



PROGRAM

AI FOR THE PROCESS INDUSTRIES

WEBINAR | 11 & 12 JUNE 2026

DAY ONE - 11 JUNE 2026

SESSION OPENING

- 9h-9h10** **Welcome**
Jean-Pierre Dal Pont, SECF and Tristan Cazenave, LAMSADE, Université Paris Dauphine – PSL
- 9h10-9h40** **Inspiring talk**
The Use of AI and Automation in Fine Chemicals R&D
Frédéric Gauchet, France Chimie

SESSION STRATEGY AND INNOVATION

Chair: Jean-Pierre Dal Pont, SECF

- 9h40-10h10** **AI & Chemistry: Opportunities and Challenges in a Context of Global Competition**
Hélène Moumrikoff, France Chimie
- 10h10-10h40** **From AI Decision tools to AI as a cognitive mentor that strengthens innovators' reasoning**
Séverine Herlin, Vianeo

10h40-11h20 **BREAK**

SESSION ANALYTICS

Chair: Valérie Lucas, Groupe Dehon

- 11h20-11h50** **AI, Machine Learning and Analytical Sciences for the process industries: tools and applications**
Sebastien Preys, Ondalys
- 11h50-12h15** **Machine learning and nonlinear chemometric approaches for QC and PAT**
Andreas Niemöller, Bruker Optics GmbH & Co. KG
- 12h15-12h35** **Joint spectral-spatial data augmentation for hyperspectral imaging of plastic materials using GANs and residual noise from Savitzky-Golay smoothing**
Marion Lacoue-Negre, IFP Energies nouvelles

12h35-14h LUNCH TIME

SESSION PROCESS INDUSTRIES

Chair: Xavier Montagne

14h-14h30 | **From predictive to decision-making digital twins for industrial applications**
Élie Hachem, Mines Paris – PSL and Director of CEMEF

14h30-15h | **Digital Engineering: The Digital Process, Asset and Project**
David Cameron, University of Oslo

15h-15h30 | **How could AI accelerate the transition to more sustainable chemical products?**
Guy-Noël Sauvion, Former Fellow at Solvay

15h30-15h40 BREAK

SESSION MATERIALS

Chair: Valérie Lucas, Groupe Dehon

15h40-16h05 | **Managing the ML Lifecycle in Industrial Control: Lessons from Integrating Research, Validation, and Deployment**
Bogdan Penkovsky, Alysophil

16h05-16h30 | **From Experiments to Data-Driven Polymer Design: Machine Learning Across Scales**
Khalid Ferji, LRGP - Université de Lorraine

16h30-16h50 | **Machine Learning Driven Optimization of Ring-Opening Polymerization in Flow**
Glenn Clothier, LCPO

16h50-17h BREAK

ROUND TABLE

Chair: Guy-Noël Sauvion, Former Fellow at Solvay

17h-17h30 | **How AI will Change the Role of Process Engineers?**
Yvon Gervaise, Severine Herlin, Guo-Hua Hu, Valérie Lucas, Sébastien Preys

SESSION OPENING

9h-9h10

Welcome

Jean-Pierre Dal Pont, SECF and Tristan Cazenave, LAMSADE, Université Paris Dauphine – PSL

SESSION OPERATIONS

Chair: Nicolas Roques, Syensqo

9h10-9h40

Exploring the Role of AIs in the Development of the "Sustainable by Design" approach

Natalia Quisel, Veolia

9h40-10h10

AI in Industrial Processes: How Can Rubber Mixing Benefit from a Data-Driven Approach?

Florent Padois, Hutchinson

10h10-10h40

Our journey from MANUFACTURING to SMARTfacturing - Miss the shift, miss the future!

Michelangelo Canzoneri, Merck

10h40-10h50

BREAK

10h50-11h15

Real-Time Industrial Wastewater Quality Prediction Using AI/ML: Operational Results and Lessons Learned

Michael Kuhns, Lquisens BV

11h15-11h40

From AI to industrial performance: Why adoption, not algorithms, sets the limits

William Guerin, ADM Animal Nutrition

SESSION AI AND PROCESS CONTROL

Chair: Nicolas Roques, Syensqo

11h40-12h00

Continuous Nested Monte Carlo Search and Nested Rollout Policy Adaptation for Chemical Processes Planning

Lotfi Kobrosly, LAMSADE, Université Paris Dauphine – PSL

12h00-12h20

Large language models for high-level computer-aided process planning in a distributed manufacturing paradigm

Helge Spieker, Simula Research Laboratory

12h20-12h45

AI for materials innovation within process industries

Laurianne Moity, Syensqo

12h45-13h45

LUNCH TIME

SESSION PROCESS DEVELOPMENT AND DRUG DISCOVERY

Chair: Tristan Cazenave, LAMSADE, Université Paris Dauphine – PSL

- 13h45-14h15** **Machine Learning to accelerate RNA structure-based drug design: current challenges and opportunities**
Vincent Mallet, CBIO, Mines Paris - PSL, Institut Curie
- 14h15-14h45** **Designing shape and function with DNA molecule at the nanoscale**
Gaëtan Bellot, INSERM, France
- 14h45-15h15** **Rethinking Process Development: Data, AI, and Cause–Effect Relationships**
Lilivet Ubeira Ruiz, Sanofi
- 15h15-15h25** **BREAK**
- 15h25-15h50** **Formulation Prediction of Pharmaceuticals Using Machine Learning**
Yves Roggo, Novartis
- 15h50-16h10** **Algorithmic Improvements for Multi-Steps Retrosynthesis**
Milo Roucairol, ICRéDD, Hokudai
- 16h10-16h30** **Monte Carlo Tree Search for Molecule Design**
Mehyar Mlaweh, LAMSADE, Université Paris Dauphine – PSL
- 16h30-16h50** **Leveraging self-supervised representations for protein optimization with low sampling budgets**
Marcos Bolanos, ESPCI
- 16h50-17h10** **DSMC.2: A Monte Carlo Tree Search-based Search Model for Multi-Objective Drug Design**
Yali Lyu, Imperial College London
- 17h10-17h30** **Constructing and explaining machine learning models for the exploration and design of boron-based Lewis acids**
Juliette Fenogli, École Normale Supérieure – PSL
- 17h30-17h45** **WEBINAR WRAP UP**
Jean-Pierre Dal Pont, Tristan Cazenave, Guy-Noël Sauvion

ONLINE REGISTRATION

<https://premc.org/pds26/>