



École des Ponts ParisTech orders a latest generation radar for high-resolution rainfall observation

The company Selex is to supply and install an X-band dual polarisation radar system for École des Ponts ParisTech. The signature of the contract, which follows a Europe-wide invitation to tender, is an important stage in testing the contribution of the technology to urban water management and, the protection of populations and infrastructures, while also reducing pollution.

Band-X radar is a remote detection system used to: estimate rainfall at a high resolution, improve rainfall forecasting and model rainwater run-off in the city. This is an innovative technology that offers multiple advantages compared to traditional meteorological radar systems (C or S band): greatly enhanced spatial resolution, reduction in fixed echoes, a more compact and less costly system.

This acquisition is the outcome of fruitful collaboration by the “Meteorology and Complexity” research group at LEESU (Water, Environment and Urban Systems Laboratory) and the Chair of “Hydrology for a Resilient City”, underpinned by a partnership with Veolia. It was made possible by the European Union (Interreg NWE RainGain project) and the Île-de-France Region (RadX@IdF project), with the support of research networks in Île-de-France working on sustainable development (R2DS) and complex systems (ISC-PIF).

The RadX@IdF and RainGain projects also help to reinforce research and innovation synergies at a regional (Seine Saint Denis and Val de Marne general councils, Véolia and Météo France) and European level (Imperial College London, Technical University of Delft, Catholic University of Louvain and their partners). Beyond Europe, collaborations are being developed on similar experiments in Japan (TOMACS) and the United States (CASA).

This will reinforce École des Ponts ParisTech’s position at the cutting edge of research and innovation, and in the training of future environmental engineering executives. It will offer new responses to the challenges of the resilient and sustainable city.

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