

# The ASTERICS project

Shaping the context of the  
DADI VO school  
within the ASTERICS project

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# ASTERICS

What to learn from me?

- ASTERICS
- ESFRI

# Why ASTERICS ?

## Astronomy ESFRI & Research Infrastructure Cluster

EC Horizon 2020 funding for

“Developing new world-class research infrastructures”

Call: INFRADEV-4-2014-2015 - Implementation and operation of cross-cutting services and solutions for clusters of ESFRI and other relevant research infrastructure initiatives

Project: M€15 for 4 years with 23 partners in 6 countries

# New astro(particle)physics RIs

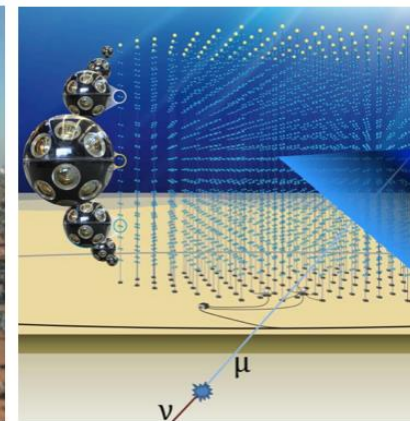
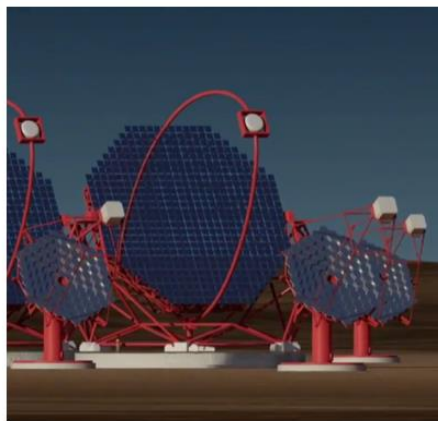
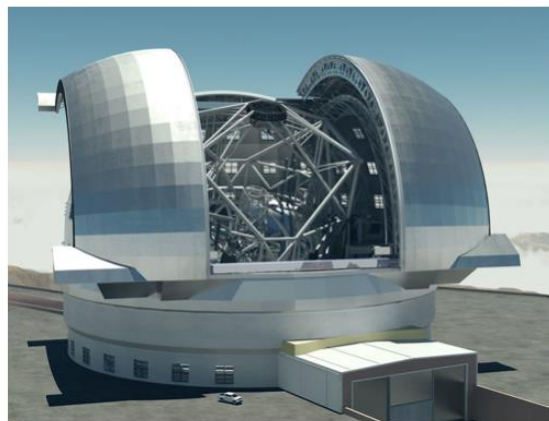
## 4 major future telescopes

Optical  
E-ELT

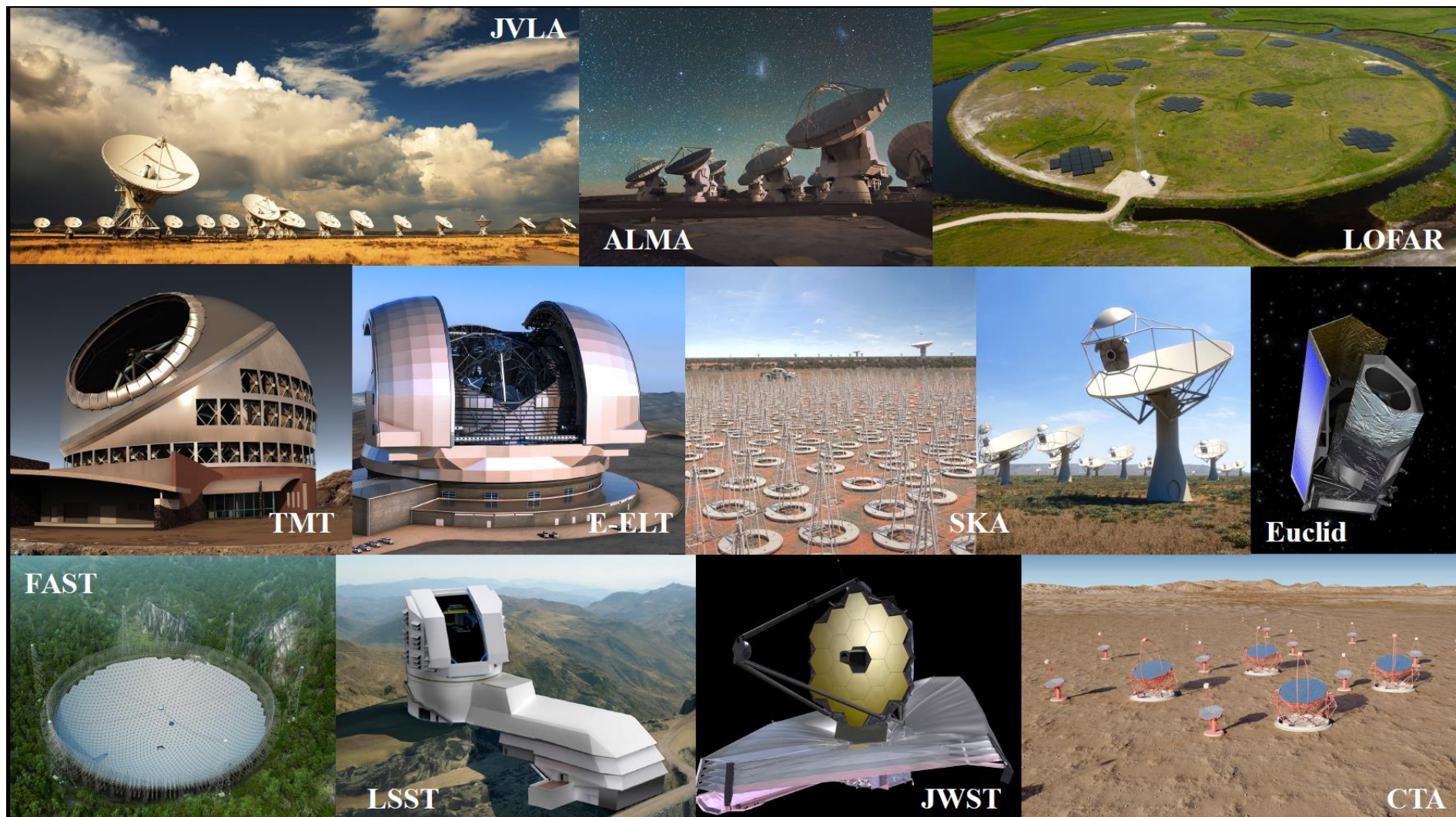
$\gamma$   
CTA

Radio  
SKA

$\nu$   
KM3NeT







# ESFRI

[www.esfri.eu](http://www.esfri.eu)

## European Strategy Forum on Research Infrastructures

[kind of quality certificate for RIs]

### main scope of ESFRI

to support a coherent and strategy-led approach to policy-making on Research Infrastructures in Europe and to facilitate multilateral initiatives leading to the better use and development of RIs.

The ESFRI vision seeks to extend capability of Research Infrastructures to all research fields, driving innovation. It envisions all EU Member States working coherently and jointly together on RIs, to overcome existing limits. This vision for 2020 is ESFRI's contribution to building the European Research and Innovation Area.

# ASTERICS

## Collaboration where possible

Analysing together	Virtual Observatory (VO)	DADI
	Sharing Data Analysis tools	
	(re-)use data in new ways	
	Citizen Science	DECS
Observing together	Scheduling	CLEOPATRA
	Timing	
Developing together	Data extraction/movement	OBELICS
	Data storage/retrieval	
	Data analysis	

# ASTERICS

## Collaboration where possible

Learning  $\Leftrightarrow$  developing

DADI

- School
- Technical Forum
- Data providers Forum

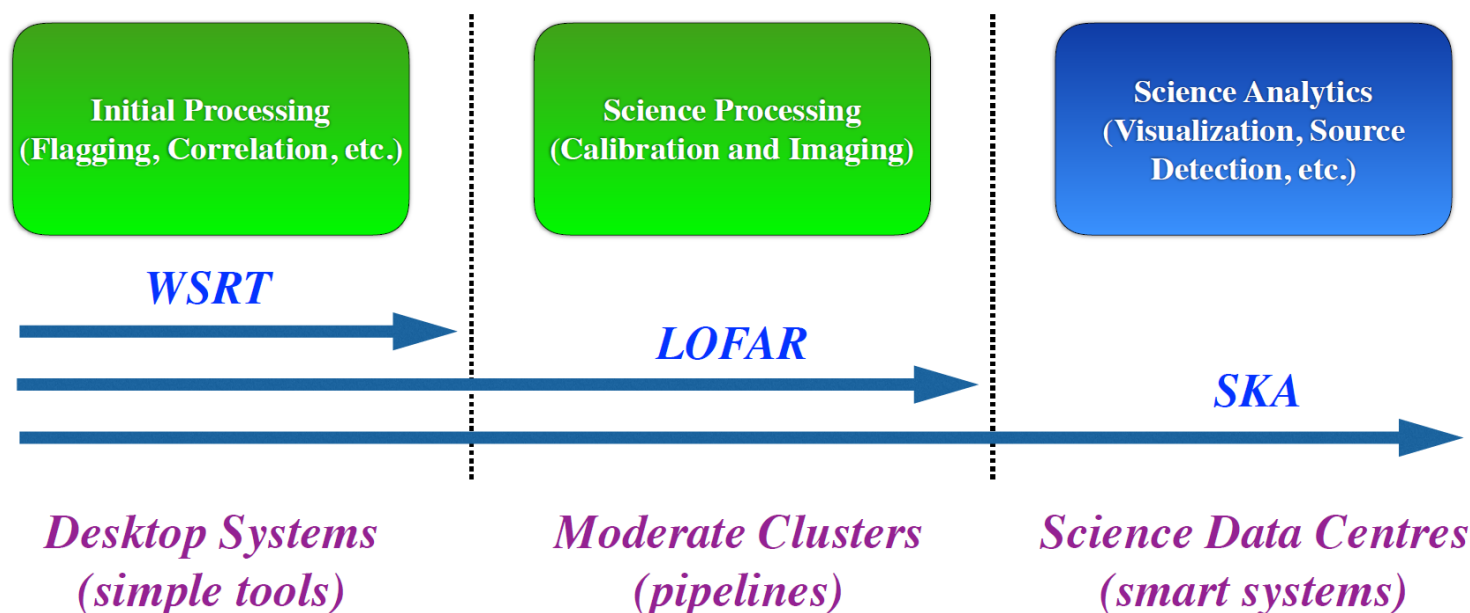
$\Leftrightarrow$  IVOA: International Virtual  
Observatory Alliance

RDA: Research Data Alliance



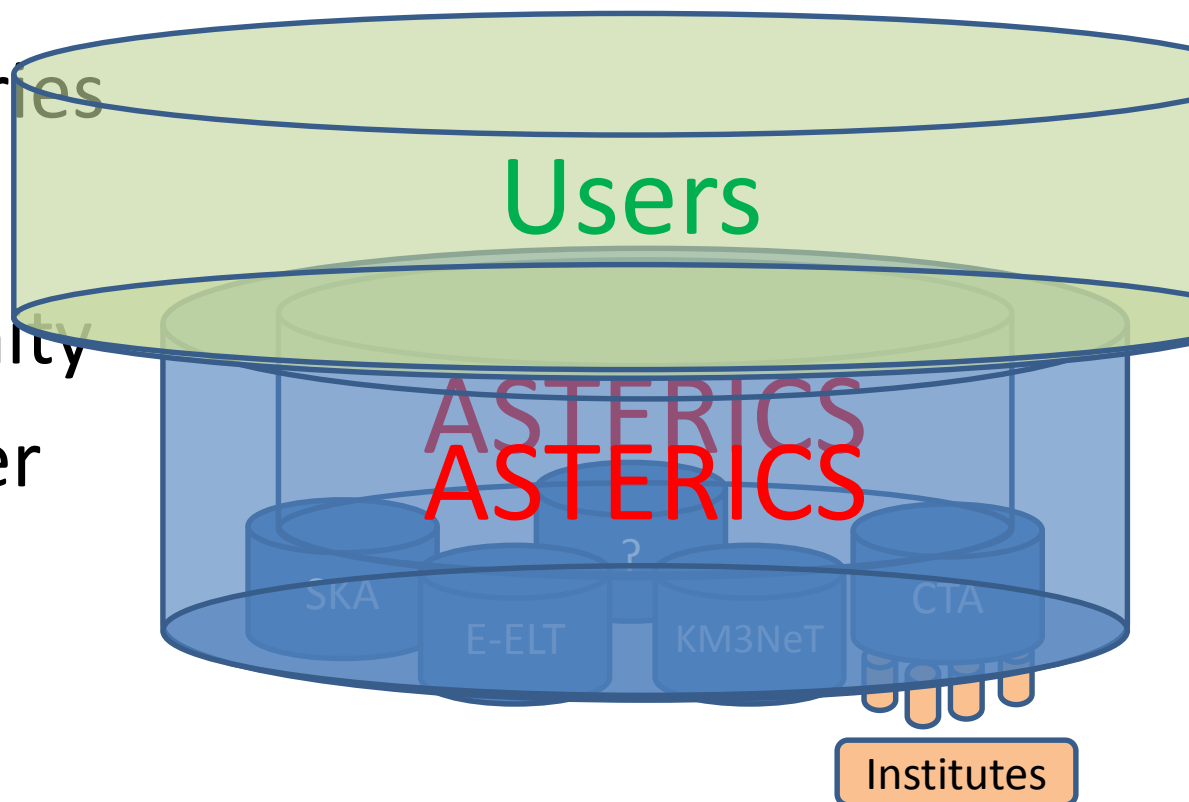
# Scaling

## NWO Full Cost of Science Extraction ASTRON



# Why ASTERICS?

- Flatten boundaries
- Find synergies
- Create community
- Multi-messenger



# Thank you

## Stay connected and informed

[www.asterics2020.eu](http://www.asterics2020.eu)

## Have a nice school !

# ASTERICS

## Astronomy ESFRI & Research Infrastructure Cluster

- Address cross-cutting **synergies** and **common challenges**
- **SKA, CTA, KM3Net, E-ELT** & precursors and pathfinders
- Brings together the astronomy, astrophysics and particle astrophysics communities
- support and accelerate the implementation of the ESFRI telescopes
- cross-facility synchronicity for distributed and interoperable multi-messenger astronomy.

# ASTERICS

## Astronomy ESFRI & Research Infrastructure Cluster

- Develop: management, processing and scientific exploitation of huge datasets
- **Virtual Observatory** framework to increase the scientific impact of the telescopes, and greatly encourage use (and re-use) of the data in new and novel ways, typically not foreseen in the original proposals.
- develop **citizen scientist** mass participation experiments
- Ambition to be a flagship for the scientific, industrial and societal impact ESFRI projects can deliver.