

WP3 – OBELICS

Observatory **E**-environments **L**inked by common **C**hallenges

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ASTERICS KICK-OFF MEETING

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OBELICS in a nutshell ...



- The ASTERICS core work package.
- Targeting common ESFRI-projects « Data Challenges ».
- Scopes:
 - Enable interoperability and software re-use for the data generation, integration and analysis of the ASTERICS ESFRI and pathfinder facilities.
 - Create an open innovation environment for establishing open standards and software libraries for multi-wavelength/multi-messenger data.
 - Develop common solutions, share prototypes, exchange experience for : streaming data processing, extremely large databases, advanced analysis algorithms, software and middleware frameworks for data management, data processing and data access.

OBELICS in a nutshell ...

- Strategy:
 - Cooperation with the ESFRI pathfinders and precursors.
 - Cooperation with major European data and computing centres/resource providers, e-infrastructures and Integrating Activity projects.
 - Cooperation with industry for innovation.
 - Open Science: training, workshops and dissemination (also toward other scientific communities).

- Expected impact:
 - Economies of scale and saving resources.
 - Contribute to the construction and operation research infrastructures identified in the ESFRI Roadmap.



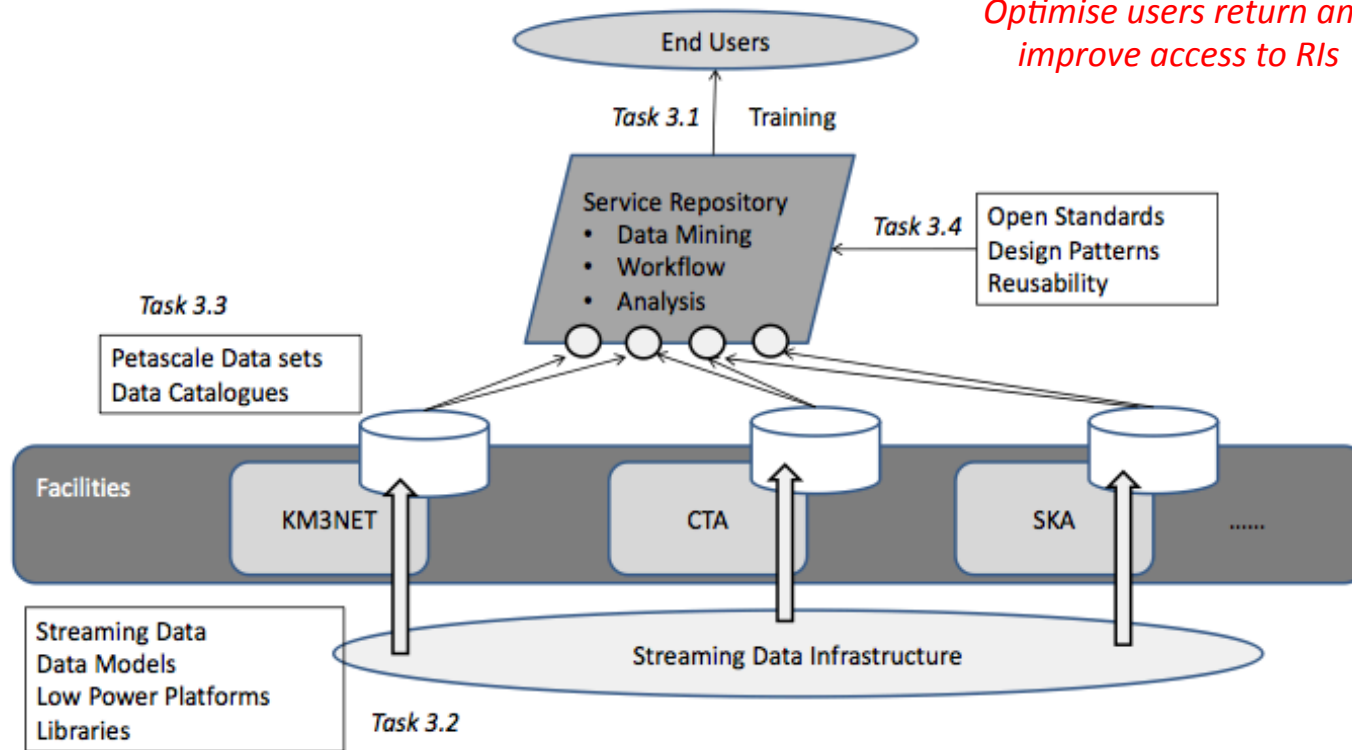
- Tasks:
 - 3.1 MAUD: MAnagement, User engagement and data Dissemination (LAPP)
 - ✓ Planning, reports, meetings, workshops, training.
 - ✓ Dissemination and communication, software libraries gateway.
 - ✓ E-infrastructure interface.
 - ✓ Industrial contracts.
 - 3.2 D-GEX: Data GEneration and information eXtraction (UCM +INAF)
 - ✓ Surveying real-time or close-to-detector data streaming frameworks.
 - ✓ Standards on data model and data format.
 - ✓ Prototype libraries handling secondary data streams.
 - ✓ Benchmarking low-power computer platforms.
 - 3.3 D-INT: Data systems INTegration (ASTRON + LAPP)
 - ✓ Scaling-up existing databases and storage architectures beyond the Peta-scale level for complex queries.
 - 3.4 D-ANA: Data ANALysis/interpretation (INAF + UCAM)
 - ✓ Open source software for data analysis.
 - ✓ Workflow architectures for Peta-scale datasets on distributed computing infrastructures.

Deliverables

Nr	Description	Task	Month
D3.1	Detailed WP3 Project plan	3.1	4
D3.2, 3.6, 3.10	Annual user engagement forum, workshops and training events	3.1	12, 24, 36
D3.3	Analysis Report on Standards and Libraries	3.2	12
D3.4, 3.17	Release of Software Libraries	3.4	12, 48
D3.5	Analysis Report on Resource Requirements	3.3	18
D3.7, 3.15	Processing Platform Technology Benchmark Report	3.2	24, 48
D3.8, 3.16	Database Technology Benchmark Report	3.3	24, 48
D3.9	Statistical Solvers Technology Benchmark Report	3.4	24
D3.11	Analysis Report on Frameworks and Architectures	3.2	36
D3.12	Repository of Services	3.3	36
D3.13	Repository of WMS Services	3.4	36
D3.14	Final Integral WP3 Report	3.1	48

OBELICS tasks and deliverables

Optimise users return and improve access to RIs



The focus on the RIs is fundamental.

Sharing deliverables and co-developing are the OBELICS added value

Upcoming steps ?

- **Ingredients:**

- ✓ Recruiting the personnel (including the OBELICS project manager, e.g. LAPP vacancies just issued).
- ✓ Partner engagements for Tasks leaderships/deliverables
- ✓ Detailed WP3 project plan definition.

- **Working tools:**

- ✓ Cooperative project management web application and software repositories.
- ✓ Dissemination Web page.
- ✓ Remote communication tools.
- ✓ Mailing lists

- **Meetings:**

- ✓ First f2f meeting > M4 (WP3 project plan defined).
- ✓ Possibility of co-location with other meetings.
- ✓ More ideas/exchanges during the parallel session.

OBELICS acknowledgements



- Thanks for the fruitful cooperation in preparing together the OBELICS proposal and looking forward to cooperating further during the project:
 - ❖ Marco de Vos, Paul Alexander, Fabio Pasian, Yannick Mellier et al.
- The leadership of tasks is shared between CNRS-LAPP, ASTRON, UCAM, INAF and UCM.
- All the ESFRI facilities (CTA, SKA, KM3NeT), and other major international projects or pathfinders, namely EUCLID, LSST, VIRGO/EGO, LOFAR, e-VLBI, HESS, MAGIC and ANTARES take part in all tasks and share responsibilities for task deliverables.
- The E-ELT (ESO) will be involved in particular in the development of open standards and common software libraries.