

GMES in Estonia

Experiences, Competences, Activities - Towards User Forum

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workshop: GMES Services for Finnish Users

January 9th, 2013, Helsinki

Finnish Meteorological Institute, Finland

Structure for the Space Governance in Estonia

Space Policy Working Group - Advisory body, generation of ideas

- Established by **Ministry of Education**
09.03.2006

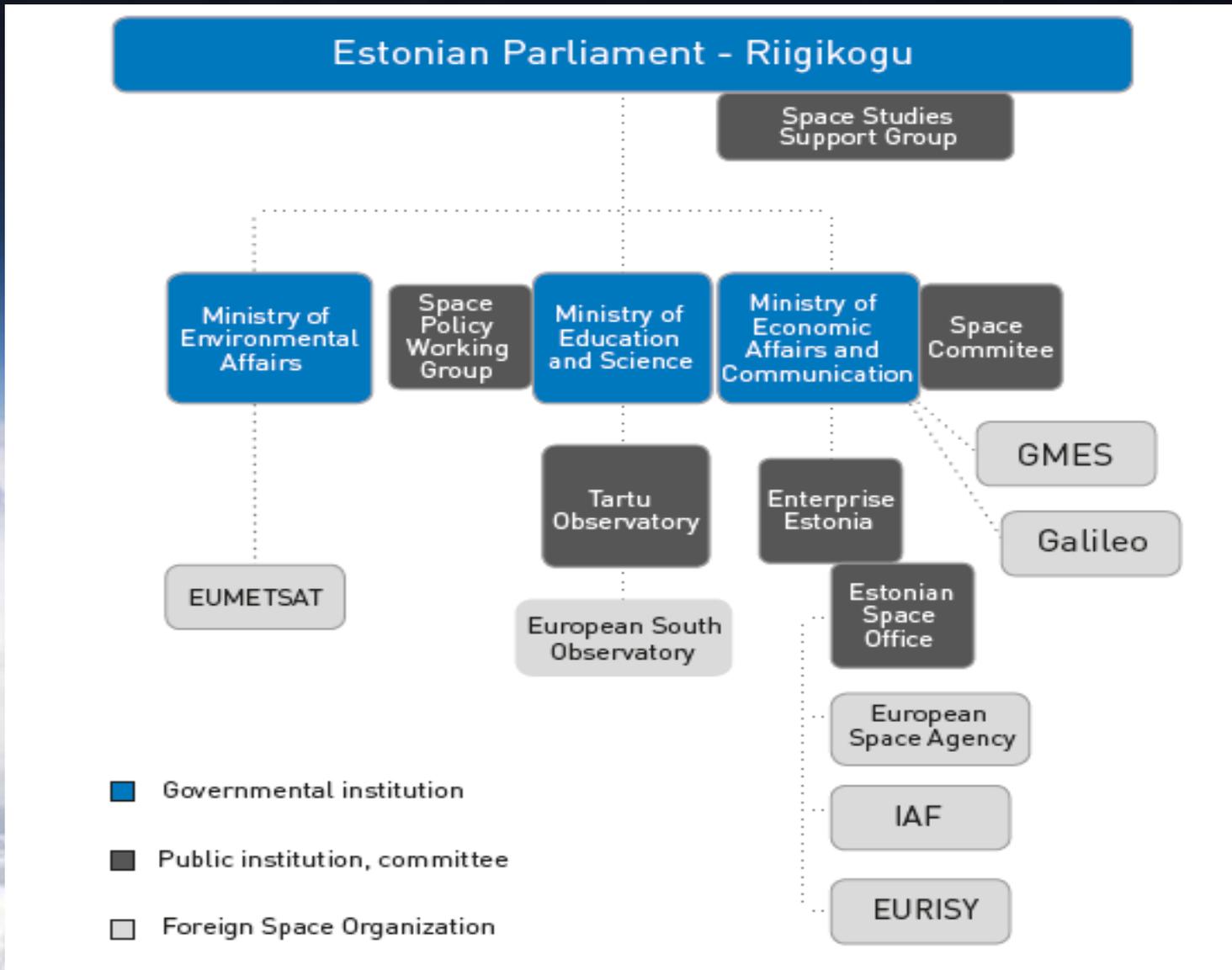
Space Committee -Government institution to coordinate policy, actions and funding

- Established by **Ministry of Economic Affairs and Communications** , 04.05.2010

Remote Sensing Action Group

- Group of Experts – 27.11.2012

Links and responsibilities of different partners



Space strategy documents

SPACE RELATED R&D ACTIVITIES IN ESTONIA

TOWARDS ESTONIAN SPACE
POLICY AND STRATEGY



EESTI KOSMOSEVALDKONNA
STRATEEGIA 2011 – 2013

Kosmoserakenduste innovatsioonistrateegia kõrgtehnoloogiliste
teenuste arendamiseks



Tallinn 2011

Eesti kosmosevaldkonna strateegia 2011-2013 rakenduskaava

EESTI KOSMOSEVALDKONNA
STRATEEGIA 2011 – 2013

RAKENDUSKAVA 2011-2013



Tallinn 2012

Strategy is incorporated in the implementation plan of “Knowledge-based Estonia 2007-2013”

Priority fields:

Earth Observations

Communication and positioning

Space Science

Public sector

- Awareness and training
- Procurement for innovation
- Roadmaps for priority fields

Business

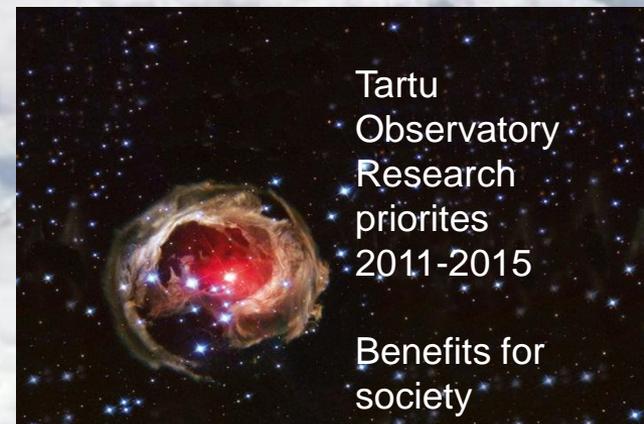
- Awareness and training
- Demo-centre for space applications
- Business competitions

Academia

- Competence centres
- Infrastructure development
- Educational programmes

Estonian Space Strategy sets GOALS for 2020

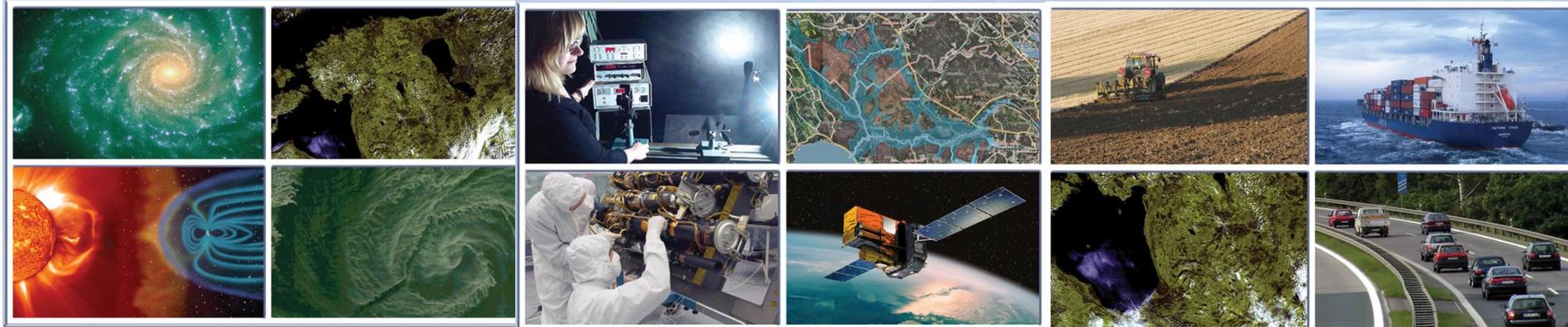
- systematic use of **satellite-based applications in the public sector**
- high interest in society in natural sciences and technology, ICT and business innovation;
- **integration of research institutes and businesses in value chains of European space industry;**
- active participation in the development of European space policy



Research

Applications

Output to society



- Cosmology
- Stellar physics
- Earth observation
- Space technology

- environmental monitoring
- high-tech entrepreneurship
- optical calibration and radiometry
- specific hardware and software

- services for public
- expertise and consultancies
- popularisation of science
- education at school and university level

Actions towards GMES governance

- Visibility study „ Use of Earth Observations by public sector“ 2011-2012 – report (Invent Baltic)
- Series of training and awareness events: forestry, agriculture, traffic , environment – 2013-2014, (Tallinn Technical University, Tartu Observatory)
- Increase Estonian involvement in International space networks- GEOKOSMOS 2012-2014(Tartu Observatory, Tallinn Technical University, Tartu University, Ministry of Environment)

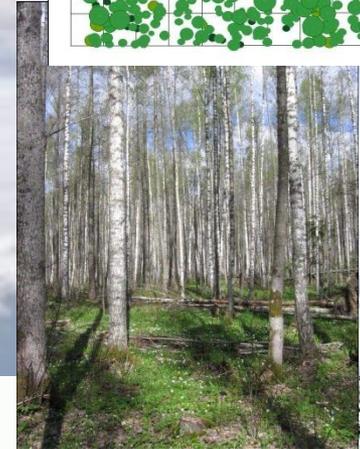
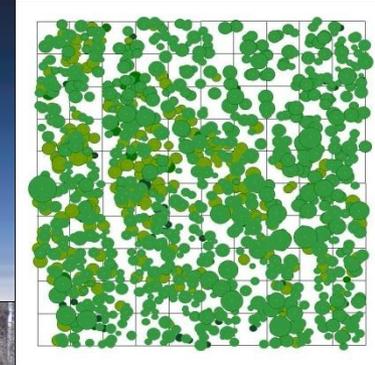
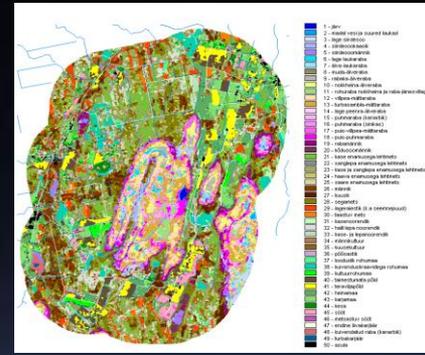
Finances for the applications

National Research projects (target financing and grants)

Applied projects directly from public authorities (Ministry of Environment, Defence, Internal affairs, Agriculture *etc*)

Research and development in cooperation with enterprises – *Enterprise Estonia*

International collaboration contracts and projects – FP7, ESA, EU Structural Fund



Competences



Forest and land cover EO, agriculture, water and ozone in atmosphere, water, instrumentation for ground, airborne and nanosatellites, test and validation,



Oceanography, environment in harbors, ice and snow, oil pollutions, instrumentation and networks



Biodiversity, GIS, mapping, positioning
Climate, weather, atmosphere,
Education



Forestry, Agriculture, Hydrobiology
Interactions- Atmosphere-Forest- Water

Mapping, SAR applications (forest, surface water), atmospheric gases
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REGIO

Large international networks (1)

- **EUROPEAN SPACE AGENCY- PECS**
- **INTERREG-IVA -Spatial planning in archipelago waters by high spatial resolution remote sensing (HISPARES) 2010-2012**
- WaterS“Strategic partnership for improved basin-scale Water quality parameter retrieval from optical Signatures” 2010-2014
- **SAFEWIN Safe Navigation in Dynamic Ice Conditions 2009-2013**
- **EstSpacE- Expose the Capacity of Estonian Space Research and Technology through High Quality Partnership in Europe 2008-2010**

Large international networks (2)

NordicBaltSat Support to new EU-Member States/Associated States (2010-2012)

Nordon- Nordic Network for Aquatic Remote Sensing (2009-2014)

DORISnet under Call - Support Action Fostering downstream activities and links with regions” 2010-2013

MyOcean, MyOcean-2 Marine Core Service

Ventspils and Tartu cooperation in space

technologies related research and training (200



• ***GLaSS- Global Lakes Sentinel services***

Relevant new infrastructure

Estonian Environmental Observatory- in situ network

Biology and chemistry labs in TTU

Space technology and optical calibration
laboratories in TO)





GEOKOSMOS and DORIS_Net Workshop on Earth Observation services for Estonian Users

January 10 2013,

**Radisson Blu Hotel, Rävåla Puiestee 3, Tallinn
10143, ESTONIA**

ESTABLISHMENT OF ESTONIAN COPERNICUS USER FORUM



Thanks

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