# Press release

**IMMEDIATE RELEASE**
18 April 2019

## gPROMS FormulatedProducts 1.4 includes enhanced capabilities linking digital design to digital operations

**Release includes new capabilities resulting from £20.4m ADDoPT project.**

LONDON, 18 April 2019 --- Process Systems Enterprise (PSE), the Advanced Process Modelling company, today released version 1.4 of gPROMS FormulatedProducts, the mechanistic model-based environment for integrated digital design of robust formulated products and their manufacturing processes, and related digital process operation.

This release introduces major enhancements to both the gPROMS FormulatedProducts model libraries and the underlying gPROMS platform 6.0, including morphological crystallizer and sensor models to capture particle size and shape evolution, enhanced continuous direct compression models and improved wet granulation models. Platform enhancements include support for cluster computing, to significantly speed up execution of parameter estimation and other complex numerical solutions, and comprehensive global system analysis of dynamic systems for rapid exploration of the time-varying decision space and systematic risk and uncertainty analysis.

Version 1.4 also introduces two key usability enhancements: the ability to launch gPROMS FormulatedProducts Utilities from within the flowsheeting environment to quickly and easily configure material systems, and a user interface for rapid configuration of gPROMS FormulatedProducts models for use in Perceptive Engineering's PharmaMV for digital operation applications.

Many of the platform and library enhancements in the new release were enabled through the financial support of and collaborative activities within the PSE-led ADDoPT project ([www.addopt.org](www.addopt.org)). These enhancements were showcased on 28 March at the ADDoPT Digital Design event, which included presentations from AstraZeneca, GSK, and Pfizer on the application of mechanistic models for digital design and operation of formulation and manufacturing processes.

Sean Bermingham, VP Formulated Products at PSE, said: "This release constitutes a major improvement in terms of both capability and usability for mechanistic model-based digital design and digital operation, which will enable users across the formulated product industries to design more robust products and processes, increase R&D efficiency and reduce risk in innovation and technology transfer."

PSE continues to lead innovation in advanced process modelling capabilities for the pharmaceuticals, food & dairy, consumer products and specialty chemicals sectors. Through the support of the ADDoPT project and the Systems-based Pharmaceutics Alliance, by leveraging its experience in the energy and chemicals sectors, and via support of academic research and collaborative R&D initiatives, the company has created first-in-pharma mechanistic modelling tools, methodologies and workflows for both digital design and digital manufacturing.

**For editors**

Contact: Kristen Hunter, +44-20-8563-0888, [k.hunter@psenterprise.com](k.hunter@psenterprise.com)

'About': www.psenterprise.com/news/pr190418

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**About Process Systems Enterprise Ltd (PSE)**

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 within digital design and digital operations initiatives to explore the process decision space rapidly and effectively. This helps them to reduce uncertainty and make better, faster and safer formulation, process and product design and operating decisions based on deep scientific and process knowledge.

PSE provides gPROMS family products built on its gPROMS® advanced modelling platform. These include the gPROMS FormulatedProducts modelling suite, which provides mechanistic models for active ingredient manufacture, formulation and product performance as well as specific capabilities for optimising solids and crystallization process design and operation. PSE is committed to defining, developing and driving the adoption of next-generation process modelling software and workflows, and works in close collaboration with its major customers and selected R&D organisations to achieve this.

PSE's global customer base of Fortune 500 process industry companies and some 200 universities is served by operations in the UK, USA, UAE, Japan and Korea, and agencies in China and Taiwan.

**About gPROMS FormulatedProducts**

Built on PSE's gPROMS® advanced process modelling platform, gPROMS FormulatedProducts provides state-of-the-art digital design and operation capabilities to food, agrochemical and consumer product industries, enabling model-based design and optimisation of process operations such as reaction, crystallization, wet and dry milling, spray drying, wet and dry granulation, blending and tabletting. Additionally, it enables pharmaceutical companies to optimise the formulation and manufacture of drug substances and drug products using mechanistic models of materials and unit operations, and provides detailed analysis of in-vivo drug product performance.