

Machine Learning API for Earth Observation Data Cubes

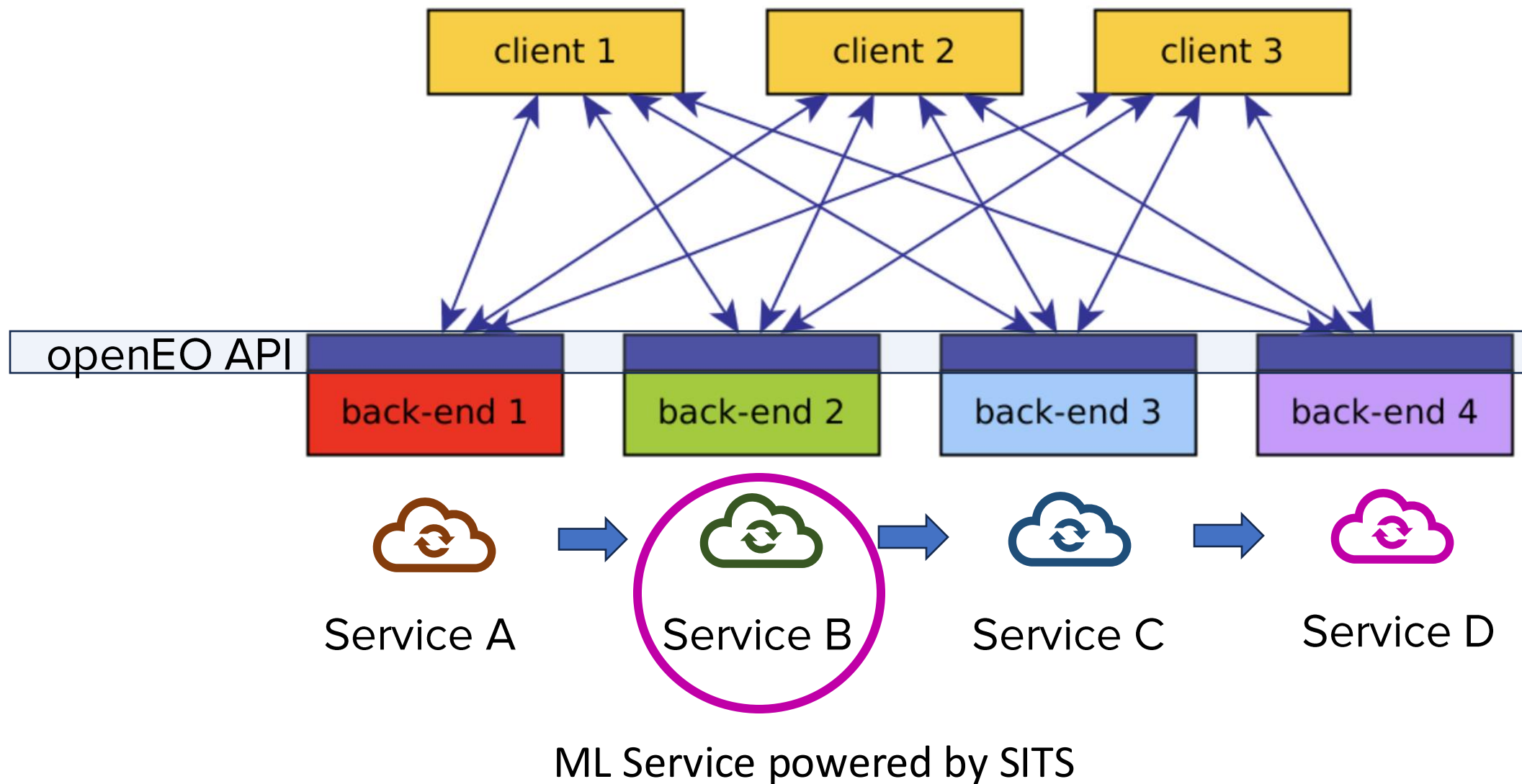


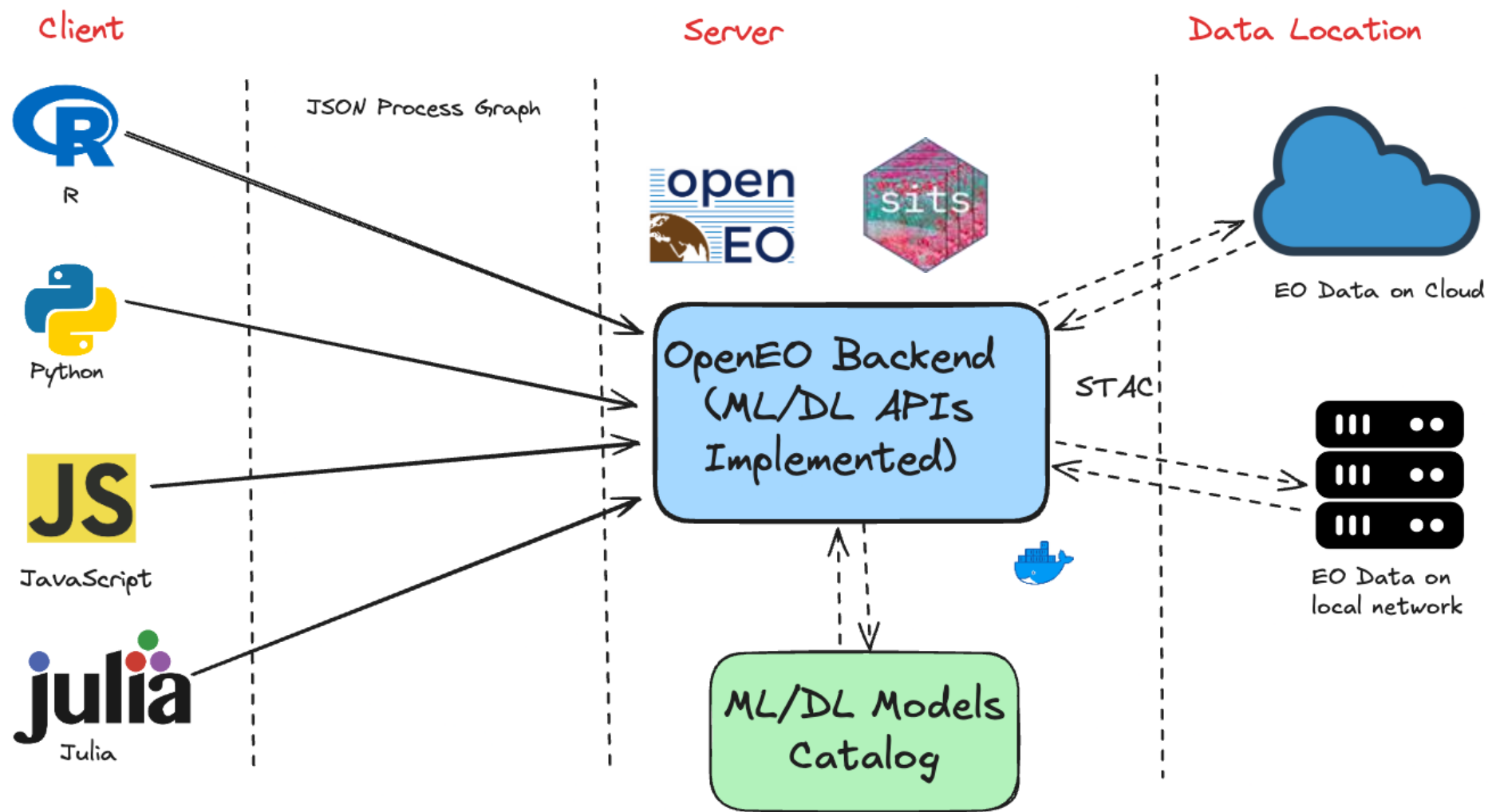
**OPEN EARTH
MONITOR**



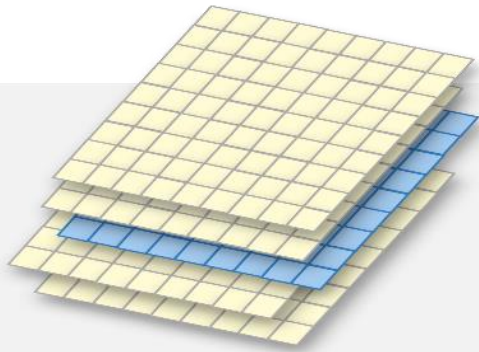
Brian Pondi - University of Münster
Rolf Simoes - OpenGeoHub Foundation

openEO

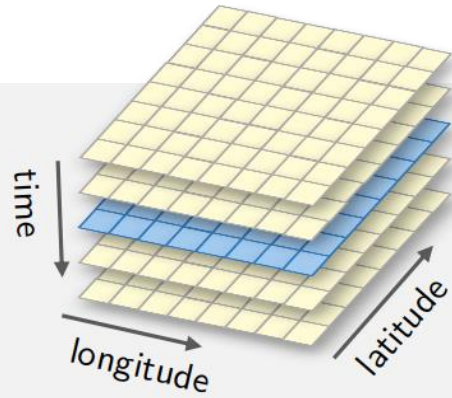




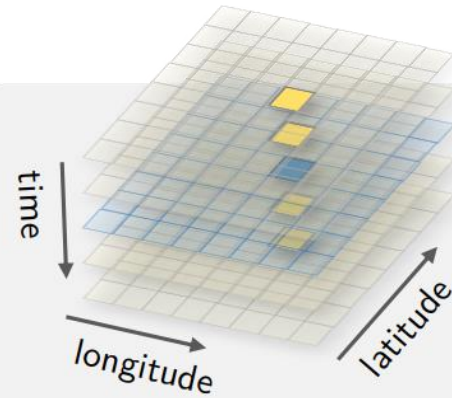
Data cubes



EO image collection



EO data cube



Time series selection

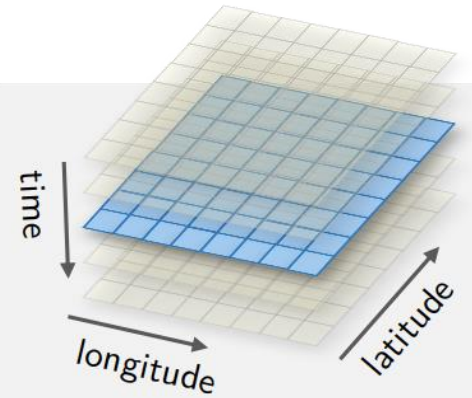
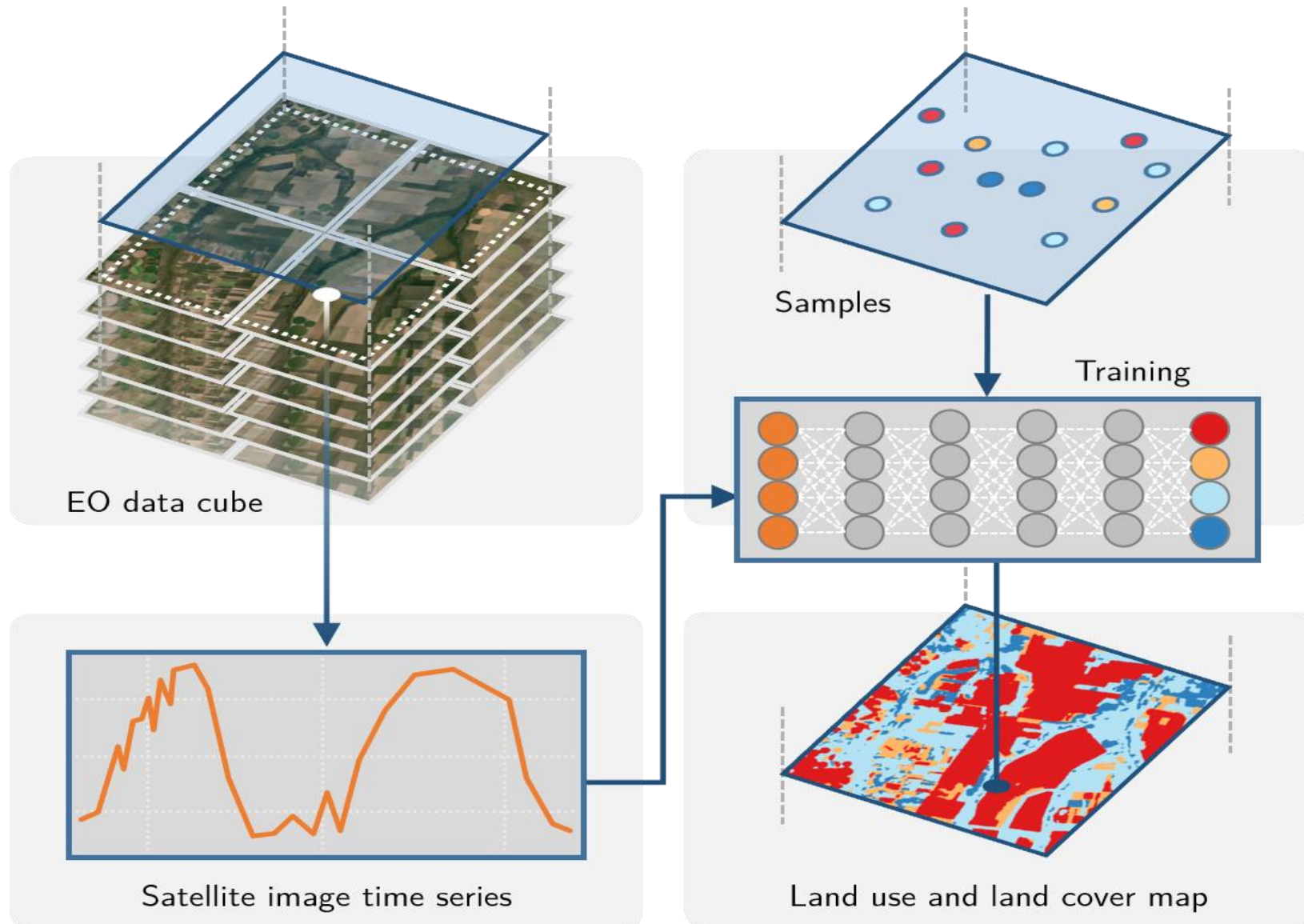


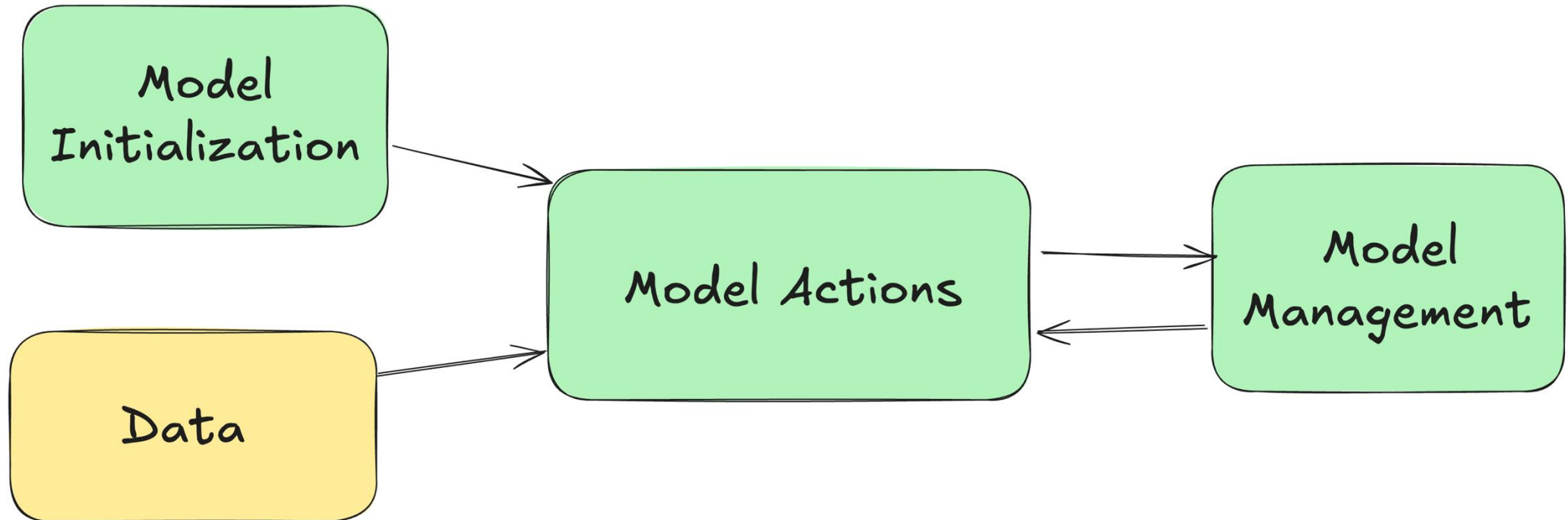
Image selection



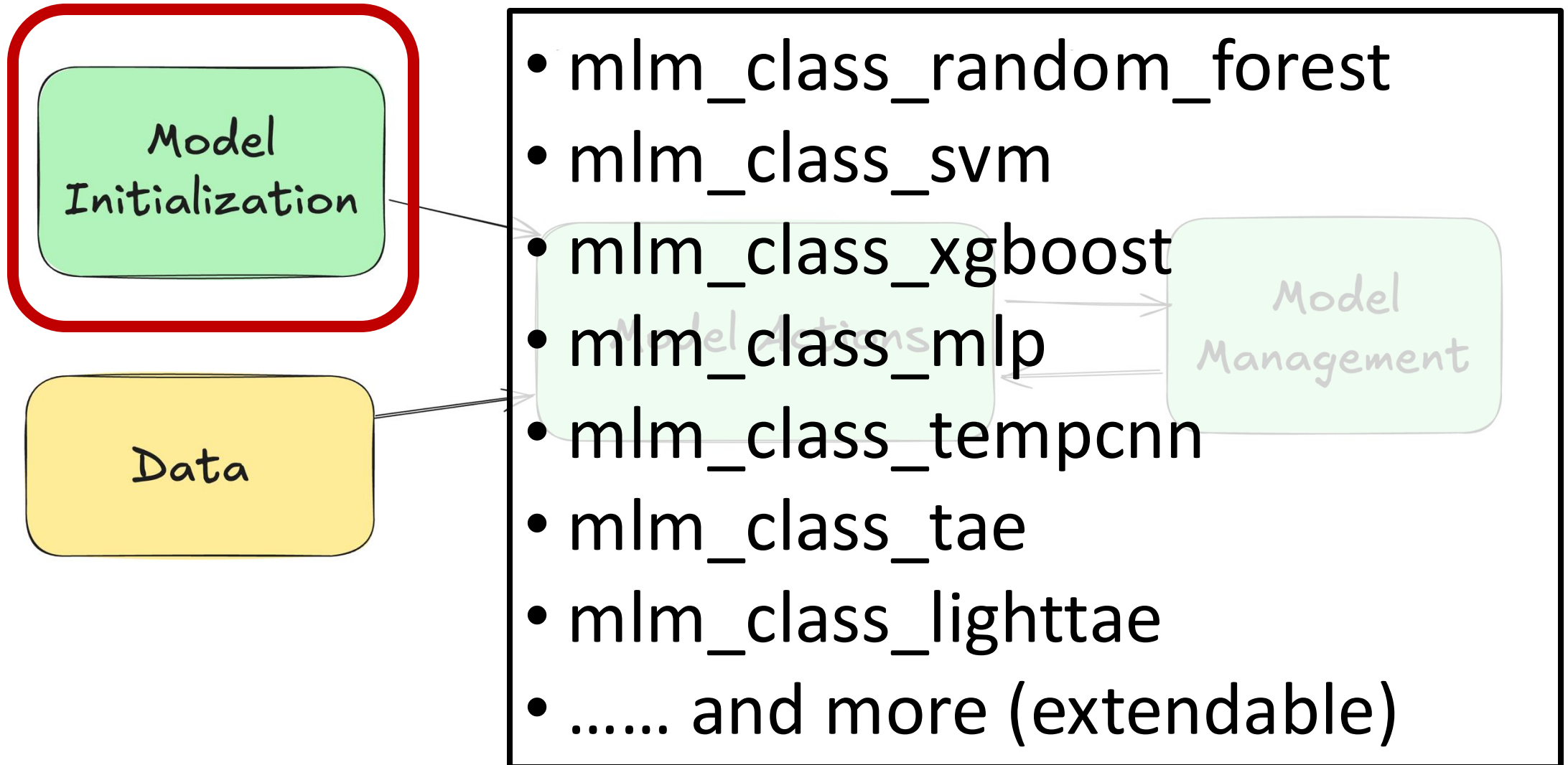
SITS: Big EO data analytics



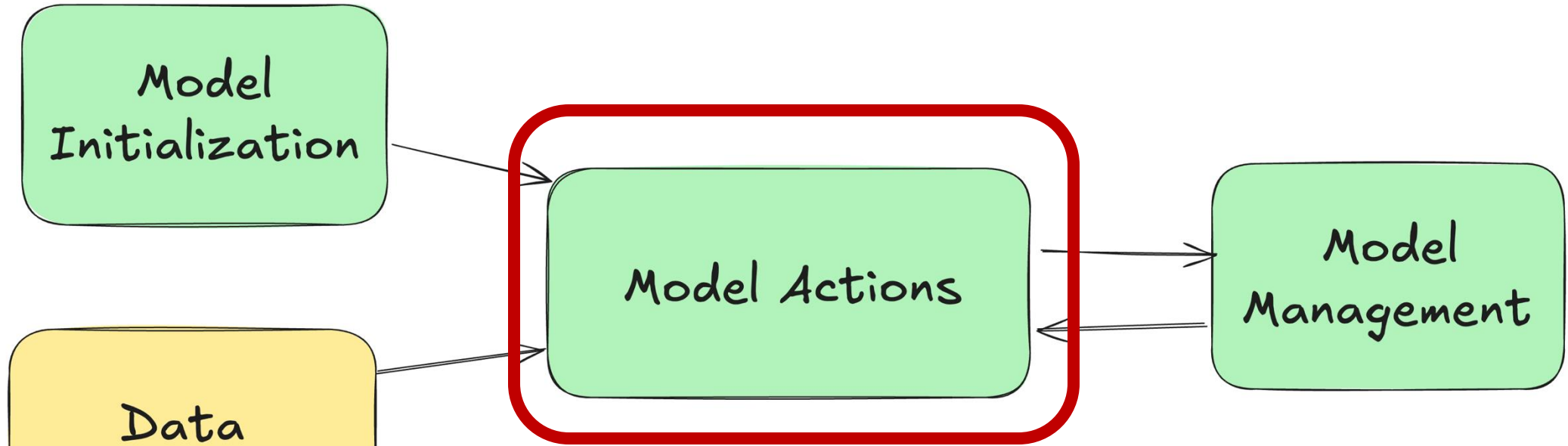
openEO ML API Components



openEO ML API Components

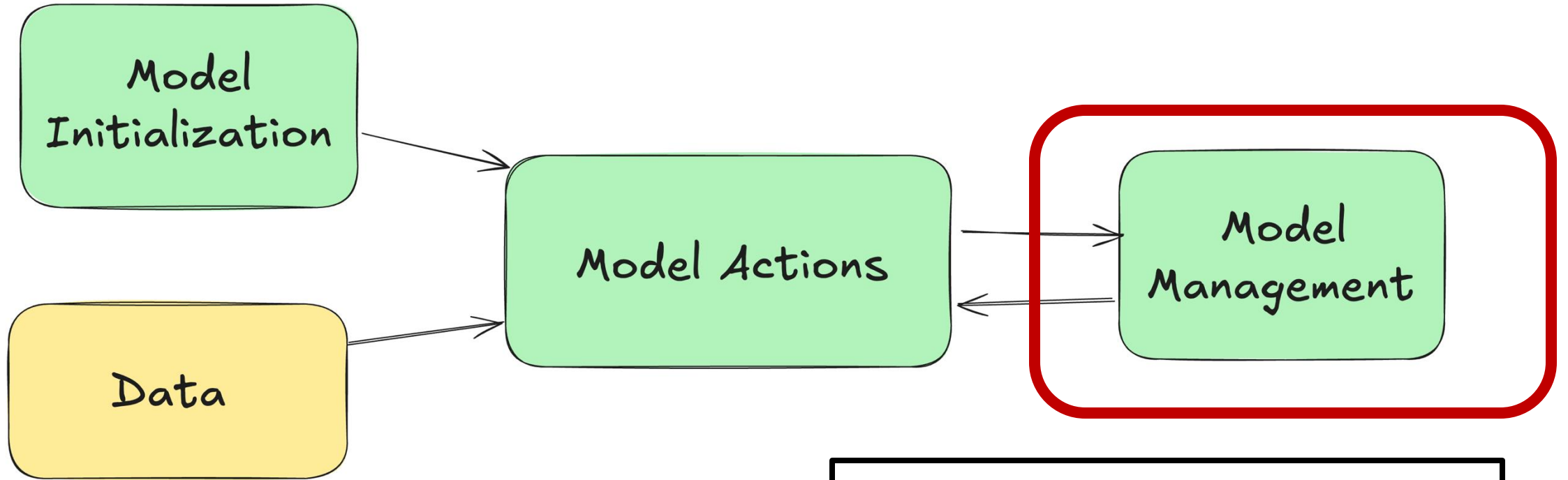


openEO ML API Components



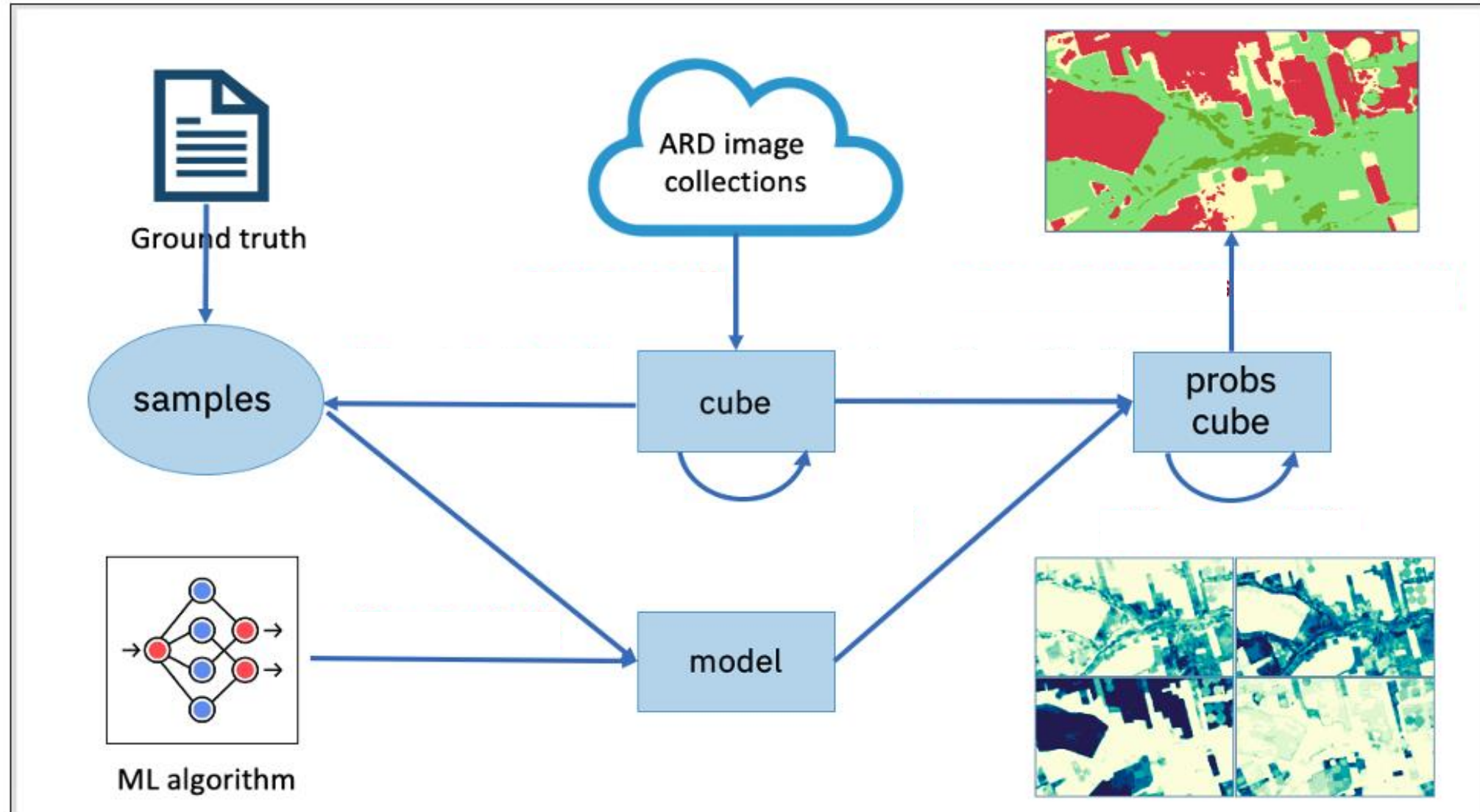
- `ml_fit`
- `ml_predict`
- `ml_predict_probabilities`
- `ml_uncertainty_class`
- `ml_smooth_class`

openEO ML API Components



- `save_ml_model`
- `load_ml_model`

openEO ML API Workflow



CODE DEMO

DURING Q & A

Conclusion

New **ML Capabilities** in the **openEO** Ecosystem

OpenEO users can gain the power of **ML** and **SITS**-based analytics with minimal effort

openEO-craft is a fast prototyping open-source package to create openEO services in R



**OPEN EARTH
MONITOR**

CONTACT US



ifgi
Institut für Geoinformatik
Universität Münster



OpenGeoHUB
Connect • Create • Share • Repeat

Brian Pondi: brian.pondi@uni-muenster.de

Rolf Simoes: rolf.simoes@opengeohub.org

OpenEO-craft : <https://github.com/Open-Earth-Monitor/openeocraft>

API Specs POC: <https://github.com/PondiB/openeo-processes>