



IIMEO

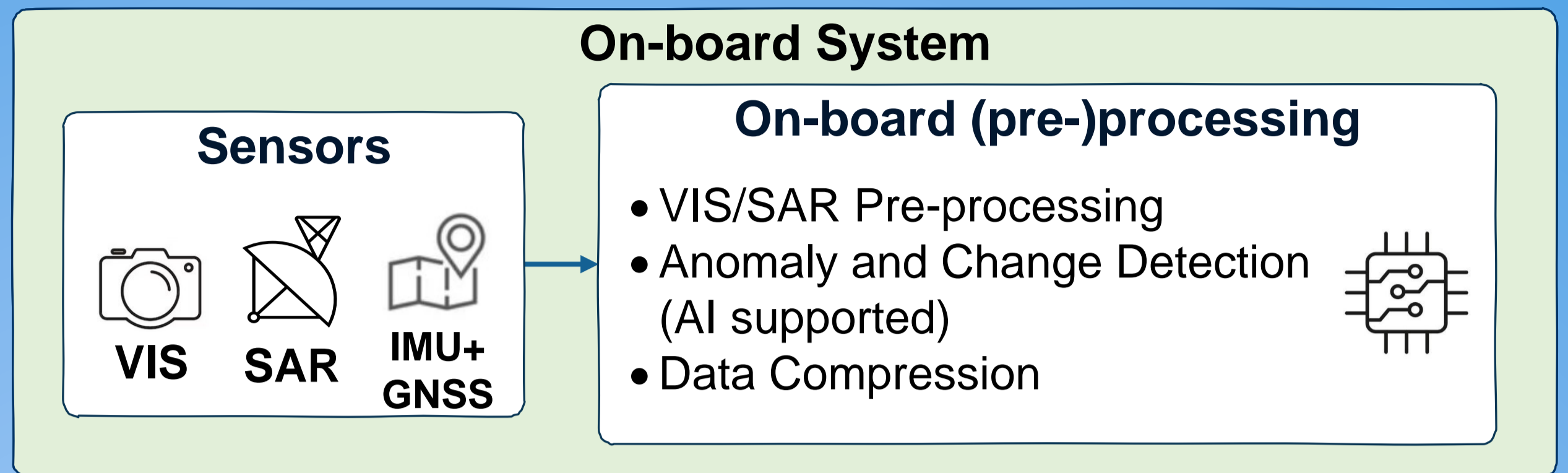
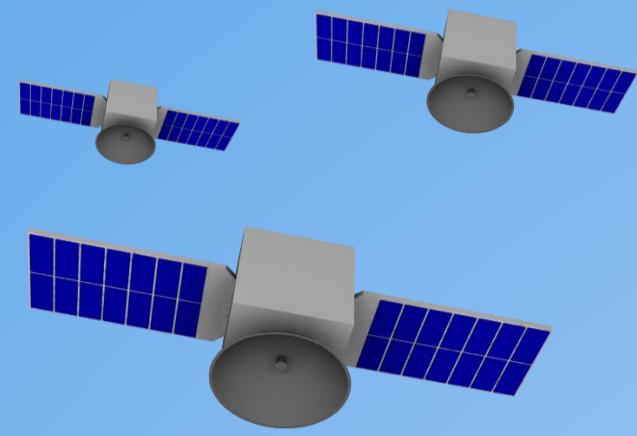
Instantaneous Infrastructure Monitoring by Earth Observation

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Constellation of small satellites in low earth orbit for sufficient global coverage to achieve short revisit times of the areas to be monitored



On-board processing for significantly reducing the amount of data to be transmitted to earth

Critical infrastructures such as transport, energy and water are vital to society. Climate change is increasingly leading to severe storms that can damage these infrastructures, causing supply bottlenecks and problems for public safety. Continuous and large-scale monitoring of these infrastructures is therefore crucial.

The IIMEO project is developing a suitable end-to-end solution for fast and accurate monitoring, based on a constellation of small satellites in low Earth orbit (LEO) and AI-supported on-board processing of SAR and camera data.

The monitoring of railway tracks and the detection of disruptions on these tracks serves as a pilot use case to demonstrate the feasibility of the solution.

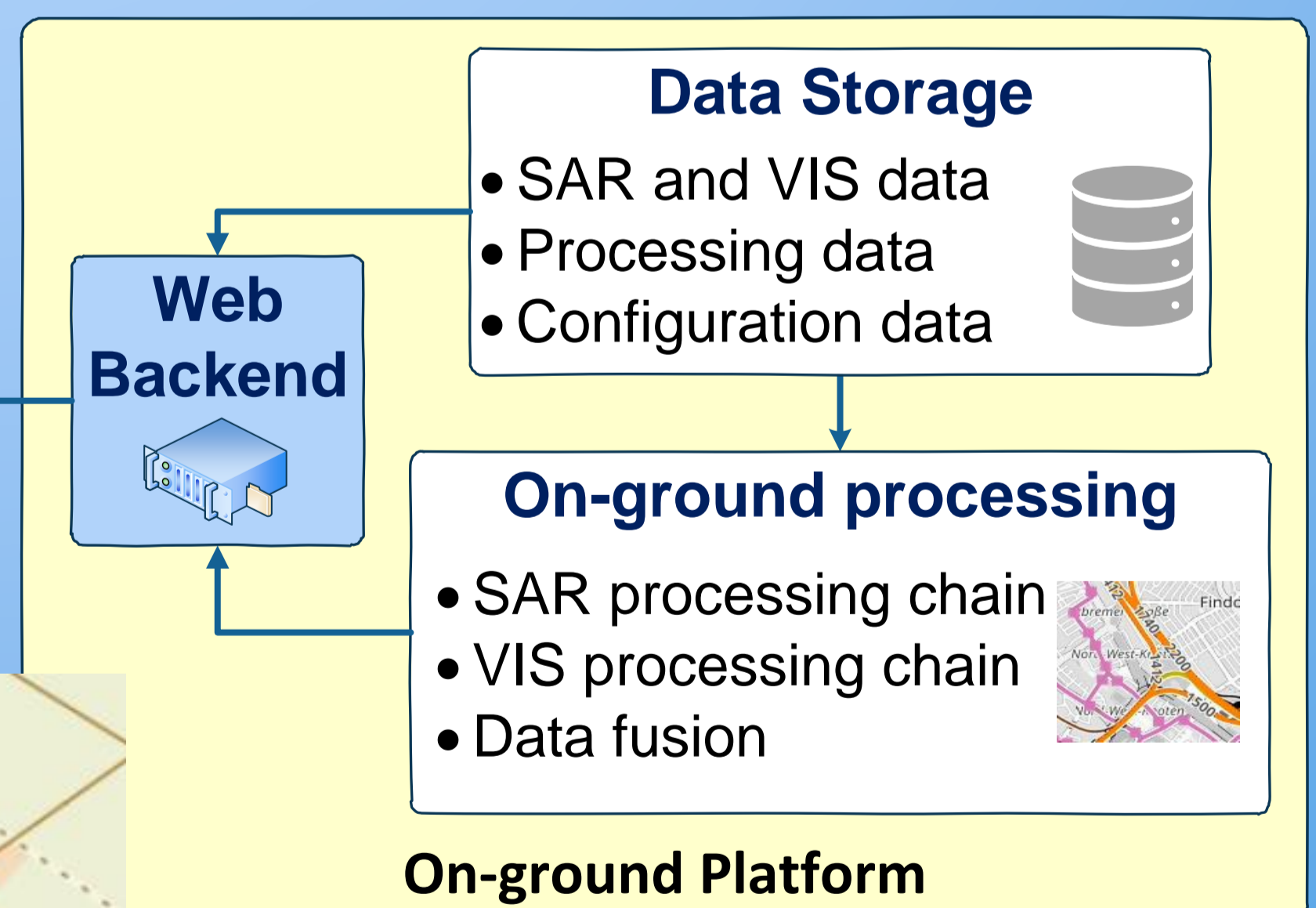
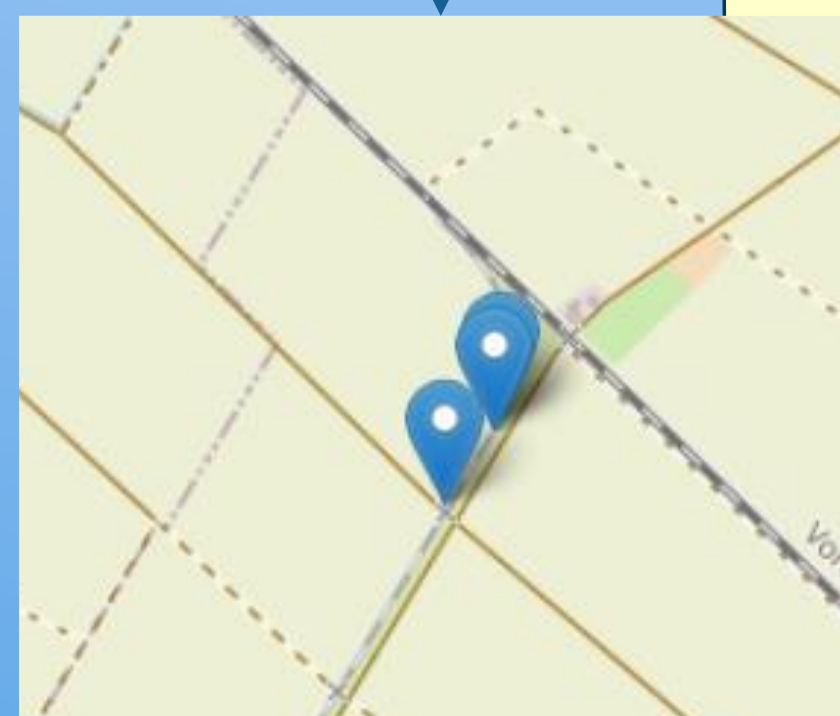
The feasibility of the concept will be demonstrated by a flight campaign in 2025.

On-Demand or regular monitoring of infrastructures

Commanding of monitoring tasks, Transmission of monitoring results



Infrastructure damages caused by severe weather events



Final processing and presentation of results to the user, e.g. positions of detected damages



<https://www.iimeo.eu>

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