

## Cloud Services for Astrophysics

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The H2020 NEANIAS project [1] is implementing thematic services in underwater, atmospheric and space sciences to be delivered on the European Open Science Cloud. These interdisciplinary effort has resulted in three set of services for the Astrophysics and Planetary communities [2].



Data management and visualization adopting FAIR (Findable, Accessible, Interoperable, Reusable) principles.

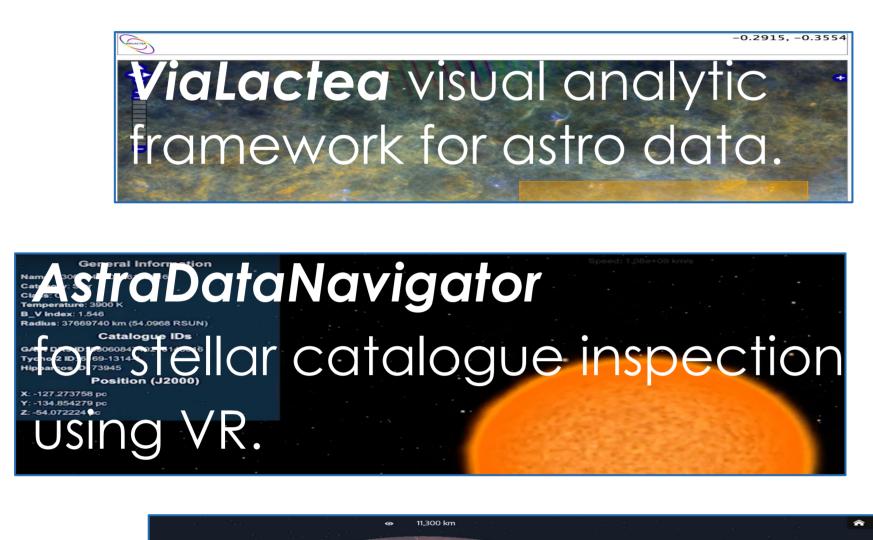


Makes *high quality images* maps and assembles those images into custom mosaics (mosaicking)

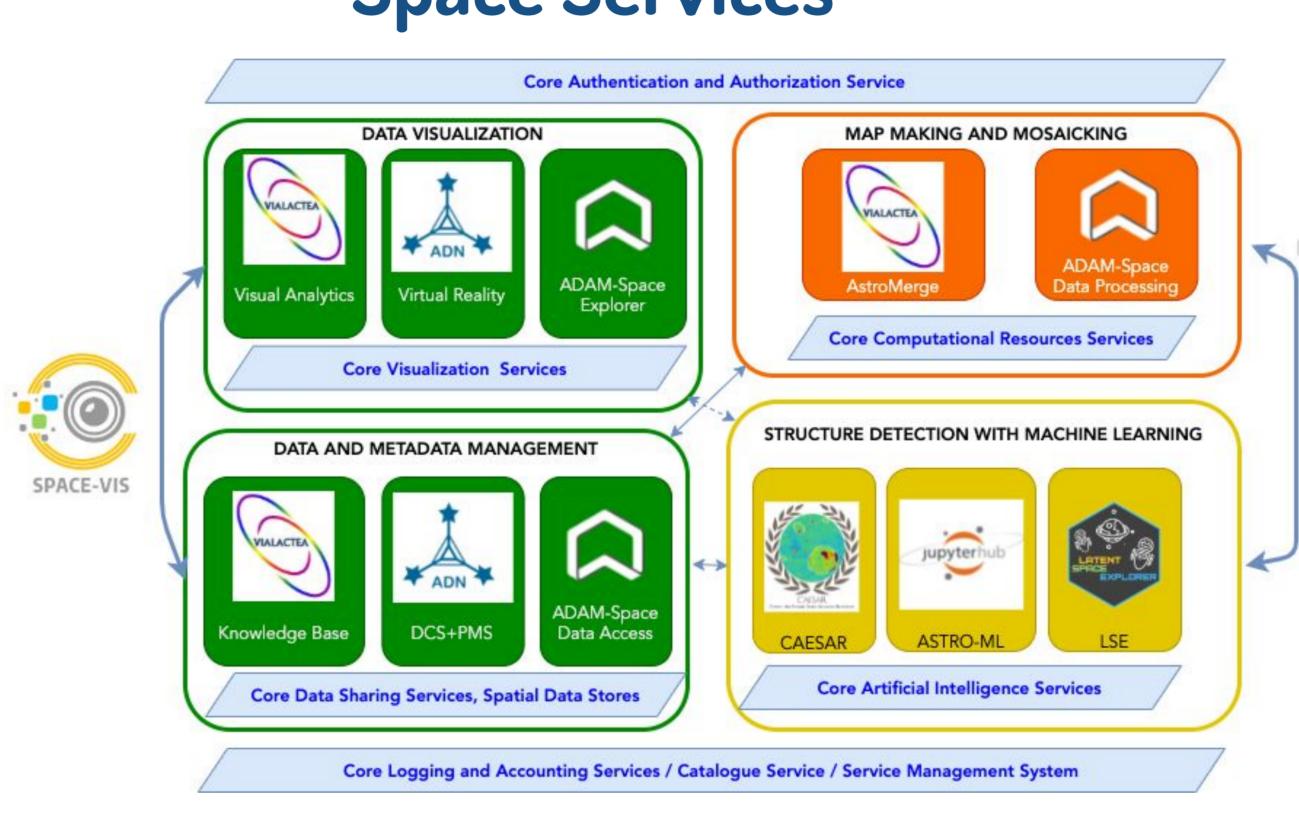


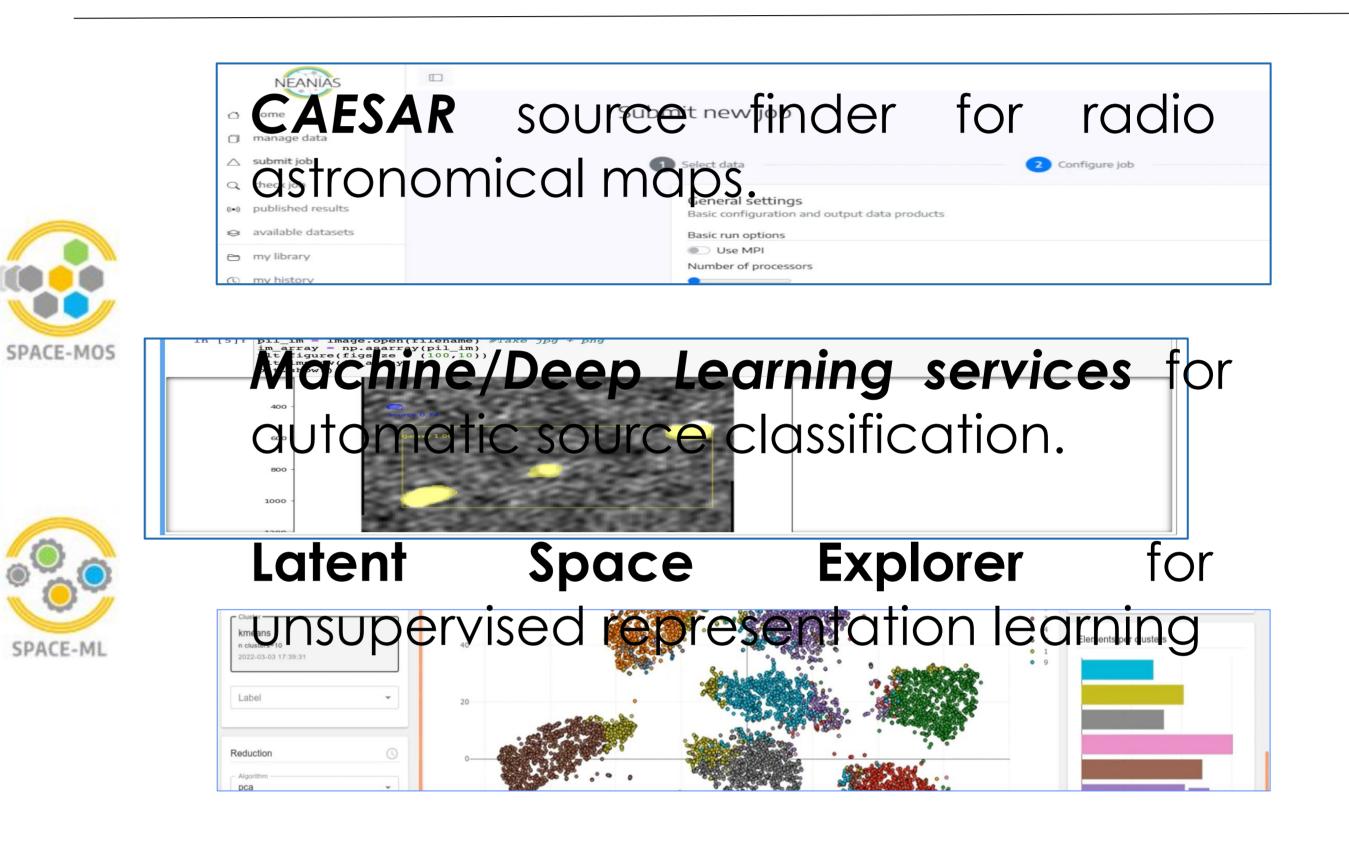
Performs *pattern* and *structure detection* in astronomical surveys as well as in planetary surface maps









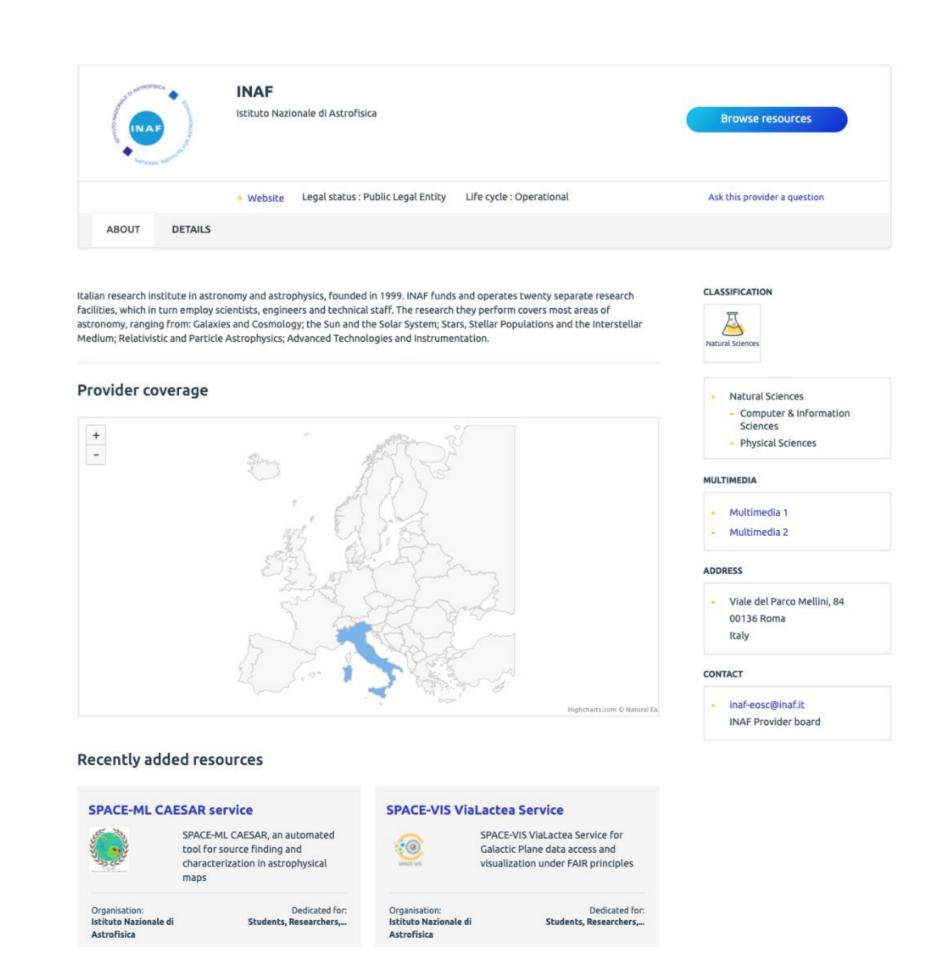


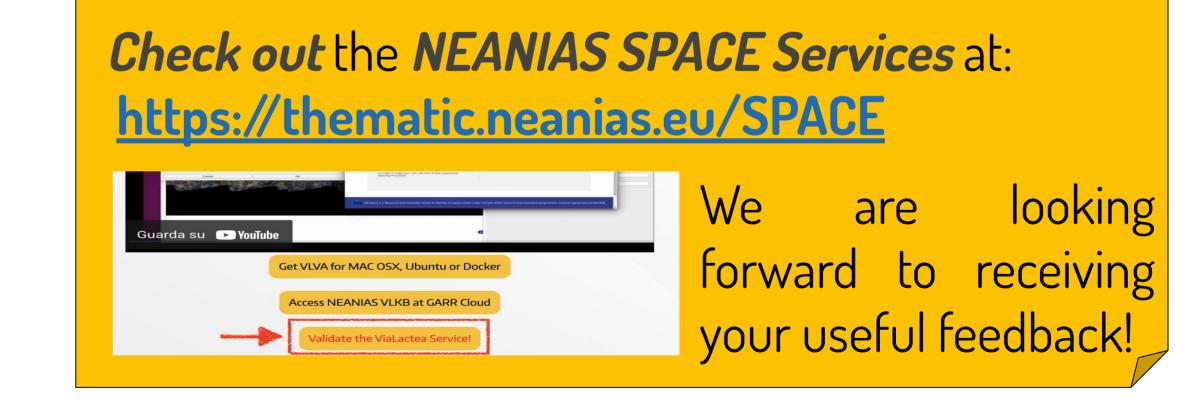
NEANIAS services [3] are built on top of TRL6 software solutions and evolved towards TRL8. They are integrated with core services to be operational in EOSC such as Authentication and Authorization, Logging, Accounting and Monitoring. Furthermore are they integrated with artificial intelligence and visualization core services to empower further analysis of their products. The latest release is running in production environment deployed into the NEANIAS infrastructure

(at the GARR and MEEO clouds) and is available at the NEANIAS Service Catalogue [4].

## EOSC Onboarding

ViaLactea and CAESAR services, provided by the Istituto Nazionale di Astrofisica (INAF), have been published in the EOSC portal [5]. For the **EOSC** onboarding process it was firstly to identify the Representative of INAF as new EOSC **Provider** (see Figure) starting from information and guidelines collected within the NEANIAS Service Catalogue core service.





For onboarding the services as new EOSC Resources we finalized the integration with the NEANIAS Service Management System, that is also required for the users to request access to the service and assigning proper authorization and we provided the needed legal information regarding the "Terms of Use" and "Privacy Policy".

## Useful links

[1] NEANIAS Project [<u>link</u>]

[2] NEANIAS Space thematic portal [link]

[5] EOSC Portal [link] [3] NEANIAS Services Documentation [link]

