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Community research

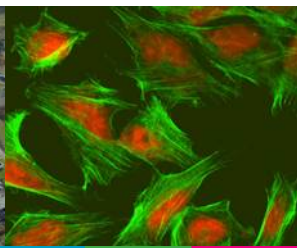


International Information Day & Brokerage Event for the 5th Call Space in FP7

Riga, 18th - 19th July 2011

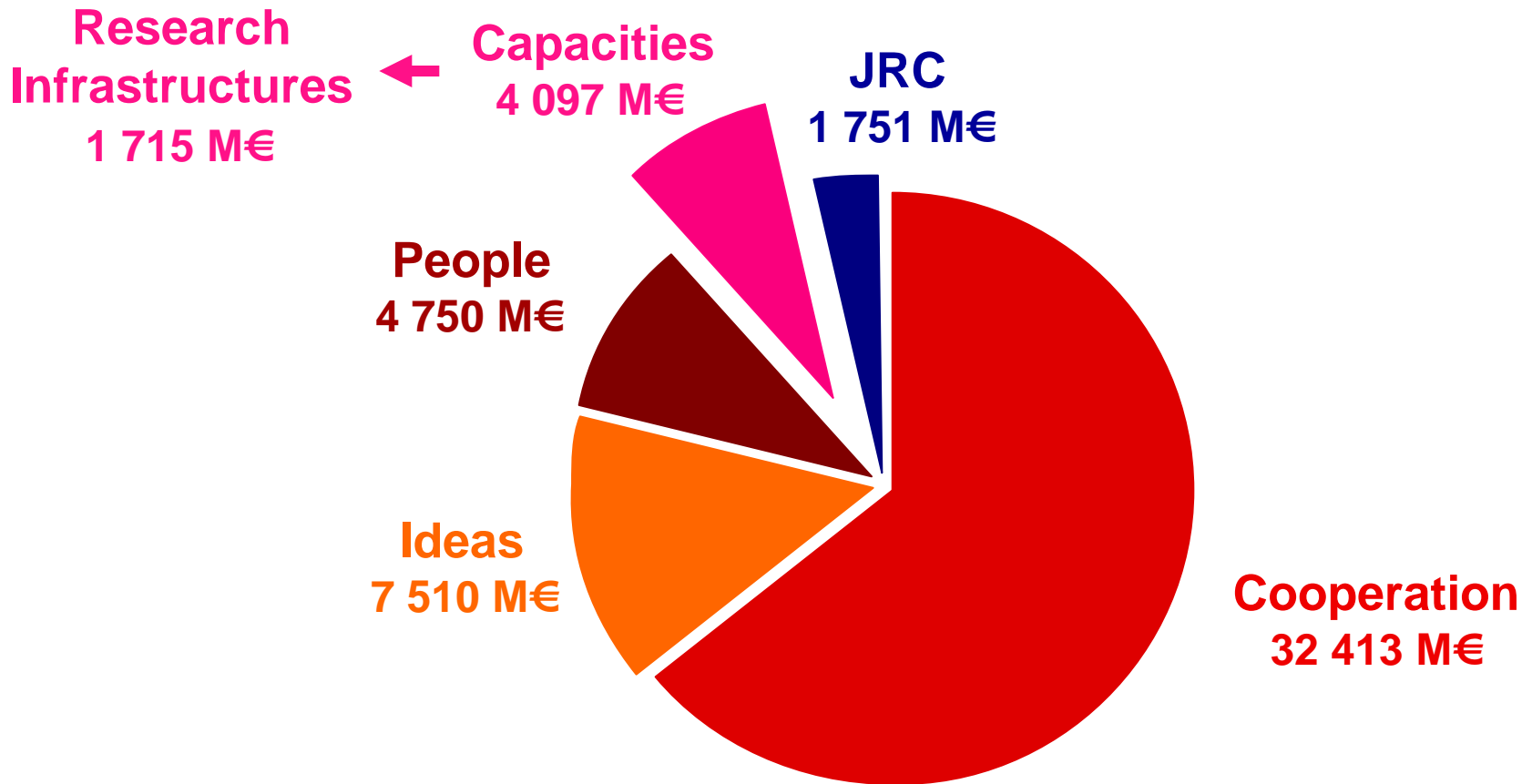
Research Infrastructure Topics in the field of Astronomy FP7-INFRASTRUCTURES-2012-1

**Andis Zilans, Latvian NCP
Research Infrastructures, Environment, BIO**





FP7 budget



FP7 budget (50 521 M€)



Definition of Research Infrastructures

Research Infrastructures (RI) represent facilities, resources, and related services used by the scientific community for conducting top-level research in their respective fields



Definition of Research Infrastructures

RI include:

- Major scientific equipment or set of instruments
- Scientific collections, archives and structured information
- Enabling ICT-based “e-Infrastructures”
- Any other entity of a unique nature, used for research

RI can be:

- “Single-sited” or “distributed”

Subject to international review



Objectives of the Community Research Infrastructures action

- To optimise the use and development of the best **research infrastructures existing** in Europe
- To create **new research infrastructures** of pan-European interest in all fields of S & T
- To support programme implementation and **policy development** (e.g. international cooperation)



FP7 Research Infrastructures action



(✓ call FP7-INFRASTRUCTURES-2012-1)



Call budget

FP7-INFRASTRUCTURES-2012-1

Indicative total budget: **EUR 90.30 million (+78.5M€)**

+ 78.5 M€
(budget to be
added from 2013)

1.1 Support to existing research infrastructures	
1.1.1 Integrating activities	~ 30.00 M€
1.2 Support to new research infrastructures	
1.2.2 Construction of new infrastructures (or major upgrades) – preparatory phase	~ 22.30 M€
1.2.3 Construction of new infrastructures (or major upgrades) – Implementation phase	~ 20.00 M€
1.3 Support to policy development and programme implementation	~ 18.00 M€



Indicative timetable

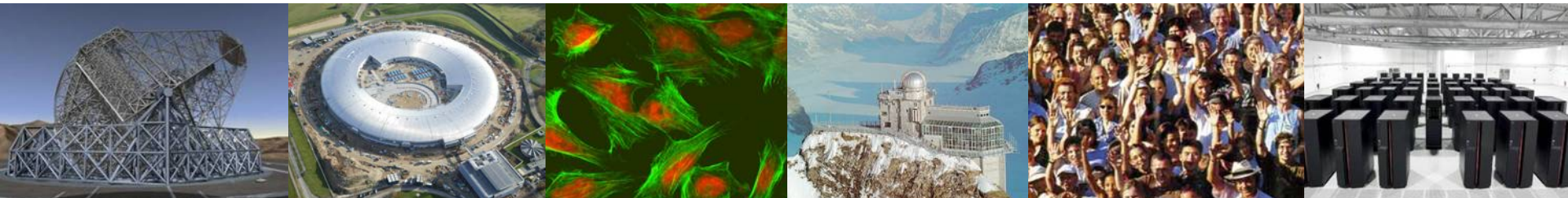
→ Date of publication	20 July 2011
→ Deadline	23 November 2011 17:00 (Brussels time)
→ Evaluation	Dec. 2011 – Feb. 2012
→ Evaluation results	March 2012
→ Launch of negotiation	May 2012
→ Signature grant agreements	from autumn 2012
→ Pre-financing	45 days after signature grant agreement
→ Starting date	to be negotiated



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Integrating activities





Integrating activities

Objectives and activities

Objectives: bring together and integrate, on a European scale, key research infrastructures (RIs) **in a given class**, in order to promote their **coordinated use** and **development**.

● **Activities:**

- (1) Transnational **access** and/or **service** activities and
- (2) **Networking** activities,
- (3) **Joint research** activities

Funding scheme: CP-CSA (combination of ‘collaborative project’ & ‘coordination and support actions’)



Integrating activities

(1) Transnational access and/or service activities

Objectives: to support scientific communities in their **access to the participating RIs**

- ***Transnational access and service activities:***
 - ➔ To provide access 'free of charge'
 - ➔ 'Hands-on' access or **remote** access (sample analysis...)
 - ➔ To support access to **scientific services** freely available through communication networks e.g. databases available on the web
 - ➔ Only services **widely used** by the community of European researchers will be supported

Support limited to 20% of the operating costs



Integrating activities

(2) Networking activities

Objectives: to foster a culture of **cooperation between the RI and scientific communities and help developing a more efficient and attractive **ERA****

- ***Networking activities :***

- Joint management of **access** provision...
- Definition and development of common **standards**, protocols, **databases**...
- Spreading of **good practices**, training to **new users**...
- **Coordination** with national or international initiatives...
- Promotion of **long-term sustainability**, involvement of funders, business plan...



Integrating activities

(3) Joint research activities

Objectives: to improve (in quality and/or quantity) the services provided by the RIs

→ Explore new fundamental technologies or approaches underpinning the **efficient** and **joint use** of the participating RI

- ***Joint Research Activities:***

- **Methodologies**, protocols, **instrumentation, software...**

- Integration of infrastructures into **virtual facilities...**

- Innovative solutions for **data** collection, management, curation and annotation...

- Impacts on social, environmental and economic levels...



Integrating activities

Eligibility and requirements

Eligibility conditions

- General criteria: deadline, completeness, relevance to topics...
- Min. 3 independent legal entities from 3 different MS or AC
- Max. requested EC funding: 10 M€
(warning: € 10.000.000,01 → proposal NOT eligible!)
- All 3 types of activities are **mandatory**: (1) transnational access and/or service, (2) networking, (3) joint research activities

Further recommendations

- Maximum 4 years
- One third of the EU contribution allocated to Access provision
- One proposal expected per topic, corresponding in general to a given class of RI



Integrating activities

Targeted approach

- This call addresses **27 defined topics**, focusing on strategic priorities
- With topics for the potential follow-up of projects and with topics for the opening to new communities
- More topics than can be funded to ensure competition (around **15** projects expected to be selected)
- To develop synergies and complementarities between FP7 and cohesion policy, applicants are encouraged to check the operational programme for Structural Funds applicable in their regions and to contact the related managing authorities for complementary or alternative support

Topic codes: INFRA-2012-1.1.1,... INFRA-2012-1.1.27



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Integrating activities

List of topics

Social sciences and humanities – 3

Life Sciences – 7

Environmental Sciences and Earth Sciences – 6

***Energy, Materials Sciences and Analytical
Facilities – 7***

Physics – 1

Astronomy – 3



EU Astronomy facilities as World-class research infrastructures

Key element of the Lund declaration adopted on 8 July 09

- Essential for Europe's researchers to stay at the forefront of research development
- Key component of Europe's competitiveness in "frontier" research

Key Challenges:

- *Overcoming fragmentation in Europe*
- *Coping with increasing costs / complexity*
- *Improving efficiency of (and access to) research infrastructures services, incl. e-infrastructures*



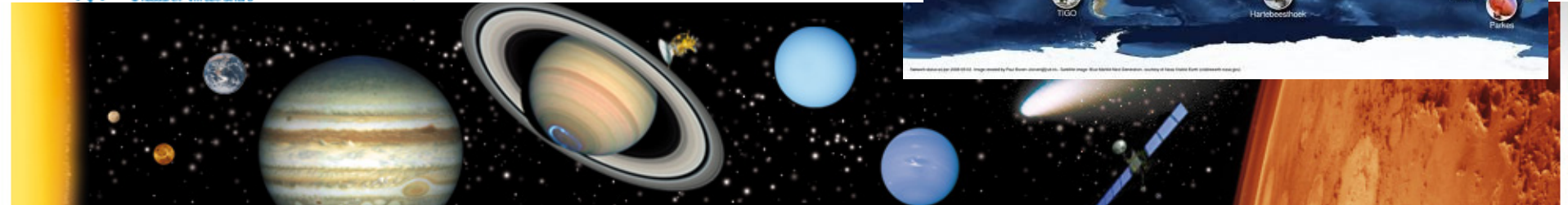
Community support to Research Infrastructures in Astronomy

- **Support to *existing* facilities**
 - Integrating Activities (FP6 and FP7)
 - Coordination Actions (FP6 only)
- **Support to *new* facilities**
 - Bottom up: Design Studies (both FP6 and FP7) and Construction of New Infrastructures (FP6 only)
 - Strategic (top down): Preparatory Phases of the facilities on the ESFRI Roadmap (FP7 only)

**Community support for
Astronomy RIs is ~20% of the
total RI budget for FP6 and FP7**



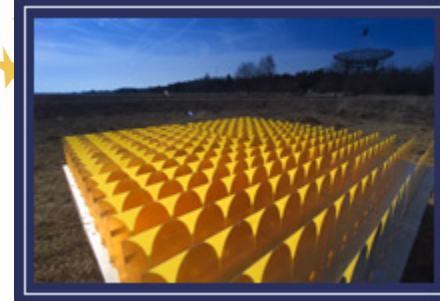
FP6 and FP7 Support to existing RIs



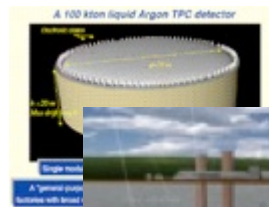
ALMA Early Science Construction of band 5 receivers



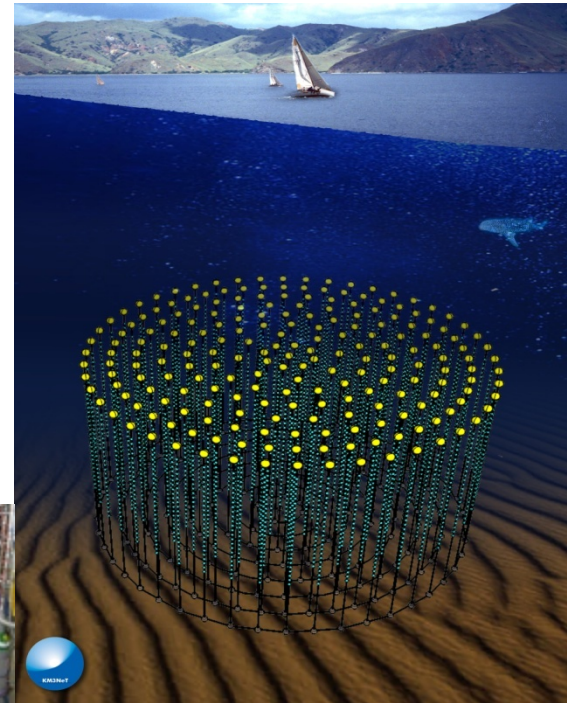
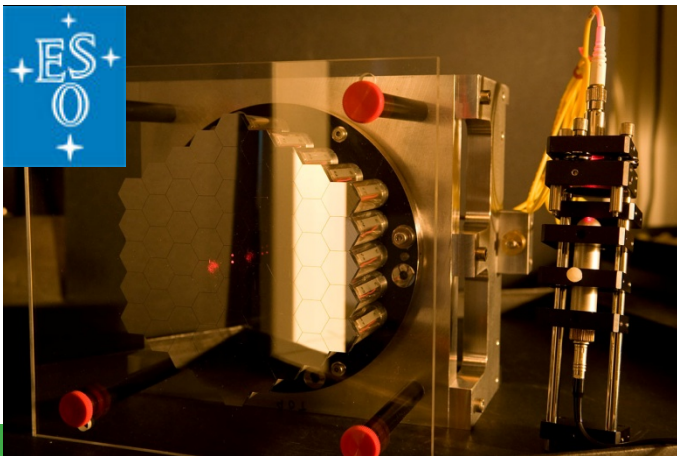
SKADS



FP6 and FP7 Support to the Design and Construction of new Astronomy RIs



LAGUNA DS





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ERANETs for Astronomy and Astroparticle Physics

- ASTRONET and ASPERA coordinate at Community level activities related to the management of Observatories
- Both prepared Thematic roadmaps that set priorities in their respective fields.





Astronomy – Integrating Activities

25. Research Infrastructures for optical and infrared astronomy

- *continuation of OPTICON*
- *provide and facilitate access to the key research infrastructures in Europe for optical and IR astronomy*
- *integrate these facilities and resources with a long term perspective*
- *stimulate new scientific activities aimed at taking full advantage of new experimental possibilities which will be offered by the future European Extremely Large Telescope ("E-ELT")*



Astronomy – Integrating Activities

26. Research Infrastructures for High-Resolution Solar Physics

- *integrate key research infrastructures in the field of high resolution solar physics*
- *contribute to the realisation of the future large European ground- and space-based solar telescopes and to a Solar Virtual Observatory*
- *foster cooperation between theory and observations*
- *enhance synergies with other projects and scientific communities such as the Solar Atmospheric and Interplanetary Research training network (SOLAIRE), the Optical Infrared Coordination Network for astronomy (OPTICON), and stellar physics.*



Astronomy – Integrating Activities

27. Research Infrastructures for space weather

- *observation and study of the ionosphere and magnetosphere.*
- *integrate European Incoherent Scatter radar system (EISCAT) and other incoherent scatter radar systems, satellites, solar ground based-observatories, ionospheric sounders, Global Navigation Satellite Systems (GNSS) receivers and ground magnetometers.*
- *facilitate access to these research infrastructures and to standardized and validated observational data in particular real-time data.*
- *research supported in this field should result in models and databases that also could be a basis for operational forecasts and warnings to society.*



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Latvia in FP7 Research Infrastructure Projects

6 Calls: **25** participations from Latvia

✓ **14** financed projects with LV participation

ASTRONOMY Research Infrastructure Projects **Ventspils University**

- ✓ Advanced Radio Astronomy in Europe **RadioNet-FP7**
- ✓ Advanced Radio Astronomy in Europe **RadioNet3**
- ✓ Novel EXplorations Pushing Robust e-VLBI (Electronic-Very Long Baseline Interferometry) Services **NEXPreS**



Contacts and Information

National Contact Points

http://cordis.europa.eu/fp7/get-support_en.html

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EuroRIs-Net

*European Research Infrastructures Network of
National Contact Points* <http://www.euroris-net.eu/>

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Thank you for your attention!