



## NEWS ANNOUNCEMENT - FOR IMMEDIATE RELEASE

May 30, 2022  
Graz, Austria

### RCPE and InSilicoTrials to Digitalize and Accelerate the Development of Pharmaceutical Manufacturing Processes

RCPE and InSilicoTrials have agreed to an exclusive partnership to commercialize the XPS simulation software. Specifically developed for pharmaceutical applications, XPS allows companies to assess their process configurations in unprecedented detail and explore the decision space without time- and labor-intensive experiments.

Today, the Research Center Pharmaceutical Engineering (RCPE) and InSilicoTrials announced the expansion of their partnership to accelerate the development of pharmaceutical manufacturing processes by leveraging high-performance modeling and simulation. The approach enables organizations to innovate and optimize their process configurations without additional investments in technical infrastructure and significantly accelerates time-to-value when developing new drug products. RCPE's proprietary simulation will be offered as a standalone desktop application and integrated into InSilicoTrials' market-leading cloud-based platform.

"We're honored to have found the perfect partner in InSilicoTrials," said Prof. Dr. Johannes Khinast, Scientific Director of RCPE. "With today's announcement, RCPE and InSilicoTrials are combining their expertise to help engineers and researchers make data-driven decisions and deliver new levels of innovation. InSilicoTrials' comprehensive simulation platform combined with XPS creates a single-source repository for pharmaceutical development from discovery to dosage form."

"We are honored to have started this collaboration agreement with such a high-value technologically advanced partner," said Luca Emili, CEO of InSilicoTrials. "This step confirms the validity of our business model centered on the integration of computational simulations from the best research centers worldwide. With XPS, InSilicoTrials adds an important model to its platform, further enhancing its contribution to drug development and data-driven decision making."

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Dr. Thomas Klein, Business Director of RCPE, added: “It is exciting to see our technology ready for commercialization and be able to provide the software to customers worldwide. Our multidisciplinary team has demonstrated how our computational models can be used to create better quality products and more efficient processes. This collaboration and our shared developmental efforts truly set the gold standard for modeling and simulation in life sciences.”

## About XPS

XPS was developed at the RCPE in Graz, Austria. It allows an accurate and ultra-fast calculation of mixing processes for powdery media to an extent that was inconceivable until recently. XPS allows simulating up to 100 million (!) particles simultaneously and with appealing computing speeds. Thus, processes can be described in great detail that reality and simulation seem to merge.

With its unique program architecture, XPS uses the CPU and GPU to depict the behavior and transport of more than 100 million particles without additional computation time. Other standard tools reach their limits at a fraction of that amount. Therefore, the utilization of XPS leads to minimizing the implications of a trial & error approach. XPS is a novel, cross-sector simulation tool for particle-based processes in process engineering. It can be used for product and equipment development or optimization in various fields (Pharma, Food, Equipment manufacture, etc.). Particle-based process steps occur in about 80% of all chemical processes. The simulation of particle flows has been very complex and hardly possible so far.

## Tags:

RCPE, InSilicoTrials, Modeling, Simulation, Pharmaceutical Manufacturing, Pharma 4.0, Process Development



From left to right:  
**Thomas Klein, Luca Emili, Johannes Khinast**

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 InSilicoTrials

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### RCPE

The Research Center Pharmaceutical Engineering (RCPE) is a global leader in pharmaceutical process engineering. The center supports its partners in the development and manufacture of innovative medicines.

Our science enables tomorrow's medical discoveries and improves patients' lives worldwide. The experience and expertise of our multi-disciplinary team and our unique capabilities in simulation, AI, (nano-) material science, process design & quality control, as well as process monitoring and quality assurance, redefine the boundaries of what is possible and provide cutting-edge, scientific solutions tailored to our partners' needs.

As a non-profit, private company owned by Graz University of Technology (65%), the University of Graz (20%), and Joanneum Research GmbH (15%), we combine outstanding science, business, and industry in an application-oriented approach.

[www.rcpe.at](http://www.rcpe.at)

### InSilicoTrials Technologies

InSilicoTrials is an emerging startup founded by a team of life science, cybersecurity and digital innovation experts, which aims to revolutionize Healthcare through an innovative digital simulation platform.

Today Modeling and Simulation can help companies reduce by up to 50% the time-consuming and costly development of new drugs and medical devices, as well as accelerate subsequent registration / certification processes. Though regulatory agencies are endorsing Modeling and Simulation, many small and medium-sized biotech organizations may lack the IT infrastructure, specific software, and high expertise needed to develop and use models.

InSilicoTrials have developed a cloud-based platform where complex computational simulations run in an easy and cost-effective way. The company selects and collects the best computational models developed by top scientists around the world and integrates them into a scalable R&D-IT platform. This makes it easy to run validated models without specific computational knowledge, with an innovative licensing approach.

[www.insilicotrials.com](http://www.insilicotrials.com)

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