multiple rows of data, including entries like 'CONVERT', 'CONVERT_PP', and 'CONVERT_PP' with various associated values and codes.

Centralization of knowledge is easily and logically stored in AF for use by the entire company. Cost savings in time and resources result from the ability to organize and map data, and repurpose work, such as the modeling and consistent naming conventions of company assets and processes. In this display, an AF table describes which type of quality calculation must be provided for a specific template or attribute.

The screenshot shows a form titled 'Création Lot Commercial' with several input fields for 'Group', 'Site selection', 'Code SAP', 'Status', and 'Product N° Lot'. Below the form is a table with columns: 'Product', 'Code SAP Product', 'Site', 'Transfer Lot', 'Quantity', and 'Dimension'. The table contains four rows of data.

Product	Code SAP Product	Site	Transfer Lot	Quantity	Dimension
ES-40902	STEREOT	PL207-02	PMAT0002	10.000	
ES-40902	STEREOT	PL207-02	PMAT0001	50.000	
ES-40902	STEREOT	PL207-02	PMAT0002	35.000	
ES-40902	STEREOT	PL207-02	PMAT0002	400	

AF provides logical sets of information for faster analysis. This display shows:

- Configuration**
Relationship between logical groups and equipments, material, and SAP codes
- Operative**
Material movements between equipment and the transfer
- Programmatic**
Easy and robust access to the framework through the AF SDK

Lot	Lot Type	Lot	Origine	Destination	Quantité	Date de Début	Date de Fin	Produit
100000	Lot	100000	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100001	Lot	100001	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100002	Lot	100002	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100003	Lot	100003	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100004	Lot	100004	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100005	Lot	100005	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100006	Lot	100006	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100007	Lot	100007	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100008	Lot	100008	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100009	Lot	100009	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101
100010	Lot	100010	PI0101	PI0101	100000	2011-03-01 00:00:00	2011-03-01 00:00:00	PI0101

AF enables the Sarralbe site to trace the movement of material throughout the production cycle. Batch tracking is accomplished via AF connectivity that allows reports to be imported into MS Excel. When equipment or process needs to be changed, a user adjusts elements and properties once and AF applies these changes to the entire model.

way to close the gap between the planned supply chain and actual production with real-time production orders from SAP based on production data from PI via AF.

Reduced costs for application development

Sarralbe was impressed by the cost savings that resulted from the ability to configure applications internally rather than paying for outside consultants. These savings far outweighed AF incremental licensing costs. As additional applications, templates, and modules are created by users, the company’s library of analysis resources grows exponentially for future use by the entire company. Other users within the company can then reuse applications and templates to solve new problems. This reusability allows the Sarralbe site to gain incremental return on investment at little or no extra cost.

“Employees trust AF as an environment they can go for production information, development, and process modification,” says Francois Fasano. “It is the one place they can utilize for all of their analysis. The more AF is utilized by our users, the more we get out of it.”



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