



Cross-cutting needs & actions - tapping into H2020 with ASTERICS

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What is ASTERICS ?

- Astronomy ESFRI Research Infrastructure Cluster (ASTERICS).
- 22 partners funded by EC H2020 at 15M€ for 4 years.
- Topic: Implementation of cross-cutting solutions for clusters of ESFRI research infrastructures.
- Focus of ASTERICS: SKA, CTA, KM3NeT but with close links to E-ELT and EGO.
- ASTERICS represents a major collaboration Astronomy/Astrophysics/Astro-particle Physics.

ASTERICS kick-off meeting



ASTERICS kick-off meeting



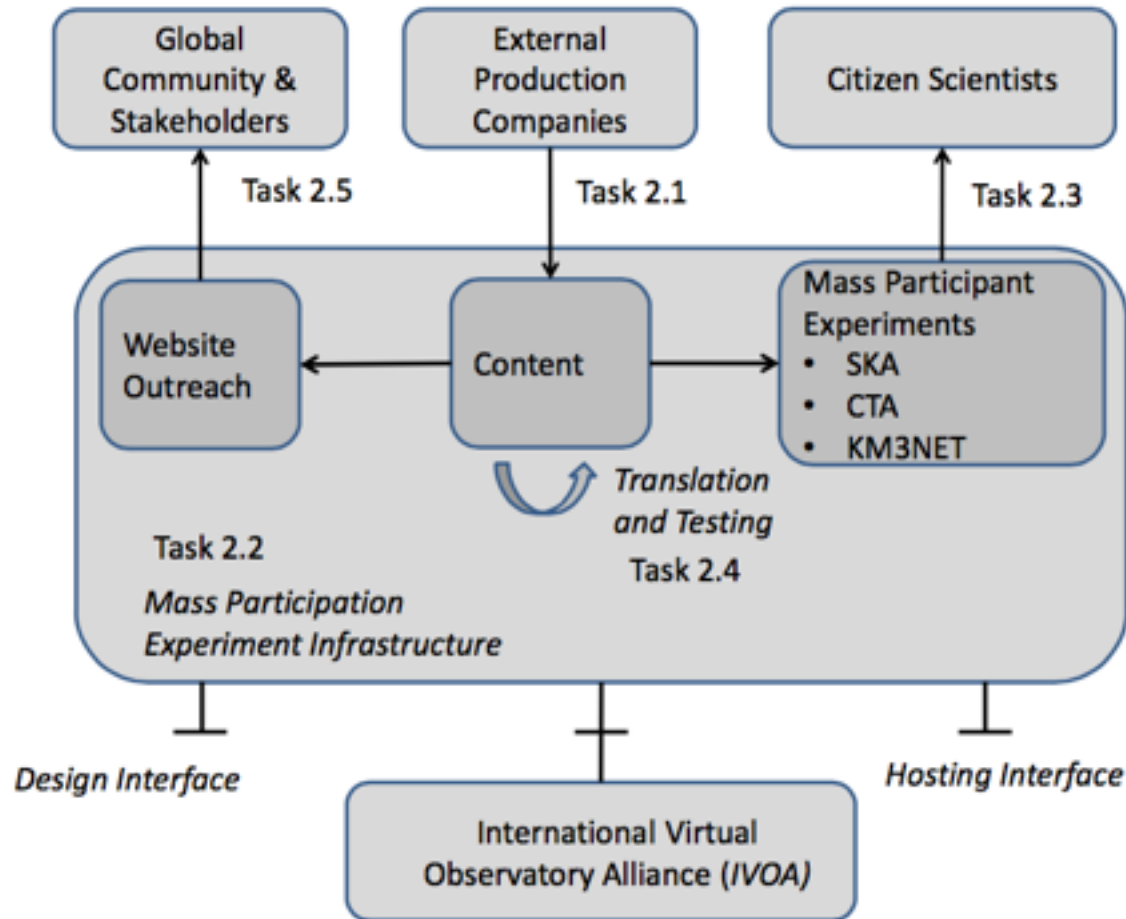


ASTERICS Programme

- ASTRONET identified some key common challenges for Astronomy:
 - Public engagement ✓
 - Virtual Observatory (VO) ✓
 - Big Astronomical Data (BAD) ✓
- ASTERICS has also identified some common R&D h/w (& s/w) technology challenges.

- DECS (WP2) - Stephen Serjeant (OU):

ASTERICS WP2 – Dissemination, Engagement and Citizen Science



• OBELICS (WP3) - Giovanni Lamanna (CNRS-LAPP):



ASTERICS WP3: OBELICS (OBservatory E-environments Linked by common ChallengeS)

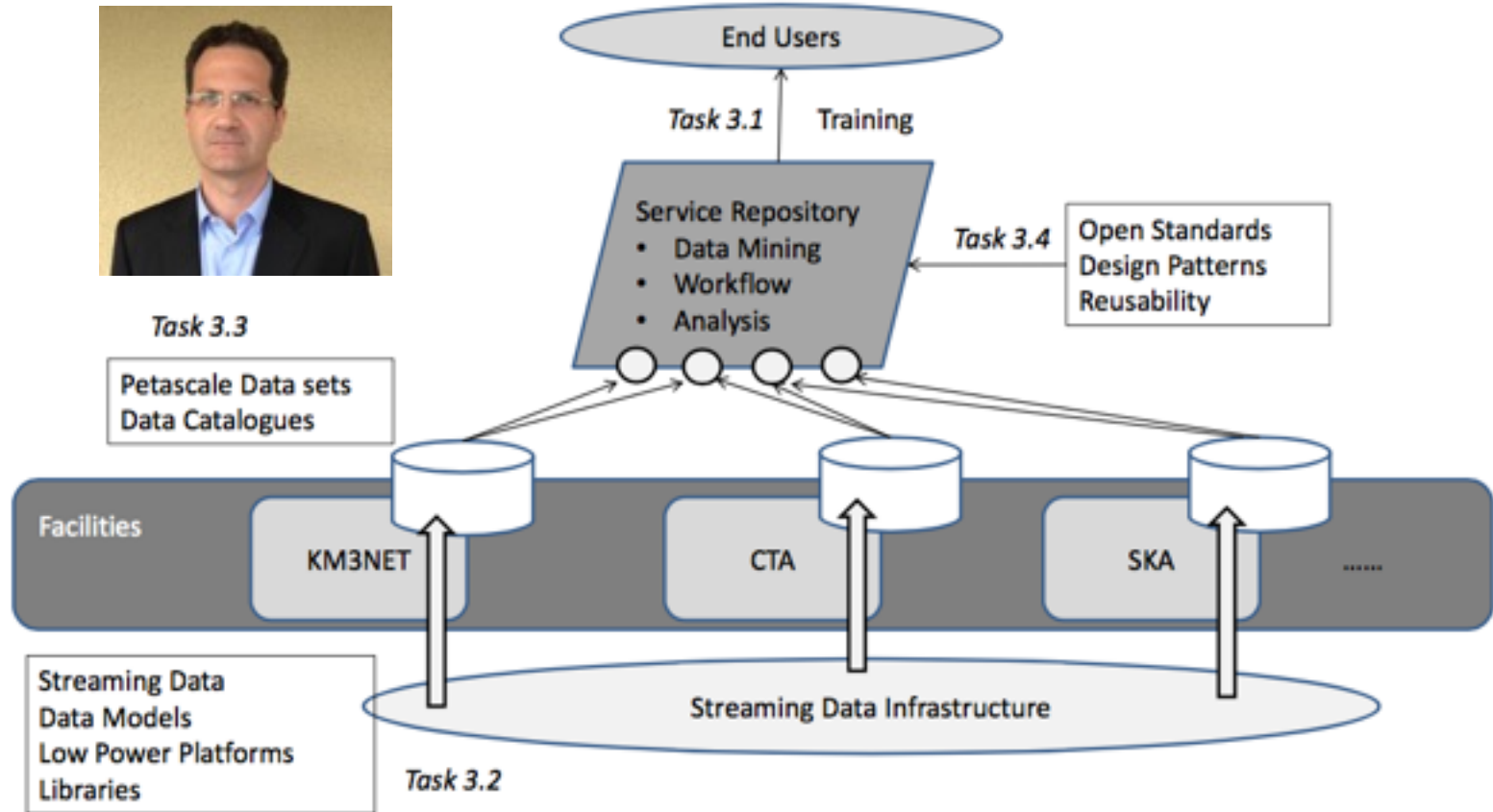
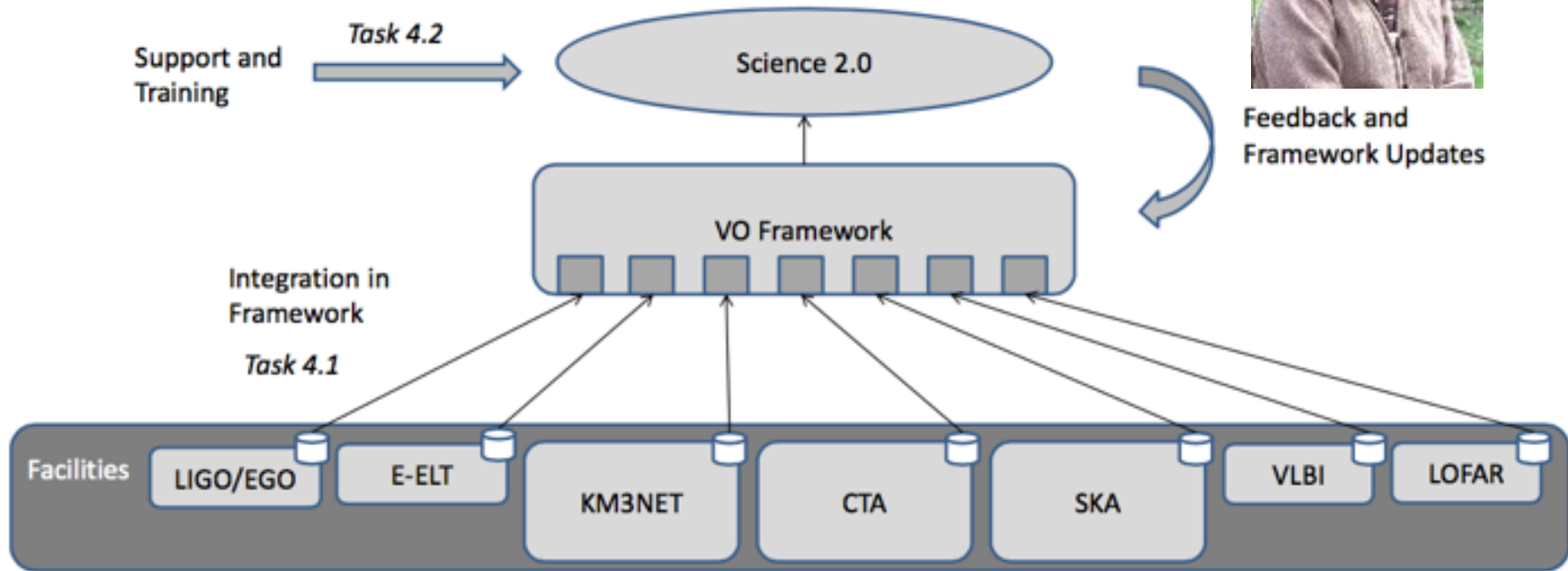


Figure 5: ASTERICS delivers a repository of services and Data Technology solutions for the ESFRI projects.

- DADI (WP4) - Francoise Genova (CNRS-OAS):

ASTERICS WP4: DADI (Data Access, Discovery and Interoperability)



Feedback and Framework Updates

Figure 6: The ESFRI projects integrated in the VO Framework offers users uniform access.

- CLEOPATRA (WP5) - A. Szomoru (JIV-ERIC):

ASTERICS WP5: CLEOPATRA: Connecting Locations of ESFRI Observatories and Partners in Astronomy for Timing and Real-time Alerts

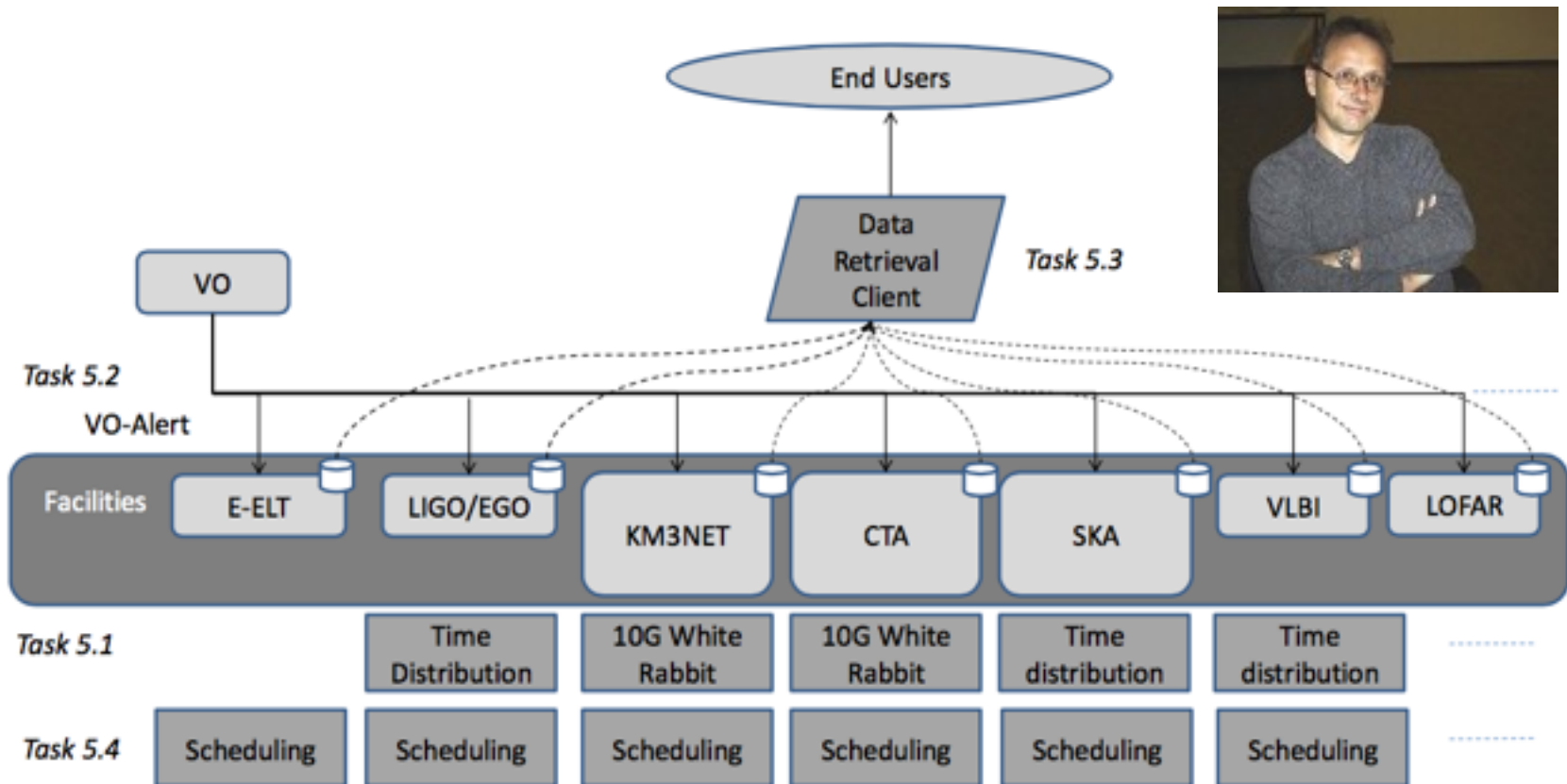


Figure 7: CLEOPATRA delivers solutions for shared challenges of ESFRI facilities.

- WP integration - All!

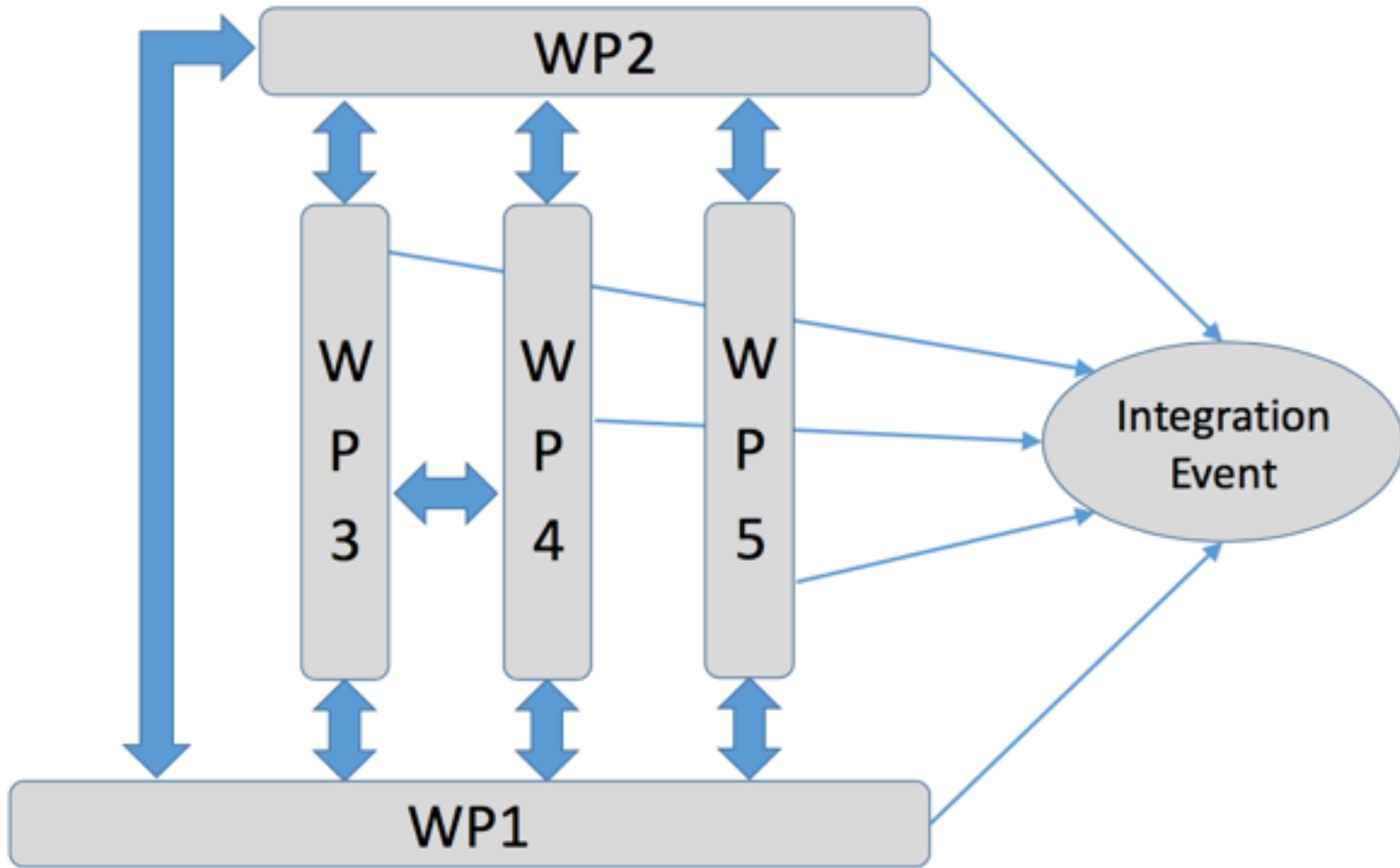


Figure 8: Graphical representation of the ASTERICS WP components.

Summary

- ASTERICS is up and running (1 May 2015).
- Programme closely modelled on ASTRONET priorities.
- The way we do astronomy is set to change dramatically - advanced data analytics & cognitive computing can help.
- The fusion between multi-wavelength & multi-messenger astronomy will be an important challenge for the next decade.