



PRESS RELEASE

14th Forum Teratec – Let's Invent the Future!

Ecole Polytechnique – Palaiseau

<http://www.teratec.eu/forum/>

Simulation and Big Data, technological challenges and diversity of use: it will be our theme for this year, gathering more than 1 300 professionals with specific areas dedicated to 70 exhibitors. These two days will be marked by plenary conferences, roundtables, workshops, and networking events.

Bruyères-le-Châtel, May 20th, 2019 – Europe with new technologies coming at the heart of our future daily lives will be the focus of this new edition of the Forum Teratec, bringing together a panel of well-known and recognized experts providing a breadth of exchanges and content during these two days. For the first time speaking at the Plenary Sessions chaired by **Daniel Verwaerde** President of Teratec, this 14th edition will welcome **Mariya Gabriel**, European Commissioner for the Digital Economy and Society.

Plenary Sessions: the meeting place for technological experts and industrial users!

- **Which Europe for HPC?** **Daniel Verwaerde** will explain how far Teratec is a key player in supporting HPC in Europe. **Mariya Gabriel**, European Commissioner for the Digital Economy and Society will also present her vision of HPC and European ambitions in this field.
- **Simulation, Artificial Intelligence, High Performance Computing:** innovation is the spearhead of France's strategic autonomy. **Emmanuel Chiva**, Director of the Defence Innovation Agency at the Ministry of the Armed Forces will testify to the importance given today to defence innovation. The Defence Innovation Agency whose missions are to coordinate, amplify and accelerate innovation benefiting the Ministry is highly engaged to anticipate technological breakthroughs in order to maintain France's operational excellence and strategic autonomy.
- **Making the digital transition a success for French industry:** **Philippe Varin**, President of France Industrie will explain why digitization must be a priority for SMEs and Midcaps. He will present all challenges of this digitization and define the expectations of France Industrie and the National Industry Council towards suppliers of digital technologies, and more specifically to the world of HPC.

- **NewSpace, breaking through European space: Jean-Yves Le Gall**, President of CNES will explain how CNES intends to maintain scientific excellence while developing its industrial ecosystem as well as its international cooperation, facing arrival of new private companies whose leading players grew with the development of Internet.
- **Digital architecture, the heart of the connected and automated vehicle: Matthias Traub**, Head Automotive IoT and E-Architecture from BMW will demonstrate how his group is anticipating trends not only to "reinvent" the car with digital services offered, but also provide its embedded electrical/electronic architecture within an agile platform designed to host and update all applications and services.
- **The Intelligent Factory: Mustapha El-Bouchouafi**, Managing Director of Hexagon Manufacturing Intelligence France will talk about the concept of an intelligent plant yet complex to define, and explain why and how ? IoT technology is about to reach its required level of maturity to achieve autonomous connected ecosystems.
- **GPU acceleration for processing large amounts of data (AI): Marc Hamilton**, NVidia's Vice President for Solution Architecture and Engineering will expand on this trend and provide the keys on how best to embark on GPU acceleration.
- **New Technologies for Data flow processing: Thierry Pellegrino**, VP & General Manager of HPC at Dell EMC will explain how to "unlock" the value of data to drive business decisions.

The Roundtables: focus on health and mobility

Two roundtables will address the themes of tomorrow's Health and Mobility with participation of most major players from the ecosystem: Atos, Bechtle, CEA, Cray Computer, DDN, Dell EMC, HPE, Mellanox Technologies.

Technical and application workshops: state-of-the-art HPC/HDA and Machine learning (AI)

Eight workshops facilitated by experts on Wednesday, June 12, will provide an update on emerging technologies and new application areas for HPC, digital Simulation, Big Data and AI.

- **Digital twins.** This workshop will provide answers with practical examples of how to make the transition from concept to reality in various industrial sectors and a variety of application areas.
- **Quantum computing.** This workshop will present the current state of investigations in some fields of applications with their upheavals implied by quantum computing: partial differential equations (PDE), combinatorial optimization, inversion of linear systems, materials science, chemistry, artificial intelligence...
- **Environment, natural resources and climate change.** This workshop will review major related issues and new technologies (IoT, Simulation, HPC, HPDA, AI...) currently used by main players in the field.
- **Digital and data sciences for precision medicine.** This workshop will present examples of digital tools under development or already operational for personalized medicine.
- **Machine learning & predictive maintenance:** Feedback from experience and best practices in the use of Machine learning and predictive maintenance to better anticipate failures, control machine downtime, improve machine lifecycle or reduce spare parts inventories are such exciting topics that will be discussed in this workshop.
- **Additive manufacturing & composite materials.** This workshop will review the latest advances in simulation with interventions from industrialists and academics working in the fields of metal additive manufacturing and composite materials.
- **Data handling and management.** This workshop will explain how to properly manage the amounts of data generated by digital simulation project works, large scale experimental devices or sensor networks.

- **Autonomous systems.** Major players in the sector will present their research and simulation tools for land, sea, air and space autonomous systems and vehicles, whether civil or military.

For this edition, presentation of the 2019 Trophies for Simulation and Digital Technologies co-organized with L'Usine Digitale by Teratec and its partners from the CEA and Inria will end first day of the Forum preceding a festive and friendly evening on the lakefront of the Ecole Polytechnique, organized with Intel.

During these two days, an exhibition will welcome more than sixty major players from industry and new technologies as well as innovative start-ups to present their latest innovations, willing to draw the world of tomorrow in front of you.

For your convenience when coming to the Forum and to enjoy **a shuttle service dedicated to media upon request is available**, please do let us know at the following email address: teratec@kanirp.com

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