

NEWS ANALYSIS: IRAN IS RAMPING UP INVESTMENT IN A BID TO EXPAND ITS SHARE OF GLOBAL PETROCHEMICAL MARKETS

Refining & Middle East Petrochemicals

NEWS, DATA AND ANALYSIS FOR THE REFINING AND PETROCHEMICAL INDUSTRIES

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MAKING THE SWITCH

Christian Cravedi, head of ABB's oil, gas and chemicals business in the Middle East, India and Africa region, tells *RPME* that automation is playing an ever more prominent role in helping operators survive the current market downturn

ABB has a long and proud history of helping producers in the Middle East to increase productivity and reduce downtime by implementing highly automated technologies and systems. The Zurich-headquartered company is a rare example of a technology vendor in the region that can draw on a vast range of expertise from sectors like utilities, transportation, automotive and construction to name a few. For over a century, ABB has been successful in solving some of the world's biggest challenges having lived through the Great Depression in the US, the global financial crisis of 2008 and even the Two World Wars.

With the oil and gas industry passing through some testing times of its own, no company is better placed to support it through a smooth transition, says Christian Cravedi, senior vice president and head of ABB's oil, gas and chemicals business in the Middle East, India and Africa.

"Current market conditions have led to a fundamental change in emphasis in the oil and gas sector. We have moved from a

capacity focus when oil prices were high to improving productivity and cost effectiveness. With this change of emphasis, it is more important than ever for oil and gas companies to invest in process automation," he said.

Cravedi is quick to draw attention to the Sadara chemical complex in Saudi Arabia for

"Current market conditions have led to a fundamental change in emphasis in the oil and gas sector."



Real-time monitoring and remote control can improve productivity by up to 20% according to studies.



The IIoT is further driving plant automation.

which ABB serves as the main automation contractor. No other project in the region – and arguably worldwide – can demonstrate the company’s expertise better than Sadara, says the Italian born executive.

“For me Sadara is a proof that ABB has the right solutions, capability and number of resources, and is able to combine its global knowhow with local expertise. What we have been doing with Sadara is using ABB’s global presence from two main centers in two different continents – the US and Norway.

“We also have an amazing local structure that is physically developing the project together with the customer, and is going to remain together with the customer for the coming years as part of the long-term service support to ensure that the project is going to be run properly and supervised properly during the most important part when it has to deliver money to the customer.

For a project of this scale, resource management and coordination were and continue to be absolutely crucial. Apart from working with 15 different EPC contractors, ABB had to deploy over 100 people on site to provide

FACTBOX:

\$934mn

ABB recently sold its cables business to NKT Holding for almost \$1bn.





Automation technologies are key to improving plant profitability and the safety of employees.

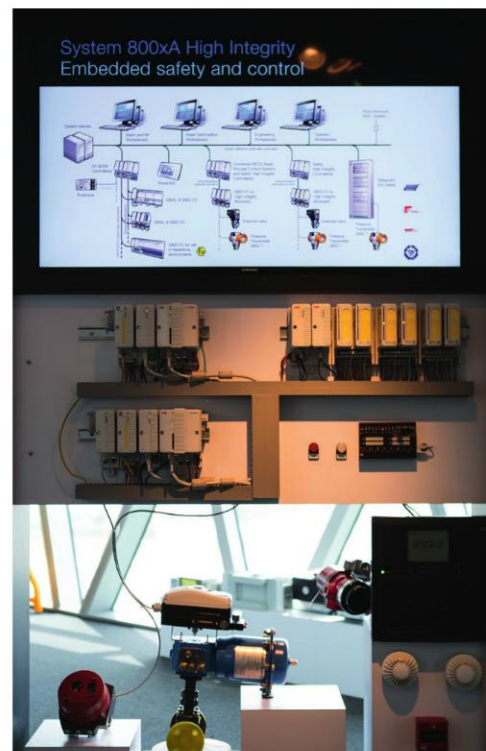


ABB has a wide range of oil and gas technologies.

technical support and advice.

“Project management is a mix of competences not only technical but also in terms of interaction, coordination and planning — it’s not just the pure technique,” Cravedi explained. Beyond its main responsibilities as a technology supplier, the company was required to demonstrate an aptitude for problem solving and deep understanding of how EPCs work. Most likely it was able to do that thanks to its former ownership of Lummus Global. Lummus now operates as a joint venture between CB&I and Chevron providing hydroprocessing technologies to the global oil and gas industry. Before selling the business, ABB took a decision to focus on product development and innovation but its technical knowhow of EPCs remains deeply embedded in its DNA. Recently the company launched a new growth strategy for oil, gas and chemicals in response to a wave of downstream investments in the GCC. As the region seeks to decarbonise its economy and enter the next stage of industrial development, technology vendors like ABB will be well positioned to tap into this growth.

“There is a renewed focus in this region, or maybe selectivity in certain countries — Saudi Arabia is a typical example — and we need to follow where the investment is going to be focused,” said Cravedi.

“You are going to be successful if you are going to satisfy your customer’s need and the

FACTBOX:

\$1.5bn

ABB invests half a billion US dollars into research and development every year.

next customer need in the region is going to be within chemicals,” he added.

Unsurprisingly, ABB sees Saudi Arabia as the market with the highest growth potential. Against the backdrop of Saudi Vision 2030 spearheaded by Deputy Crown Prince Mohamed Bin Salman, the Kingdom’s plans to develop its chemical and other non-oil related sectors are creating significant investment opportunities for companies like ABB.

“I think Saudi has a great potential and I am not saying anything new I don’t think. We see a real opportunity for the country to inject new life into its economy through a productivity and investment led transformation that could help ensure future growth, employment, and prosperity.

“It is time to invest in different kind of plants because the market is no longer going to pay for inefficiencies.”

“Adding as much value to products as possible in country is one way that producers in the Kingdom of Saudi Arabia and the wider GCC are looking to increase the margins in their export portfolio,” Cravedi said.

Heightened focus on integration elsewhere in the region is another key driver for the automation specialist.

“Integrated petrochemical projects are going to happen in many other places in the region. In Saudi Arabia alone there are currently two or three truly mega projects that are going to happen with Aramco and their different partners.

“However, if you look at the wider region, you will notice that the other GCC countries are starting to embark on their own downstream projects for obvious reasons. If you go further down the chain you will see that the further downstream you go, the more opportunities you have to add value,” Cravedi said.

These and other trends are likely to require substantial investment in state-of-the-art technologies to ensure plants are not just churning out products but adding value in a cost-effective and sustainable manner.

The oil and gas sector can certainly take a leaf out of other industries’ book, and nine out of ten times it can solve its problems by adopting technologies already in use in other sectors. Cravedi explained: “Outside of the oil [market] you can see a lot of synergies. Take for example automotive. They are

implementing so many new technologies and not on the production side. Just think of our cars today and our cars five or ten years ago. Now you can talk with your car. All industries are somehow collaborating in order to make best use of the technologies. Oil and gas is a different story and I think it is time to invest in different kind of plants because the market is no longer going to pay for inefficiencies.”

Innovations like the Industrial Internet of Things (IIoT), wireless technologies and the increased deployment of automation and instrumentation are increasingly being seen as the key to improving performance and driving down cost. As one of its core businesses, Wireless forms an important part of the ABB Group, which recently sold off its cable business for almost a \$1bn. The move largely points to where the future is headed not just for oil and gas but other sectors too.

“Wireless technology on the plant can make a big difference in terms of cost. Imagine how many millions of dollars we spend today to build the infrastructure just for cable supply and cable pulling. [Wireless] is a new technology to be applied in a certain environment. Is



ABB invests in making control rooms ergonomic.

this risk going to pay for what you get out of the plant? Fire years ago, no. Now I think they have to consider it because we are talking about millions of dollars that can be reused for something else.”

When asked about how he imagines the refinery of the future, Cravedi doesn't venture out into untrodden territory and sticks to the well-established mantra of 'Safety First' instead. His approach is exactly what the industry needs as refinery incidents have been on the rise in the past 12 months.

“The future never depends on one factor only. You can drive the future if you can imagine what is going to be the environment of the

future. The price of oil, the cost of labour and the availability of resources are all going to be part of it. Whatever the case, I would love to see a future that is first of all safer. We cannot afford to have one worker leaving home in the morning and never coming back. Secondly, the plant has to be efficient. And thirdly, it needs to be easy to operate, maintain, expand, and relocate.”

While in the past companies could afford to be skeptical about investing in new and unproven technologies, in the current oil price environment they may need to take a different approach, as Cravedi explains.

“Oil and gas customers need to be convinced to consider something new because in their view the risk versus the benefit is something that let me say yesterday did not make sense. Now the trend is changing, and they have realised that the risk versus the benefit is going to generate reward.”

Risk will always be a part of the oil and gas industry be that in a business or operations sense. As times become leaner, companies have a choice to make. They can either shape the future or be shaped by it. **RPME**

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