

# Le projet ASTERICS

Réunion ASOV, 24 mars 2015

# Le projet Astérics

- Appel d'offre Infrastructures « Cluster » ( = **ESFRI** « and other infrastructures of pan-European interest »), clos le 2 septembre 2014
- 15 M€
- Coordinateur Mike Garrett (Astron, NL)
- Début prévu: 1<sup>er</sup> mai 2015
- 5 WP

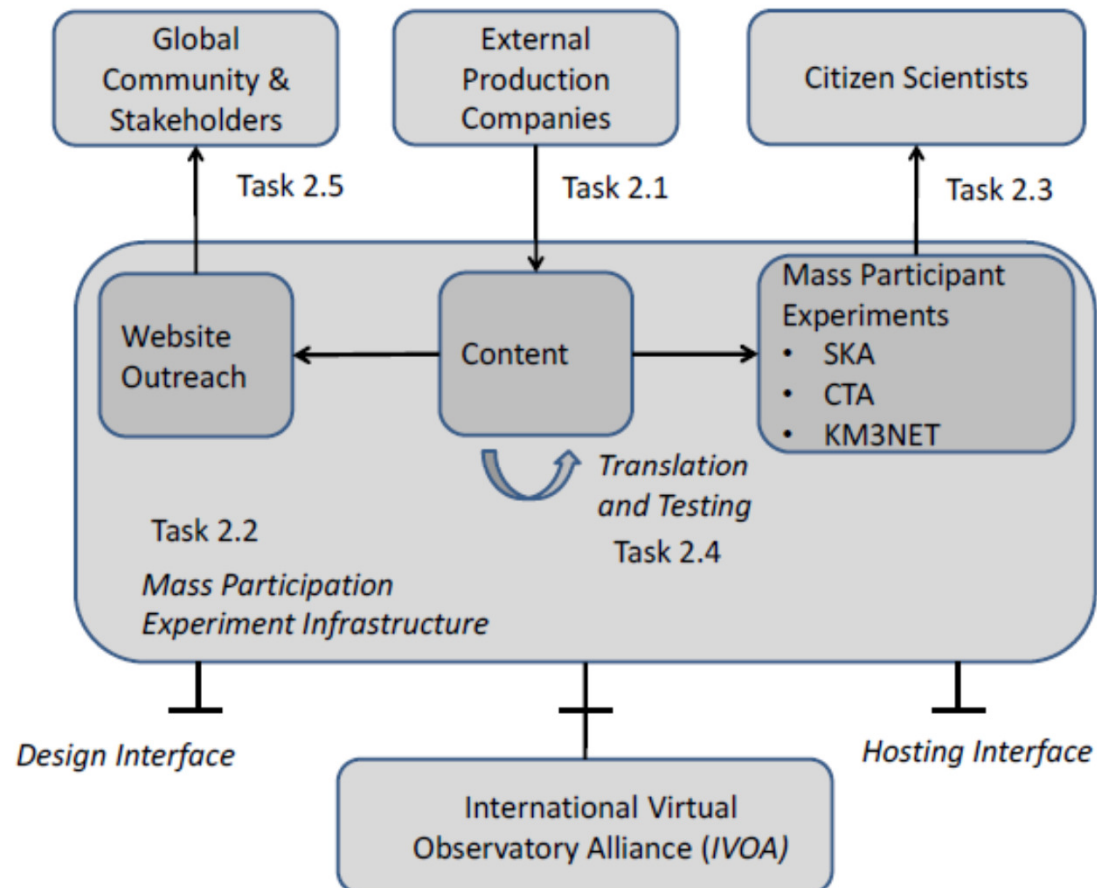
# ESFRI

- European Strategic Forum for Research Infrastructures
- Feuille de Route européenne 2006, 2008, 2010, mise à jour en cours
- Pour l'astronomie
  - E-ELT
  - SKA
  - KM3Net
  - CTA

# Les Work Packages

- WP1: ASTERICS Management Support Team (Astron)
- WP2: Dissemination, Engagement and Citizen Science (Open University) – inclut la partie OV (INAF)
- WP3: Observatory E-environment Linked by common Challenges (CNRS LAPP)
- **WP4: Data Access, Discovery and Interoperability (CNRS CDS) = VO + ESFRI**
- WP5: Connecting Locations of ESFRI Observatories and Partners in Astronomy for Timing and Real-time Alerts (JIVE)

# L'OV est aussi dans le WP2



<b>Participant No *</b>	<b>Participant organisation name</b>	<b>Country</b>
1 (Coordinator)	Netherlands Institute for Radio Astronomy (ASTRON)	NL
2	Centre national de la recherche scientifique (CNRS)	FR
3	Istituto Nazionale di Astrofisica (INAF)	IT
4	University of Cambridge (UCAM)	UK
5	Joint Institute for VLBI in Europe (JIVE)	EU/NL
6	Instituto Nacional de Tecnica Aeroespacial (INTA)	ES
7	University of Edinburgh (UEDIN)	UK
8	Ruprecht-Karls-Universität Heidelberg (UHEI)	GE
9	Open University (OU)	UK
10	Friedrich-Alexander Universität Erlangen Nürnberg (FAU)	GE
11	Free University of Amsterdam (VU)	NL
12	Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA)	FR
13	University of Amsterdam (UvA)	NL
14	Universidad de Granada (UGR)	ES
15	Stichting Fundamenteel Onderzoek der Materie (FOM)	NL
16	Institute for Space Studies of Catalonia (IEEC)	ES
17	Instituto De Fisica De Altas Energias (IFAE)	ES
18	Universidad Complutense de Madrid (UCM)	ES
19	Instituto Nazionale Di Fisica Nucleare (INFN)	IT
20	The UK Astronomy Technology Centre (STFC)	UK
21	Deutsches Elektronen-Synchrotron (DESY)	GE
22	SURFnet	NL

# Situation actuelle de l'IVOA

- Priorités liées aux grands télescopes (multi-D et domaine temporel)
- Construction d'une collaboration avec ces grands projets: Focus sessions aux Interop mai 2013 et 2014
- Ce lien avec les grands projets est critique pour la pérennité du VO

Asterics WP4  
Data Access, Discovery and  
Interoperability

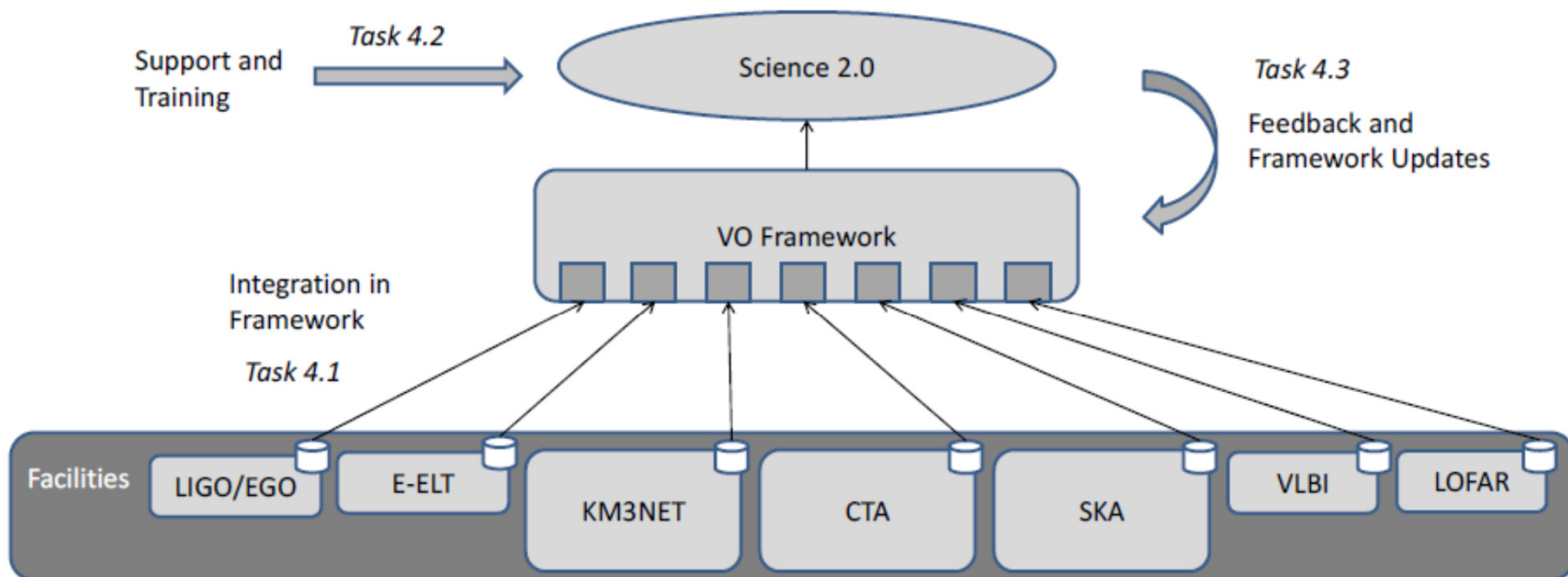


# WP4 objectives

## Objectives

Make the ESFRI and pathfinder project data available for discovery and usage by the whole astronomical community, interoperable in a homogeneous international framework, and accessible with a set of common tools. More specifically:

- Train and support ESFRI project staff in the usage and implementation of the VO framework and tools, and make them active participants in the development of the VO framework definition and updates, thus contributing to relevance and sustainability of the framework.
- Train and support the wider astronomical community in scientific use of the framework, in particular for pathfinder data, and gather their requirements and feedback.
- Adapt the VO framework and tools to the ESFRI project needs, and make sure European astronomers remain lead actors in the IVOA, influencing it in the interest of the European infrastructures and the European scientific community.



# Participants

<b>WP number</b>	4				<b>Start Date</b>	M1
<b>WP title</b>	Data Access, Discovery and Interoperability (DADI)					
<b>Participant Nr</b>	2					
<b>Short name</b>	CNRS OAS	UNISTRA (3 <sup>rd</sup> party)	CNRS LUTH	OBSPAR (3 <sup>rd</sup> party)	CNRS APC	CNRS CPPM
<b>Person months</b>	78	12	7	35	26	12
<b>Participant Nr</b>	4	6	7	8	1	
<b>Short name</b>	INAF	INTA	UEDIN	UHEI	ASTRON	
<b>Person/months</b>	66	66	66	66	42	

# Leadership, Participants and Tasks

- WP4 is led by CNRS, leadership of tasks is shared by CNRS, INAF, INTA, Univ. Edinburgh and Heidelberg Univ.
- All “VO partners” and all “ESFRI/Pathfinders” participate in all tasks
- Tasks
  - ***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 – UHEI + INAF***
  - ***Task 4.2 - Support to the astronomical community – INTA + CNRS***
  - ***Task 4.3 - Updates of the VO framework from feedback and requirements CNRS + UEDIN***
- Outreach towards education: built on previous Euro-VO experience, included in WP2

## Task 4.1 Support to ESFRI and other infrastructures of pan-European interest for implementation of their data in the VO framework (Heidelberg Univ. – INAF)

- Networking and training
  - Annual Forum and Training event to share lessons learnt, discuss requirements and provide training on how to implement data in the VO (years 1 and 3: event open to WP4/ESFRI projects; years 2 and 4: open to other data providers but still focused on ESFRI projects - “European Data Provider” Forum)
  - Provision of on-line tutorials and training material
- Direct support to implementation of ESFRI data in the VO framework, local training of technical and scientific staff (helpdesk, registry, software libraries and repository, visits of experienced staff from VO teams)
- Gathering ESFRI project requirements and feedback from all activities as an input to Task 4.3

## Task 4.2 Support to the astronomical community (INTA – CNRS)

- Provision of training (European, regional and national schools)
  - 1 European school/year (D4.2, D4.6, D4.11, D4.15)
  - Provision of on-line science tutorials
  - Collaboration with science projects to enable them to use the data framework
- Gathering scientific 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 CNRS + UEDIN (1)

- Identification of priorities based on ESFRI, pathfinders and scientific needs (incremental process )
  - Identification of priorities by the Asterics External Advisory Board
  - Initial priorities: multi-dimensional data (including polarization), time domain, provenance, adapt VO-tools to new observables
- Update or definition of standards
  - Participation in IVOA meetings (8 Milestones)
  - Asterics DADI Technology Forum – 2 events in year 1, then 1/year (D4.1, D4.4, D4.8, D4.13, D4.17)
  - Technical work in IVOA Working Groups and Interest Groups driven by the priorities

## Task 4.3 Updates of the VO framework from feedback and requirements CNRS + UEDIN (2)

- Updates of the data-publication tools and software libraries and VO-enabled access tools: technical work on priorities (repository of products)
- Liaison with RDA and other initiatives dealing with interoperability
- Liaison with Asterics WP3



# Deliverables (workshops)

- Asterics DADI Technology Forums (2 the first year then one each year)
- Asterics European schools (each year)
- ESFRI Forum & Training Event (Year 1 & 3: “VO” + ESFRI)
- European Data Provider Forum & Training Event (Year 2 & 4: “VO” + ESFRI + other European data providers)

# Other deliverables

- Annual report on WP4 activities (each year)
  - feedback and requirements on standards and tools from the ESFRI projects and the scientific community,
  - progress in the test implementation at the pathfinders and ESFRI projects,
  - description of and links to the training material,
  - description of Asterics staff activities in the IVOA,
  - description and links to the products (data publication tools & libraries, standards and data access tools)
- Will use Asterics Repository of products (mid-term, final)