Press release

IMMEDIATE RELEASE

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Advanced Process Modelling Forum gathers process industries in London

Applications "capable of increasing profit by tens or hundreds of millions of Euros"

LONDON, 22 April 2016 --- At the 5th Advanced Process Modelling (APM) Forum in London this week, companies from across the process industries presented on topics ranging from accelerating development of the next generation of drugs to identifying hundreds of millions of Euros in operational savings in natural gas production.

Organised and hosted by Process Systems Enterprise (PSE), providers of the gPROMS APM platform, the two-day conference is a key event for process industry organisations focused on creating sustainable value through the application of high-accuracy predictive process modelling and optimisation.

In the sessions on formulated products, aimed at the pharmaceuticals, food & beverage, consumer goods and specialty chemicals sectors, presentations from AstraZeneca, Danone, Eli Lilly, Roche, Saint-Gobain, and Solvay described how new 'digital design' techniques are improving drug product manufacture, including development of robust continuous manufacturing processes, and accelerating time-to-market for new formulations.

A key event was the preview of PSE's forthcoming gPROMS FormulatedProducts environment for integrated design and optimisation of formulated products and their manufacturing processes. Developed in co-operation with specialists from several sectors, this allows scientists and engineers to screen formulations for end-user attributes, determine whether they can be manufactured efficiently, and then use the gPROMS platform's optimisation capabilities to optimise the whole formulation and manufacturing chain.

In the oil & gas, chemicals, petrochemical & refining sessions, where presenters included Bharat Petroleum, BP Exploration, DSM, Primetals, SABIC, SCG Chemicals, Shell, Sulzer, Velocys and Yara International, the focus was on large-scale optimisation applications capable of improving profit by tens or hundreds of millions of Euros. These included major new developments in oilfield optimisation capable of identifying millions of dollars a day in increased production, Shell's work on region-wide optimisation of natural gas processing facilities, Bharat Petroleum's innovative work in real-time optimisation of refinery crude transition, and DSM's operational optimisation of the utility systems supplying electricity and steam to large-scale industrial sites. SABIC described how model-based analysis helped reduce the time to screen anti-coking technologies for ethylene production from years to months.

PSE MD Costas Pantelides said, "A key focus of the conference has been the coming of age of equation-oriented (EO) process modelling tools. EO is a disruptive technology that for the first time makes it possible to optimise large-scale, complex process systems using high-fidelity models and apply techniques such as global system analysis to explore the design and operational space much more rapidly than previously possible. This is enabling companies to realise large gains in competitive advantage and dramatically accelerate innovation".

Keynote speaker Peter Drogt of DSM, standing in for Dorus van der Linden, said that advanced process modelling is crucial technology for the organisation to accelerate innovation and quantify process decisions. A key reason for the company's move to APM is the ability to have a single unified modelling platform across the process lifecycle.

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About Process Systems Enterprise Ltd

PSE (www.psenterprise.com) is the world's foremost provider of Advanced Process Modelling software and services to the process industries. Companies apply advanced process models to explore the process decision space rapidly and effectively, in order to reduce uncertainty and make better, faster and safer design and operating decisions.

PSE provides gPROMS family products built on its gPROMS® advanced modelling platform. These include the general-purpose gPROMS ProcessBuilder® equation-oriented flowsheeting environment for fluid processes, gPROMS FormulatedProducts™ environment for integrated design and optimisation of formulated products and their manufacturing processes and gPROMS ModelBuilder® mathematical modelling toolbox, plus the domain-specific gFLARE®, gOILFIELD™, gCRYSTAL®, gSOLIDS®, gCOAS®, gFUELCELL®, gUTILITIES™, gCCS® and gWATER® products. The company also provides expert consulting services based on its tools.

Use of PSE's technology and services results in faster innovation, improved designs of processes and products, enhanced operations, more effective R&D and experimental campaigns and improved capture and transfer of corporate knowledge across the organisation. The company is a recognised industry leader in areas as diverse as digital design of pharmaceutical processes, oil & gas safety, model-based reaction engineering and whole-plant optimisation of chemical processes.

PSE's global customer base of process manufacturing companies is served by operations in the UK, USA, Switzerland, Japan and Korea, and agencies in the China, Malaysia, Taiwan and Thailand, and its software is used for research and teaching in some 200 universities around the world. The company is committed to defining, developing and driving the adoption of next-generation process modelling software and workflows, and PSE's own ability to innovate was recognised with the award of the UK's highest engineering prize, the prestigious Royal Academy of Engineering MacRobert Award for Engineering Innovation.