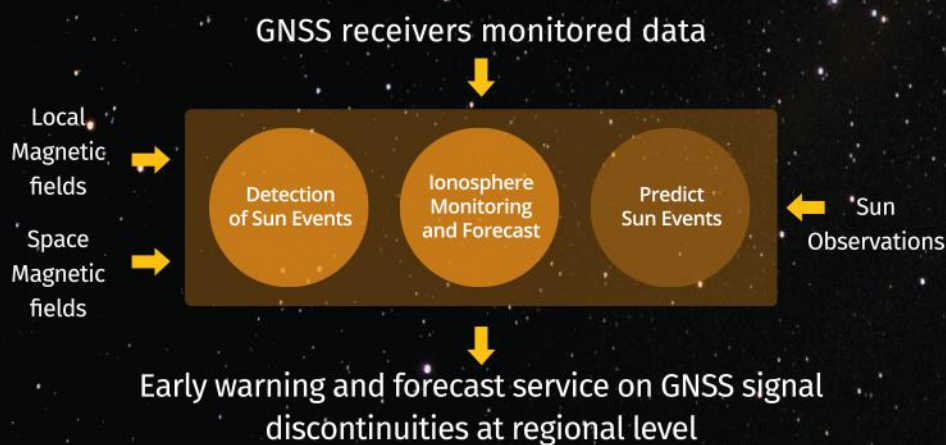


SWAIR

SPACE WEATHER IMPACT ON GNSS SERVICE FOR AIR NAVIGATION

Business opportunity

Space weather resulting from solar activity can perturb ionosphere and degrade GNSS signals. Air Navigation will need a service to support operational & safety decisions, in particular following the emergent usage of LPV procedures (GNSS based landing) in Europe.



Targeted services and applications

Provide early warning and forecast space weather services at regional level, specialized for Air Navigation using available technology. Implement an operational pilot with NAV Portugal.

Data analysis and correlation

- 1 Solar Observations:** Flares and CMEs detection to forecast Solar Energetic Particle events.
- 2 Geomagnetic Data:** Continuous monitoring of magnetic data using local magnetometers to correlate with other sources of information.
- 3 Ionosphere Monitoring:** Acquisition of GNSS data using local receivers to assess signal discontinuities or degradation caused by Sun-Earth interactions.

