

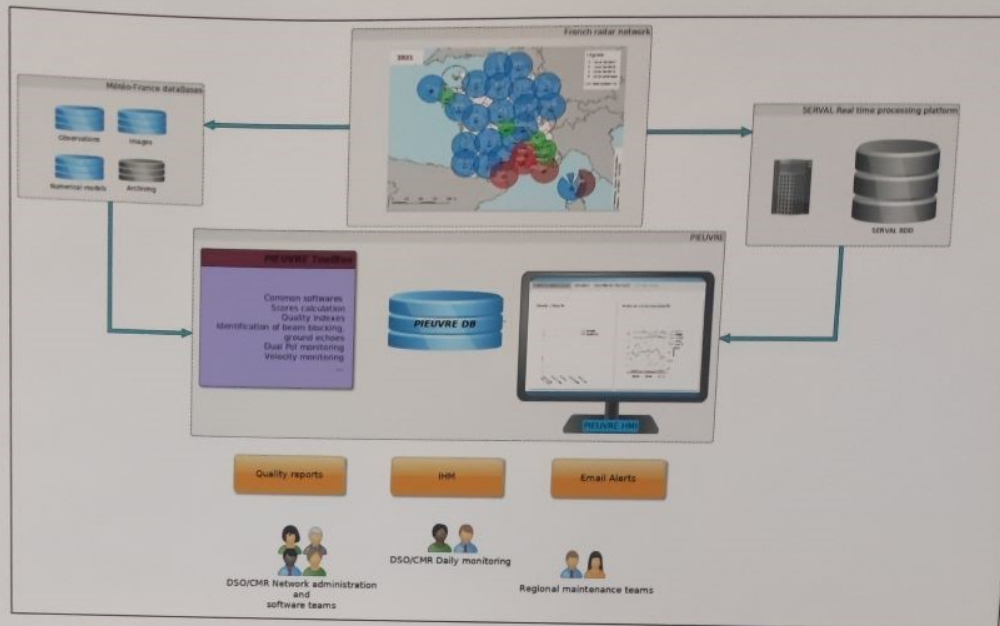
# PIEVURE

## Monitoring the french radar network and the quality of the final products

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### PIEVURE : A work in progress !

- PostgreSQL database containing a long term history of monitoring parameters : radar operating conditions, quality indicators, statistical scores...
- Modernized toolbox , mainly developed using Python and C++ libraries, producing :
  - ➔ metadata for real-time data processing,
  - ➔ scores and quality indices
  - ➔ hourly, daily, monthly... monitorings
- HMI ( Network / javascript / Django )
  - ➔ linked to the database
  - ➔ interactive graphic plots
  - ➔ database administration ...



### Monitoring the network

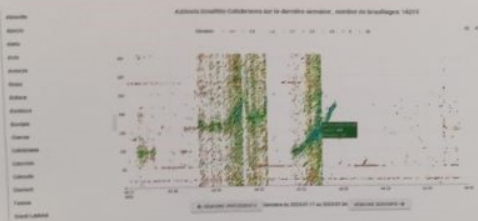
- Interferences detection
- Radial velocity monitoring
- Dual Polarimetry monitoring
- Solar monitoring

### Quality indices and scores

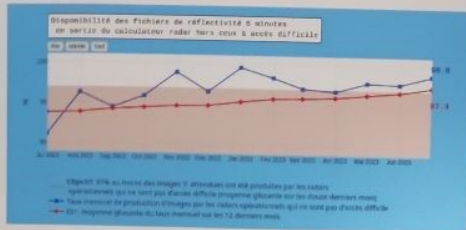
- Raw data production rate
- Maintenance response time
- Frequency of scheduled visits
- Percentage of receiver calibrations ...
- Accuracy, Bias, Probability Of Detection, False Alarm Rate...

### Metadata production for corrections by real time process SERVAL

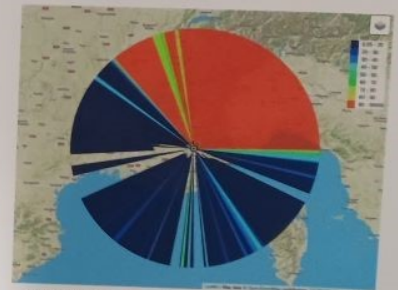
- Ground clutter identification
- Beam blockage map
- Wind turbine detection



Interference detection based on the correlation between consecutive rays



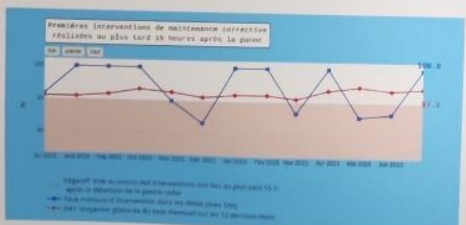
Availability rate of raw data



Beam blockage map for Maurel, lowest elevation



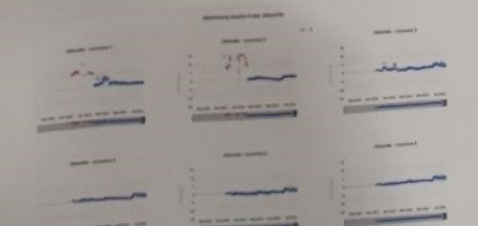
Solar monitoring : check the antenna pointing



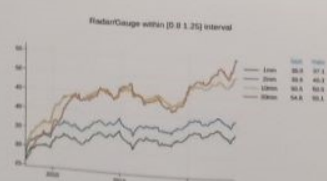
Maintenance response time



Wind turbine identification for Arcis, lowest elevation



Monitoring of TR tube health : averaged ZDR among 1km rings



Rain Gauge comparison , percent correct



Ground clutter identification for Aléria , lowest elevation