# ESFRIs & VO networking and discussing

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# Outline

- DADI Task 4.1
- ESFRI Forum & Training Events
  - Role & format
  - Outcomes
- Moving forward: EOSC integration
- Conclusions

# DADI Task 4.1

*"Support to astronomy ESFRI facilities, their pathfinders and other infrastructures of pan-European interest for implementation of their data in the VO framework."*

- Networking and training
  - *Annual Forum and Training Event*
- Support to implementation of ESFRI facilities data in the VO framework
  - Local training of technical and scientific staff
    - Help, registry, software, visits
- ESFRI requirements and feedback from all activities as an input to Task 4.3
  - Task 4.3 – "Updates of the VO framework from feedback and requirements".

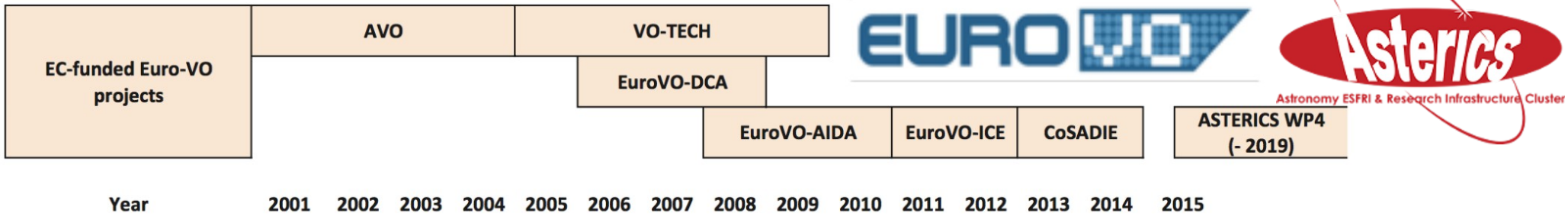
# Annual F&T Events

- Annual Forum and Training event to
  - Network
  - share lessons learnt
  - discuss requirements
  - provide training on how to implement data in the VO
- Flavouring
  - Years 1 and 3: '**ESFRI Forum and Training event**'
    - gathering ESFRI facilities staff and VO developers
  - Years 2 and 4: 'European Data Provider Forum and Training event'
    - open to other data providers but still focused on ESFRI projects

# Why ESFRI F&T?

- ESFRI Forums
  - Bring in new stakeholders
  - Discuss common issues
  - Familiarize with VO framework
    - Lower entry barrier

- Tech Forums
  - Long standing events
  - Technical progress
  - Hands on work




Genova et al. 2015

M. Allen – ESCAPE KoM, CEVO
F. Genova – ASTERICS Symposium

# ESFRI F&T Event Format

- ~2 days packed schedule
  - Introductory presentations of discussion topics
  - Lot of time to discuss and interact, talk-to-discussion time ratio
    - 50/50 (1st event) → ESFRI connecting to the VO world
    - 60/40 (2nd event) → more ESFRI report on VO integration (extra splinters not accounted for)
  - Splinter time available for parallel, dedicated topics
- 2nd Event provided a VO newcomers session in advance
  - European Data Provider F&T requirement outcome
  - useful to EST & EGO
  - precursor to other events later
- Participation (mostly) from all the DADI partners (to both events)
  - ~50/50 ESFRI vs. VO people
  - Good participation of IVOA TCG members

# ESFRI F&T Discussion Topics

2015 – preliminary networking event for ESFRI & VO
(DADI status, VO overview)
2017 – real requirements and report of VO integration in ESFRI
in view of project's end (FAIR approach)

## 2015

- Multidimensional data access
- ***Time domain*** data access
- Resource discovery/Registry
- Authentication&Authorization

## 2017

- ***Time domain*** data access
- Data modelling in discovery and representation
- Radio data interoperability
- Polarimetry and spectro-polarimetry
- Data provenance

*2015 – I ESFRI F&T Event*
*2017 – II ESFRI F&T Event*

# ESFRI F&T Outcome

- Multi-D interoperability brought to maturity
  - On feedback phase …
- Time Domain modelling and interoperability enhanced
  - Continuously progressing effort
- (Registry) Repository of resources concept disseminated
  - Now working on coverage metadata filtering
- Provenance brought to final stages of VO standardization
- AuthN & AuthZ topic awareness raised
  - Led to dedicated DADI/OBELICS f2f Meeting (Jan' 19)

# Moving further: EOSC integration

ASTERICS: **Astronomy ESFRI** and Research Infrastructure **Cluster**

ESCAPE: European Science **Cluster** of **Astronomy & Particle physics ESFRI** RI

- Larger community
  - VO-like interoperability seems shrinking...
- Cross-domain fore-view
  - Astronomy & Particle but Solar Physics community is also involved
- VO paradigm already used outside strict astronomy domain
  - now facing different data approaches
- EOSC → European "bound" cluster interoperation
  - but research domains need to work globally

# ...few points to bring home

- Importance of discussing Interoperability with ESFRI cluster
  - Interoperability → multi-messenger paradigm exploitation
    - Interoperability requires Open standards → Open Science
  - Open Science → EOSC requirements
  - Big Data → big risk: if not exploited to full potential
    - (Big Data != Massive Data) → computational constraints
  - User federation, role granting → keep data as open as possible, as close as necessary
  - VO → an “old” acronym for an evergreen “open” approach

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Thank you!