



# Space related research supported by EC 7th Framework Programme, overview on Baltic's

Dr.sc.ing Kaspars Kalniņš

EC Framework Programme 7, National Contact point – Security, Space and Transport  
Riga Technical University, Institute of Materials and Structures

# What is the Seventh Framework Programme?



- The Seventh Framework Programme (2007-2013) of the European Community for Research, Technological Development and Demonstration Activities

- Budget about **50 billion €**

- Building the Europe of Knowledge

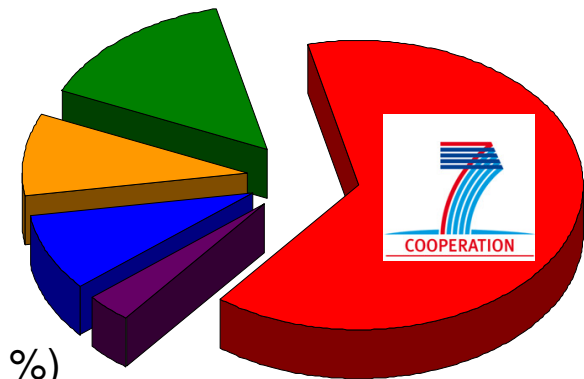
„Ideas“ (ERC)  
€ 7.46 Mio. (14.8 %)

„People“ (Marie Curie)  
€ 4.728 Mio. (9.4 %)

„Capacities“  
€ 4.217 Mio. (8.3 %)

„Joint Research Centre“  
€ 1.751 Mio. (3.5 %)

„Cooperation“  
€ 32.365 Mio. (64 %)



- The biggest public funded Research Programme in the World
- FP7 is designed to generate **new knowledge**, new innovative technologies and new intellectual property for Europe to compete with the most important Economy of the world, mainly USA and Japan

# FP-7 Specific Programmes

## COOPERATION – Collaborative research



- **Health**
- **Food, agriculture and biotechnology**
- **Information and communication technologies**
- **Nanosciences, nanotechnologies, materials and new production technologies**
- **Energy**
- **Environment (including climate change)**
- **Transport (including aeronautics) - Biannual GALILEO call`s**
- **Socio-economic sciences and the humanities**
- **Space – Annual GMES call`s**
- **Security**

# FP-7 Specific Programmes

## COOPERATION – Transport research



**EC FP7 funded R&D on GNSS research – GALILEO call`s**

- **FP7-GALILEO-2007-GSA**

**Has been launched in 2007 with indicative budget: 25 M €**

- **FP7-GALILEO-2008-GSA**

**Has been launched in 2008 with indicative budget: 30 M €**

- **FP7-GALILEO-2011-GSA**

**Has been launched in 2010 with indicative budget: 27.5 +3 M €**

Overview

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GMES (Global Monitoring for Environment and Security) is the European Programme for the establishment of a European capacity for Earth Observation.

This website is dedicated to the EU-funded R&D activities that support the implementation of the GMES programme.

The views expressed on this website are those of the authors and do not necessarily represent those of the European Commission or of the European Space Agency. Official information on GMES is available on the GMES institutional portal:



## WHAT'S NEW

11 May 2012 :  
**NEREUS/ESA Joint Publication**

Deadline for contributions extended until 21 May 2012

10 Apr 2012 :  
**GMES Mobile Apps**

ESA is inviting 20 developers to its "App Developer Lab" from 18 to 22 June 2012

02 Apr 2012 :  
**FP7**

2013 FP7 Work Programme draft now available

13 Mar 2012 :  
**GMES Conference**

"GMES in Action" will take place on 4-5 June 2012 in Copenhagen

**Newsletter  
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## FOCUS EVENT

**International Forum on Satellite  
Earth Observation for Geohazard  
Risk Management**  
21 May 2012 - 23 May 2012  
**Santorini, Greece**

# FP-7 Specific Programmes

## COOPERATION – Space research



EC FP7 funded R&D on GNSS research – GMES call`s

- **FP7-SPACE-2007**

Has been launched in 2006 with indicative budget: 34.5 M €

- **FP7- SPACE-2009**

Has been launched in 2008 with indicative budget: 51.5 M €

- **FP7-SPACE-2010**

Has been launched in 2009 with indicative budget: 114 M €

- **FP7- SPACE-2011**

Has been launched in 2010 with indicative budget: 99 M €

- **FP7-SPACE-2012**

Has been launched in 2011 with indicative budget: 84 M €

- (The official infoday was held in Riga, July 2011)

- **FP7- SPACE-2013**

To be launched in July 2012. **Orientation paper available now:**

[http://ec.europa.eu/enterprise/newsroom/cf/\\_getdocument.cfm?doc\\_id=7404](http://ec.europa.eu/enterprise/newsroom/cf/_getdocument.cfm?doc_id=7404)



## **Approach for 2013**

*Activity 9.1. Space-based applications at the service of European Society*

*Activity 9.2. Strengthening the foundations of Space science and technology*

*Activity 9.3. Cross-cutting activities*

### **Activity: 9.1 Space-based applications at the service of European Society**

*Area 9.1.1 (Pre-)operational validation of GMES services and products*

- SPA.2013.1.1-01: Global 20th century re-analysis and future coupling methods
- SPA.2013.1.1-02: Ensemble system of regional re-analyses
- SPA.2013.1.1-03: Traceable quality assurance system for multi-decadal ECVs
- SPA.2013.1.1-04: Provision of access to simulated and observed climate datasets and climate indicator toolbox
- SPA.2013.1.1-05: Attribution products
- SPA.2013.1.1-06: Stimulating development of downstream services and service evolution
- SPA.2013.1.1-07: Remote sensing methods

*Area 9.1.2 Integration of satellite communication and satellite navigation solutions with space-based observing systems*

- SPA.2013.1.2-01: Integrated downstream service activities and applications



## Approach for 2013

*Activity 9.1. Space-based applications at the service of European Society*

*Activity 9.2. Strengthening the foundations of Space science and*

*technology* **Activity 9.3. Cross-cutting activities**



### **Area 9.3.2: International cooperation**

#### SPA.2013.3.2-01: Cooperation with third countries

Recent developments in dialogues on space cooperation indicate that there is a good opportunity to benefit from **cooperation with the Ukraine**, and this could be inserted into the 2013 work programme as follows. In the framework of the Joint working group on EU-Ukraine space cooperation, several activities for development have been identified. R&D proposals are invited which address one of the following three subject areas:

- **GMES services for agricultural needs;**
- **Super light-weight materials and coating technologies for space-based systems;**
- **Methodologies and technologies for active removal of space debris.**

*It is expected that proposals provide the opportunity for R&D to the mutual benefit of EU and Ukrainian participants, with a balanced distribution of efforts between the EU and Ukrainian partners.*

A further domain of interest for international cooperation is the validation and further refinement of monitoring methods of air-quality globally and at regional levels. In the framework of **cooperation with China**, proposals are invited which address the improvement of monitoring methods of air-quality (combining space and in-situ data), validation, elaboration of indicators and development of a remote-sensing toolbox for air-quality and emissions monitoring.

*Expected impact: Projects are also expected to positively impact the international collaboration in this field beyond the timeframe of EC support.*



## Lessons learned from 4th call outcome:

FP7- SPACE-2011

Has been launched in 2010 with indicative budget: 99 M €



**Overall: 124 proposals received**

**Total budget request = € 340 million (out of call budget of € 99 million)**

**Budget request for "competitive" topics = € 292 million out of budget of € 51 million**

**Oversubscription rate for competitive topics = 6:1**

**Additional budget available (+10%)**

**79 proposals ranked, 43 below threshold, 2 ineligible**

**33 proposals selected, 11 placed on reserve list**

### **International cooperation (in particular space-faring nations)**

**Out of the 124 proposals received, 83 partners from "space-faring"**

**nations (total) (above threshold)**

<b>CA =</b>	<b>7</b>	<b>6</b>
<b>CN =</b>	<b>2</b>	<b>1</b>
<b>IN =</b>	<b>1</b>	<b>0</b>
<b>JP =</b>	<b>7</b>	<b>4</b>
<b>RU =</b>	<b>23</b>	<b>15</b>
<b>UA =</b>	<b>11</b>	<b>7</b>
<b>US =</b>	<b>32</b>	<b>22</b>

# Overview on FP 7 Transport (Galileo) and Space (GMES) success stories in Baltic's



Lithuania	Latvia	Estonia
<b>Transport (GALILEO)</b>		
<b>SHERPA</b> (State Enterprise Oro Navigacija)		<b>SHERPA</b> (Estonian Air Navigation Services Ltd)
<b>CoSuDEC</b> (Amber route, UAB)		
<b>Space (GMES)</b>		
<b>MyOcean &amp; MyOcean2</b> (Center of Marine Research & Aplinkos Apsaugos Agentura)	<b>MyOcean &amp; MyOcean2</b> (Latvia University)	<b>MyOcean &amp; MyOcean2</b> (Tallinna Tehnikaliskool)
<b>COSMOS &amp; COSMOS+</b> (Riga Technical University)	<b>COSMOS &amp; COSMOS+</b> (Riga Technical University)	<b>COSMOS &amp; COSMOS+</b> (Archimedes Foundation)
<b>NordicBaltSat</b> (Kauno Technologijos Universitetas)	<b>NordicBaltSat</b> (Ventspils High Technology Park )	<b>NordicBaltSat</b> (Enterprise Estonia *; Invent Baltics OÜ)
<b>geoland2</b> (UAB Aerogeodezijos institutas)	<b>DESICOS</b> (Riga Technical University)	<b>ESAIL</b> (Tartu Observatory)
<b>SubCoast</b> (Lietuvos geologijos tarnyba)		

# Overview on FP 7 Transport (Galileo) and Space (GMES) success stories in Baltic's



<http://www.nordicbaltSAT.eu/doc>  
**NordicBaltSat**

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### Deliverables

Attachment	Size
NBS_ELLP_Catalogue_ISSN.pdf	18.44 MB
SAAP_09_01_2012.pdf	7.6 MB
Space Business Training Workbook for entrepreneurs.pdf	14.92 MB
Space Governance Training Workbook for decision makers.pdf	18.33 MB
Session_1.zip	43.83 MB
Session_2.zip	37.95 MB
Keynote_Speakers.zip	303.79 MB
Day2.zip	108.07 MB
JTP v2 report feb2012 - final to SESAM.pdf	3.07 MB



Ideexpress

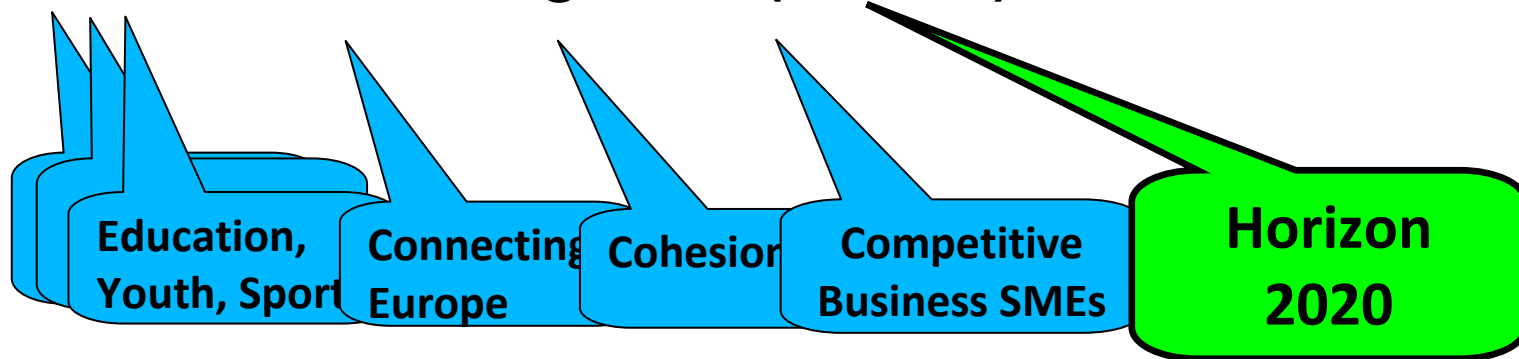
# HORIZON 2020

the EU framework programme for  
research and innovation



# The Multiannual Financial Framework 2014-2020: *Commission's proposals of 29 June 2011*

## 1. Smart & inclusive growth (€491bn)



- 2. Sustainable growth, natural resources (€383bn)
- 3. Security and citizenship (€18.5bn)
- 4. Global Europe (€70bn)
- 5. Administration (€62.6bn)

**Total:  
€ 1,025bn**

# What is Horizon 2020

- Commission proposal for a 80 billion euro research and innovation funding programme (2014-20)
- Part of proposals for next EU budget, complementing Structural Funds, education, etc.
- A core part of Europe 2020, Innovation Union & European Research Area:
  - **Responding to the economic crisis** to invest in future jobs and growth
  - **Addressing peoples' concerns** about their livelihoods, safety and environment.
  - **Strengthening the EU's global position** in research, innovation and technology

# What's new

- **A single programme** *bringing together three separate programmes/initiatives\**
- **More innovation**, *from research to retail, all forms of innovation*
- **Focus on societal challenges** *facing EU society, e.g. health, clean energy and transport*
- **Simplified access**, *for all companies, universities, institutes in all EU countries and beyond.*

*\*The 7th research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)*



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# Three priorities:

Excellent science

Industrial leadership

Societal challenges

# Priority 1 Excellent science

- **Why:**
- World class science is the foundation of tomorrow's technologies, jobs and wellbeing
- Europe needs to develop, attract and retain research talent
- Researchers need access to the best infrastructures

## Proposed funding (million euro, 2014-20)

European Research Council <i>Frontier research by the best individual teams</i>	13 268
Future and Emerging Technologies <i>Collaborative research to open new fields of innovation</i>	3 100
Marie Curie actions* <i>Opportunities for training and career development</i>	5 752
Research infrastructures (including e-infrastructure) <i>Ensuring access to world-class facilities</i>	2 478

# Priority 2 Industrial leadership

- **Why:**
- Europe needs more innovative SMEs to create growth and jobs
- Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors
- Europe needs to attract more private investment in research and innovation

## Proposed funding (million euro, 2014-20)

Leadership in enabling and industrial technologies ( <i>ICT, nanotechnologies, materials, biotechnology, manufacturing, space</i> )	13 781
Access to risk finance <i>Leveraging private finance and venture capital for research and innovation</i>	3 538
Innovation in SMEs <i>Fostering all forms of innovation in all types of SMEs</i>	619

# Priority 3 Societal challenges

- **Why:**
- EU policy objectives (climate, environment, energy, transport etc) cannot be achieved without innovation
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
- Promising solutions need to be tested, demonstrated and scaled up



## Proposed funding (million euro, 2014-20)

Health, demographic change and wellbeing	8 028
Food security, sustainable agriculture, marine and maritime research & the bioeconomy	4 152
Secure, clean and efficient energy*	5 782
Smart, green and integrated transport	6 802
Climate action, resource efficiency and raw materials	3 160
Inclusive, innovative and secure societies	3 819

\*Additional €1 050m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.

# Broader access

- For **SMEs** - *dedicated SME projects to address societal challenges and enabling technologies*
- For all **regions** – *tailored support to policy learning, twinning, networking, complementing Structural Funds*
- For **international partners** – *broad access to Horizon 2020 (“mainstreaming”), strategic initiatives where there is mutual benefit*
- For **all forms of innovation** - *social innovation, services, pilots, stimulating demand through public procurement, standard setting*

# Next steps

- From 30/11:** Parliament and Council negotiations on the basis of the Commission proposals
- Ongoing:** Parliament and Council negotiations on EU budget 2014-20 (including overall budget for Horizon 2020)
- Mid 2012:** Final calls under 7th Framework Programme for Research to bridge gap towards Horizon 2020
- By end 2013:** Adoption of legislative acts by Parliament and Council on Horizon 2020
- 1/1/2014:** **Horizon 2020 starts; launch of first calls**



# Space related research supported by EC 7th Framework Programme, Baltic's overview

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[Kaspars.kalnins@sigmanet.lv](mailto:Kaspars.kalnins@sigmanet.lv)

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