

# Chemical companies 'facing challenges'

**MANAMA:** With many new chemical projects being constructed and coming online, operators in Bahrain and throughout the Middle East are experiencing "growing pains", according to AspenTech Middle East sales vice-president Luc Chantepy.

The US-based firm is a provider of software and services to the process industries, and its customers include Bapco.

"AspenTech is committed to helping companies in Bahrain and the Middle East achieve operational excellence in chemicals production in a changing global and regional marketplace.

At the Bahrain-hosted Ethylene Middle East Technology Conference (EMET 2016), AspenTech president and chief executive Antonio Pietri spoke about the changing competitive landscape for ethylene production in the GCC.

According to industry reports, with its ethylene production having increased by 300 per cent, the GCC is the region with the fastest growth and has now reached 20pc of global production.

The global market for the petrochemical is expected to grow rapidly until 2018, with GCC posting high exports of ethylene – used as a key raw

**By AVINASH SAXENA**

material for producing textiles and plastics.

"Ten years ago, the Middle East enjoyed a production cost for ethylene of less than half of its nearest competitor. Today, that commercial advantage has narrowed significantly," said Mr Chantepy citing Mr Pietri's keynote speech.



■ Mr Chantepy

"The competitive position of Middle East ethylene production is under pressure due to global market factors altering the supply and demand landscape and challenging the export competitiveness of the region."

Mr Chantepy said ethylene plants have evolved into highly complex processing systems that can adapt to changing raw material availability and market demands for olefin products.

"Therefore, integrated design and operations control software used in plants greatly improve products quality, plant performance and result in a significant fast payback of capital investment."

Automated decision support is an integral part of a plant's communications landscape, including the use of innovative Advanced Process Control (APC), which enables manufacturers to make predictive decisions based upon models

that achieve faster operational efficiencies that deliver greater productivity and profitability.

With improved APC automated software tools, time and effort is dramatically reduced to implement solutions and achieve quicker benefits.

APC maintains tight control, reduces quality variance (up to 50 per cent), improves yields (up to 3pc), increases capacity (average 4pc), reduces energy costs (up to 10pc) and increases asset effectiveness.

In interviewing and working with customers, AspenTech found a need to make use of big data through analytics to operate smarter leading to asset optimisation, said Mr Chantepy.

"It is not some incremental extrapolation of today's technology but is about transcending all functional silos to drive

the highest possible financial return over the entire asset life cycle.

"It will harness many of the emerging technology trends that you've heard about over the last couple of years: Mobility, Internet of Things, Big Data and Analytics, Social – the ability to connect like-minded people to address problems in a collaborative manner – High Performance Computing and Cloud, 3D/Visualisation and Augmented Reality, Search and Pattern Recognition," he added.

"Context matters in the process industries, where upstream events impact downstream processes, where underlying physics, thermodynamics, and kinetics can be used to understand the current state and predict the future."

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