



### **SINOPTICA - Satellite-borne and IN-situ Observations to Predict The Initiation of Convection for ATM**

The SINOPTICA project aims at exploiting the untapped potential of assimilating remote sensing (EO-derived and ground-based radar) as well GNSS-derived datasets and in situ weather stations data into very high-resolution, very short-range numerical weather forecasts to provide improved prediction of extreme weather events to the benefit of ATM operations. This will be done by setting up a continuously updated database of remote sensing-derived, GNSS-derived and in situ weather stations variables, in combination with an automated assimilation system to feed an NWM. The usefulness of deploying dedicated networks of sensors to monitor atmospheric variables at high spatial resolution in the vicinity of ATM "hotspots" such as airports will be investigated as well. SINOPTICA weather forecast results will be integrated into ATM decision-support tools, visualizing weather information on the controller's display, and generating new 4D trajectories to avoid severe weather areas. The usefulness of the newly developed SINOPTICA tools will be monitored during the project and evaluated, thanks to the involvement of ATM stakeholders in the project consortium and advisory board.

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**Find out more:** <https://cordis.europa.eu/project/id/892362>