## **MULTI-MESSENGER CHALLENGES ADDRESSED BY ASTERICS**

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## **ASTERICS in general**

The ASTERICS project (Astronomy ESFRI and Research Infrastructure Cluster) aims to establish a single collaborative cluster of next generation ESFRI telescope facilities and other relevant research infrastructure initiatives in the area of astronomy, astrophysics and astroparticle physics. ASTERICS facilitates researchers in astronomy, astrophysics to work together on a large scale on mutual challenges.

## **ASTERICS** support for origin of GRB research

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**Bringing together scientists** from different messenger groups

DADI work package (WP)

- Developing (VO) tools together
- Schools, Trainings

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- 3rd ASTERICS DADI School, 21-23 Nov 2017, Madrid
  ESFRI Forum and training, Dec 2017, Trieste
  Technology Forum (VO
  - development), Spring 2018

**Bringing together** the **data** from the different messenger facilities

WPs DADI, OBELICS, DECS

- VO standards, IVOA, RDA
- Data handling, benchmarking
- Citizen Science Experiments, engaging with society at large

 OBELICS Workshop & training, 16-19 Oct 2017, Barcelona
Citizen Science Workshop, Spring 2018, Trieste (TBC)

ASTERICS has 26 partner

**Doing the timing right** in recording highly variable celestial events

Astronomy ESFRI & Research Infrastructure Cluster

## WP CLEOPATRA

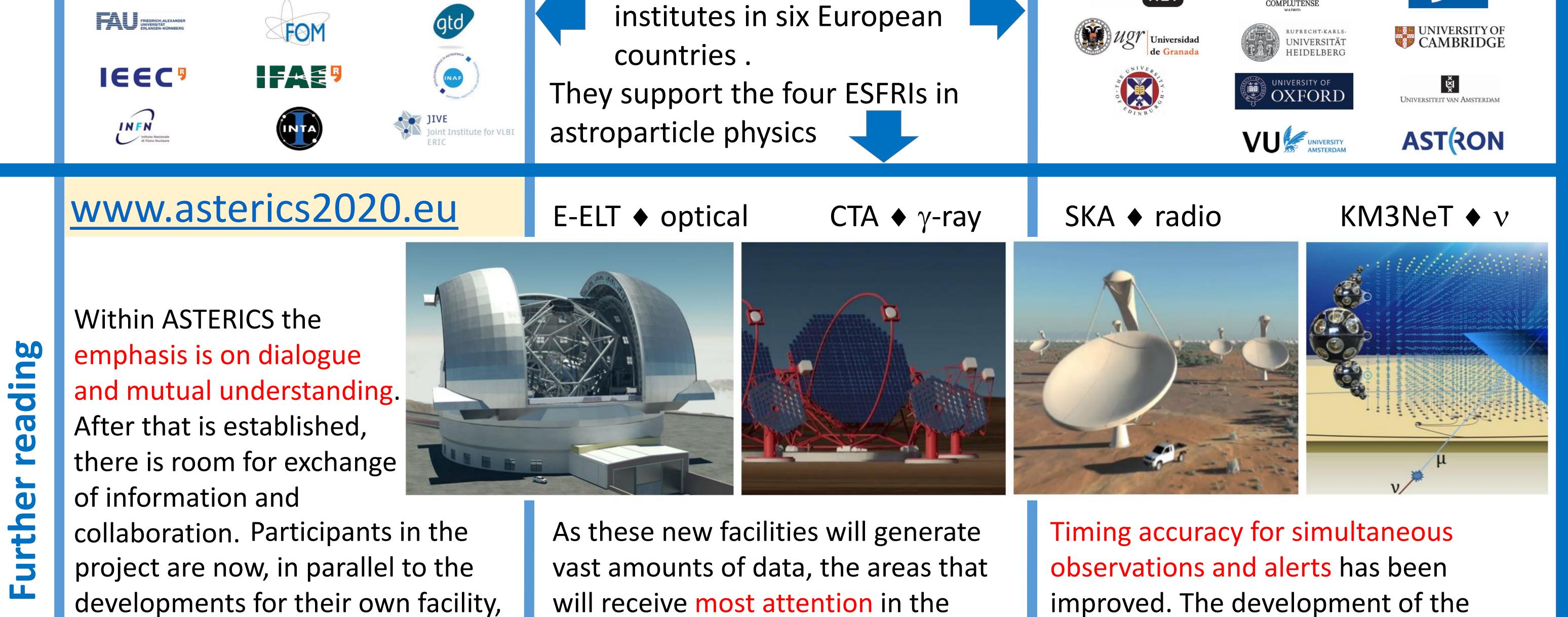
- Timing with White Rabbit protocol
- Alert protocols and mechanisms

workshop on Radio - γ : Transient
Alert Mechanisms,
26-28 Sept 2017, Amsterdam
www.asterics2020.eu/radio gamma-workshop

The Open Iniversity







more and more thinking about the possible implementation of their work in other facilities. This is something one cannot easily enforce and is a big achievement so early into the project. ASTERICS project are related to the many aspects of data handling (generation, transport, preservation, retrieval and analysis), as well as the interoperability between facilities, which is important for linked analysis, scheduling for simultaneous observations, and fast response. technology for enabling long-haul and many-element time and frequency distribution over fibre connections, for relaying alerts, and for streaming data goes far beyond the recent state of the art. ASTERICS has demonstrated a new and very precise dispersion delay measurement method. A working e-transfer prototype was delivered.



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