Press release
June 29th, 2020

IFP Energies nouvelles and Inria join forces for the energy transition

IFP Energies nouvelles (IFPEN) and Inria are launching a strategic partnership on high-performance simulation and Artificial Intelligence (AI) for the exploitation of data for energy transition. This partnership aims to propose innovative solutions based on the synergy between IFPEN's and Inria's skills in the fields of transport, energy, environment and digital sciences and technologies.

The collaboration between IFPEN and Inria is aimed at accelerating the development of new competitive and environmentally friendly technologies, in line with the ambitions of the National Low Carbon Strategy (SNBC).

The strengthening of an existing agreement, extended to energy transition

In 2015, IFPEN and Inria signed a framework agreement for collaboration in the field of high-performance and real-time scientific computing (HPC) applied to energy optimisation and the environment. The success of this initial research work between the two organisations highlighted the value of pooling their skills and underlined the importance of combining digital advances with the development of innovations for the energy transition.

The new joint research laboratory "HPC/IA/HPDA Convergence for Energy Transition" complements and extends the area of collaboration to Artificial Intelligence (AI) and High Performance Data Analysis (HPDA). It will be run jointly by the scientific directorates of the two organisations with an initial annual budget of €2 million.

The first fields of application

Five research themes have already been jointly identified and will be launched in October 2020, to support the development of digital twinning and to design digital tools to support innovation for researchers:

- Modeling and monitoring of floating wind turbines
- Acceleration of simulations based on complex modeling
- Assisted discovery via molecular simulation of new catalysts for transforming raw materials (biomass, solar energy) into biofuels and bioproducts.
- Modelling the 4D time evolution of sedimentary basin deformation

- Knowledge management and selective search assisted by AI approaches of multiform documentary data.

“This new partnership illustrates our common will to put digital transformation technologies at the service of the energy transition, and thus to contribute to the development of technological innovations”. **Pierre-Franck Chevet**, IFPEN Chairman.

“The intensification of our collaboration is part of the dynamics of Inria's new contract of objectives and performance, Ambition Inria 2023. The complementary nature of our expertise will make it possible to both pose and solve scientific challenges and to accelerate the dynamics of innovation”. **Bruno Sportisse,** Chairman and CEO of Inria.

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About IFPEN
IFP Energies nouvelles (IFPEN) is a major research and training player in the fields of energy, transport and the environment. From research to industry, technological innovation is central to all its activities, structured around three strategic priorities: sustainable mobility, new energies and responsible oil and gas.

Site : www.ifpen.fr

About Inria
Inria is the French national research institute for digital science and technology. World-class research, technological innovation and entrepreneurial risk are its DNA. In 200 project teams, most of which are shared with major research universities, more than 3,500 researchers and engineers explore new paths, often in an interdisciplinary manner and in collaboration with industrial partners to meet ambitious challenges.
As a technological institute, Inria supports the diversity of innovation pathways: from open source software publishing to the creation of technological startups (Deeptech).

Site : www.inria.fr