Owner/operators face many demands to minimize CAPEX and OPEX expenditures; deliver projects as quickly as possible; ensure safe, sustainable production; demonstrate compliance to meet regulatory authority requirements; and many more. To help meet these demands, Intergraph offers SmartPlant Enterprise for owner/operators (SPO).

SPO leverages the engineering design basis to provide an extensive portfolio of integrated, pre-configured solutions addressing key owner/operator work processes across the plant lifecycle. These processes leverage the underlying Digital Plant asset in the vendor’s repository and are supported by integrated engineering design tools. SPO offers a comprehensive platform to support critical initiatives such as process safety management and asset integrity. Date-stamping of all information changes and electronic workflows provide auditable traceability to demonstrate compliance for regulatory authorities. Our picture shows the Cuiling Zhao plant in China.

“We see more opportunities”

Philippe Marceau, Intergraph Executive Vice President for Europe, Middle East, India, and Africa, and Günter Mauß, Vice President Central and Eastern Europe, on challenges for Intergraph’s customers and the vendor.
Mr Mauß, what makes the markets go round?
Mauß: I would say there are three main trends. First the ability to cope with project work load — companies are forced to cover more and more projects with the same head counts. They have to deliver in a really tight schedule on budget.

The second is the pressure on margins due to more and more expensive feed stock. Politics is pushing toward green energy, so the energy prices are getting higher and higher. Moreover, additional regulations are released. The consequence: It becomes harder to compete in commodity markets.

Last but not least, there is another trend to recognize: the aging asset base — older plants, aging staff, less resources have impact in our customers’ success. We, from a vendor’s point of view, can really do a lot to overcome these challenges.

Mr Marceau, on a global scale we observe tremendous investments in shale gas. What does this mean for your business?
Marceau: I see more opportunities. Several mega projects in North America are launched because of the shale gas extraction. But this is just one point. When the shale gas is extracted — known as “up-stream” — you need to process it (“downstream”). Therefore a lot of facilities have been built, in Canada and in the U.S. Moreover, the U.S. is about to export shale gas to European countries, which means you have to erect plants to welcome the gas.

Mauß: In Germany we have initiated political discussions about LNG terminals in Wilhelmshaven. One goal is to become more independent from deliveries from Russia. But as you might know, in Germany this can lead to a never-ending discussion.

Marceau: The good side of our business is that the EPCs indeed are busy because they don’t focus only on Europe. They execute projects in the Middle and Far East, Brazil, Africa or China. So they have generated a high order intake rate, and we are able to participate on that.

Mauß: On the other hand, many of the German EPCs like Linde or Chemie Anlagenbau Chemnitz depend on the Russian market. Their customers are large companies like Lukoil or Gazprom. These firms operate old refineries which are poorly documented. With SmartPlant Fusion we are addressing those markets.

Let us talk about integrated engineering scenarios. Of course, this is very charming from the point of view of a single system provider. But the tool infrastructure of your customers is rather heterogeneous. There are many different tools of various vendors in use. How do you integrate third-party applications?
Marceau: You are right, we don’t have a choice, we have to integrate them. We know that ERP systems are very important for our customers. So we offer such integrations. Our material management solution, for example, is seamlessly integrated in SAP. If you are speaking of the integration of design tools, we will come into the market with something that is fairly unique.
You make me curious…
It is the capability to reference 3D information for other vendors within the SmartPlant environment without having to convert it. Since you don’t have to convert you really win a lot of time.

Mauß: Meanwhile, it is a proven concept by many of our customers.

Can you give us an example?
Sure. One of our customers works within a consortium with a PDMS user. With our technology, this firm immediately can reference intelligent PDMS data, or information from other systems such as Tekla. All these data represented in SmartPlant 3D are not dumb, they are intelligent with all attributes. You can use them e.g. for clash detection analyzes or for the export into drawings or the isometric generating system. But of course you can export Smart 3D into a PDMS format.

What is your opinion about the importance of the ISO 15 926 standard?
You are right, 2D data exchange is also very important. We are a member of the Fiatech committee, which is pushing that standard. So, we are working on this topic. We were also addressed to this by big companies like Bayer, BASF, and Evonik to join an initiative where all our competitors are represented to make a XML scheme for the exchange of data between different P&ID tools available. We are willing to contribute, but the progress here is relatively slow. And by the way, there is a similar approach coming from the Namur association. I would prefer real global approach of such standardization activities.

Marceau: The issue of exchange data based on ISO 15 926 with rich systems like Smart Plant is that you lose so much of information that is embedded in our data formats. The current ISO 15 926 is the lowest agreement in this field. Of course we know that for some projects it makes sense to use small packages like our CADWorx. So we really understand the difference between small, medium, and big projects. ISO 15 926 seems to me very tailored to smaller projects.

Are there lessons learned about the implementation of the SmartPlant Foundation? Because it is a very sophisticated approach.
Mauß: We have started with this integrated approach in a rather early state. Now we offer a fast track implementation bringing the customer up to speed in a short time frame. He can really recognize within the SmartPlant environment without having to convert it. Since you don’t have to convert you really win a lot of time.

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Mauß: We have started with this integrated approach in a rather early state. Now we offer a fast track implementation bringing the customer up to speed in a short time frame. He can really recognize first success stories quickly. And with the help of SPO these workflows do not end at EPC’s border because data can be handed over very effectively to the owner/operator. For example in Russia, large owner/operators already use our SPO, what will have an influence on the entire market. To put it in a nutshell: Our fast track offering is the answer of what we have learned in the past.
An owner/operator, for example, developed a workflow system similar to SmartPlant, also based on an XML approach to exchange data, some 15 years ago. This enterprise uses its own system as backbone and our SmartPlant technology for different applications. Our customers know this is the way they have to go. And for sure, implementation means efforts and investments. The fast track approach helps but additional work is involved. Customers really have to think of what are the right workflows for them. You have to identify areas where an increase of efficiency is feasible.

Marceau: With SPO preconfigured templates and workflows representing best practices come to the owner/operators. We don’t deliver just tool boxes anymore, but a software suite which is preset for specific questions like system completion.

How much of your innovation is really driven by the needs of your customers?
We are 100 percent fueled by our customers. The new version of Smart 3D, for example, was really a common work together with our customers. No doubt, before it was best-in-class, but then the customers wanted a more intuitive user interface, better administration tools and so on.

Mauß: This you also can recognize in our organization. Internally we operate a business development group on a European level. These colleagues identify trends in the market and innovations. I remember when we decided to launch the new product SPO. We had many meetings with large customers who were willing to open their internal processes to us to understand their needs. Sometimes I am really surprised how innovative Intergraph is. And to be honest, it is also a challenge for us from the sales-team to bring this ever-expanding portfolio into the market.

Can you give us an insight into the split of the revenues in terms of different industrial sectors like base chemicals or fine chemicals?
Marceau: I honestly don’t know. If we look at the regions there are some which are more chemical-driven. It is obvious that Middle East is ruled by the Oil & Gas industry. So it varies depending on where you are. I would say there is a rather good balance between the various disciplines.

Mauß: Let me drill a bit deeper into this question. You will realize for example that Bayer means for us in the main Bayer Technology Services (BTS), Bayer’s EPC. But there is enough to do to expand our footprint to the owner/operator side of that company. For sure this takes time, but we have already started this process.

The European and American EPCs are faced with enhanced competition from Korea and China. Does the same happen to you in the software vendor market?
Marceau: No. Just the traditional vendors are active there. In the EPC market you can observe a shift. Three or four years ago, in Middle East Korean EPCs like Hyundai Heavy Industry won nearly every project with the entire package including engineering, construction, and sourcing. But now something has changed. The Western EPCs are coming back, and the Koreans still get the construction part of the projects. One of the reasons for the success of the Koreans in the past was their price dumping strategy. But at the end of the day they make their business on the fabrication side.

In adopting your knowledge-based engineering approach, are the Chinese or Korean firms faster than the Europeans?
No, I don’t think so. Meanwhile you can say that today every company in the world is faster in deployment.

Intergraph regards itself as market leader. What is your benchmark then? To whom do you compare yourself?
Thank you for this comment! We don’t have a single competitor who really does the same we do. Closest to us is Aveva. But there is quite a distance between them and us…

…but the real competition comes from Microsoft and its Excel offerings…

…no, from in-house solutions. There are a lot of those tools in usage — not for 3D or P&ID design but beyond that. For material management for example we offer SmartPlant Material. The biggest competition comes from our customers, what we call legacy systems. For the people, it is difficult to go away from it because they put their blood, their passion into it.

Gentlemen, thank you for your comments!

Interview: BERNHARD D. VALNION