

SpaceSci-RI - Horizon Europe

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Context

EC call in Horizon Europe

HORIZON-INFRA-2023-SERV-01-02:

Research infrastructure services advancing frontier knowledge

- Unique opportunity for RI proposal in astronomy (until at least 2025)
- Extreme enlargement of RI: need to group previous actions in related fields
- Call opened to other fields: Biospheres; Arts & Humanities
 - harsh competition, only 2 proposals will be funded
- 15 M€ budget

Call published early Dec 2022, DL = 9/3/2023

— Actually 2 bids submitted from astronomy: SpaceSci and ACME

What EC expects

1) to gather together existing RI in astronomy

(focus on space activities, excluding Earth observation)

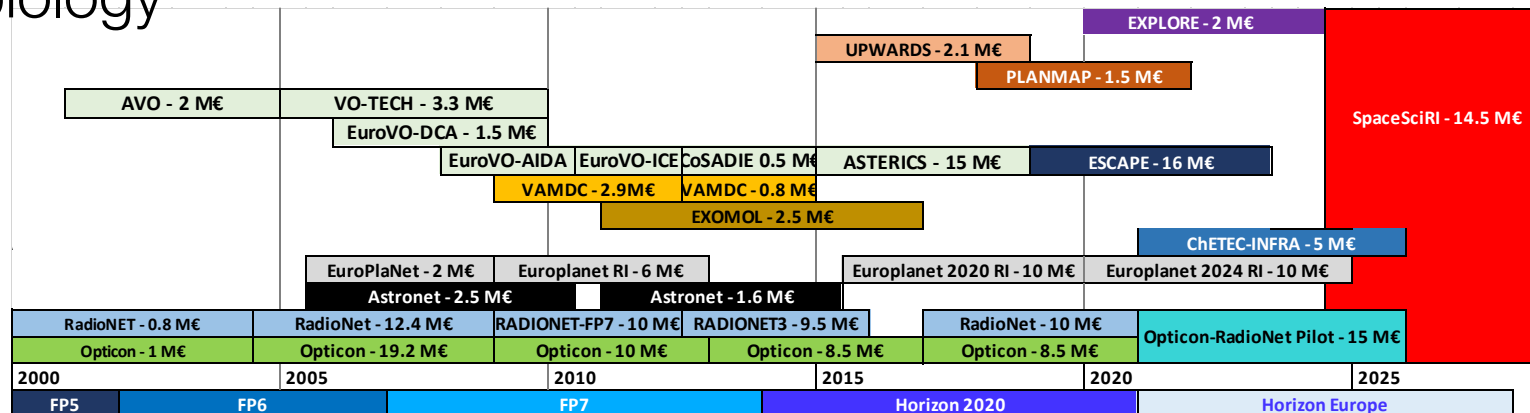
Astronomy community: ESCAPE, RadioNet/Opticon/ORP...

Europlanet programmes (4 successive RI + associated programmes)

ChETEC (current RI prg)

+ VAMDC (FP7 pgr heritage)...

+ astrobiology



What EC expects

2) to provide access to facilities and data

- TAs - provide access to 100+ facilities:
Observatories (optical and radio)
Lab experiments (including large ones: synchrotrons...)
Fields studies: terrestrial analogues of planet and exoplanet environments
- VA - connect and expand the use of existing data infra, focus on the VO
 - Enforce FAIR principles and Open Science policy
 - Use EOSC developments

(no development allowed)

Setup

Proposal initiated and organised by Europlanet management

(University of Kent — 70 partners from 28 countries)

=> Large participation/responsibilities of Planetary Science

=> For the VA, need to put forward mainstream VO activities instead



Virtual Activity

WP5 Lead: M. Molinaro / INAF-OATs, deputy: S. Erard / ObsParis

task 1 - Data provisioning - S. Erard / ObsParis

task 2 - Harmonising Virtual Access - M. Allen / CDS

task 3 - Workflow & Machine Learning - S. Ivanovski / INAF-OATs

budget = 2.7 M€ (was not there before the final call!)

+ tutorials / schools for users in WP6

Virtual Activity

Will integrate several data infrastructures:

- Virtual Observatory (with Euro-VO heritage: ESCAPE, ASTERICS...)
includes archives / data infra in radio
- VESPA (VA in Europlanet)
- SSHADE (from Europlanet/VESPA & VAMDC)
- SPIDER (VA in Europlanet + IMPEX heritage)
- GMAP (VA in Europlanet + smaller programmes)
- VAMDC (from FP7 programmes)
- + Machine Learning Tools (several pieces, including a VA in Europlanet)
- + various databases with reduced interoperability: ExoMol, NACRE3, etc
- + platforms: EXPLORE, link to ESAIab, etc

VA participations

French ones

- Paris Observatory - for Astro-VO, VESPA, VAMDC
involves PADC, LESIA, LERMA
- CNRS: CDS (Strasbourg), IRAP (Toulouse), IPAG (Grenoble), ICB (Dijon)
- ACRI-ST (industry)

Others

- INAF/OATs, U Edinburgh, U Heidelberg, LOFAR, JIVE (E-VLBI), ASWO (Aust), UCL, U Padova, CSIS, HZDR, Constructor Uni (Ge), Leiden Uni

Overall participations

Other French beneficiaries

- Telescopes: CFHT, TBL
- Facilities: IPAG (CSS), Sorbonne Uni/SOLEIL (SPICES), U Rennes (CRESU), CRPG (SGRIF, ion probe)
- Field studies: _
- Management: ESF (Strasbourg)

Overall budget in France (approx): ~ 15%

Time line

Submission: 9/3/2023

Answer: Sept 2023?

Start time: either Sept 2024 or Feb 2025
4-year programme