



**International
Information Day & Brokerage Event
for the 5th Call Space in FP7
Riga, 18th - 19th July 2011**

**Space Relevant Topics in FP7
Environment and Research Infrastructures
2012 Calls**

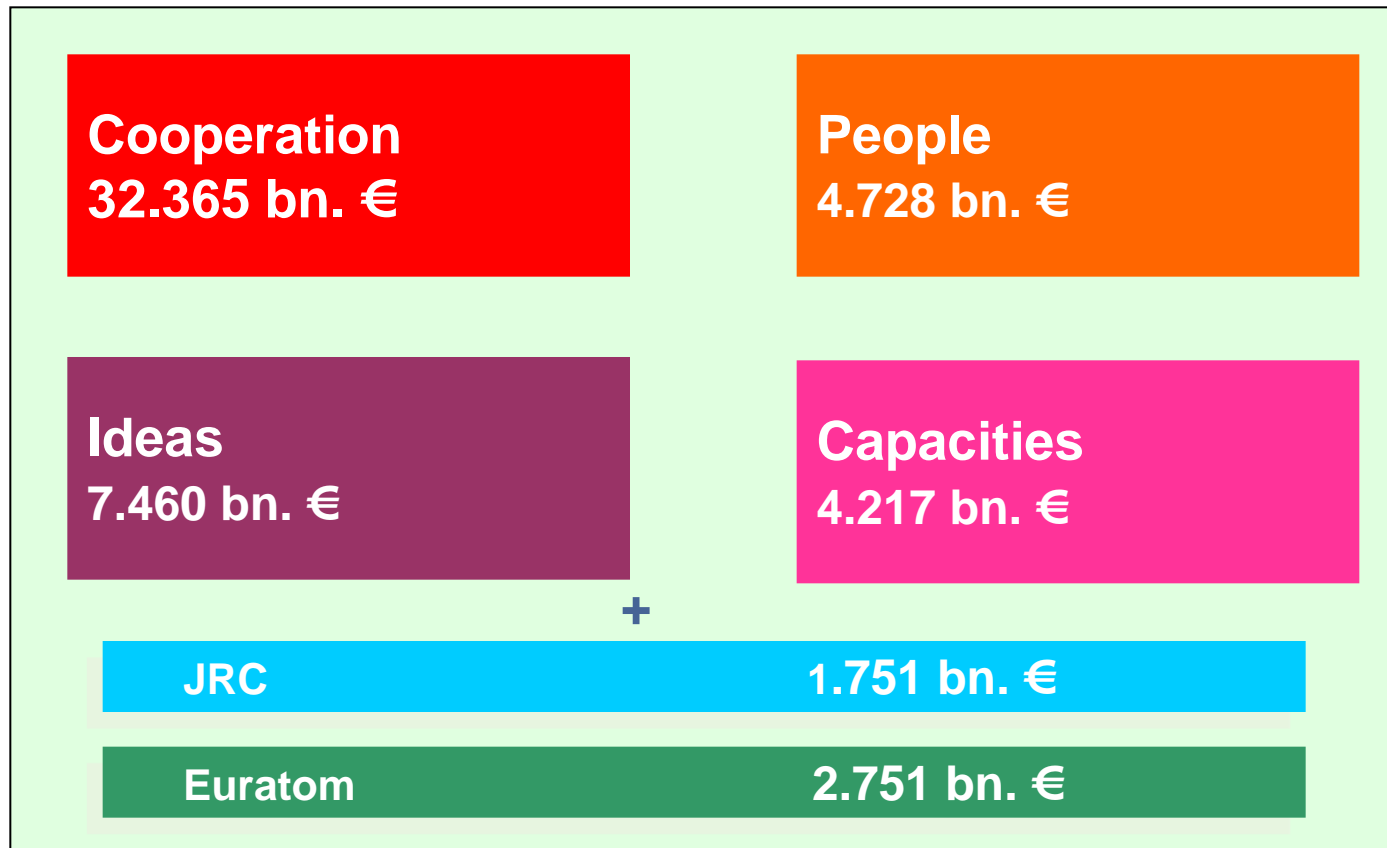
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Space Relevant Topics in the FP7 Environment 2012 Work Programme

- ✓ *Environment in FP7*
- ✓ *Structure of the 2012 Environment Work Programme*
- ✓ *Earth Observation (EO) in the 2012 Environment Work Programme*

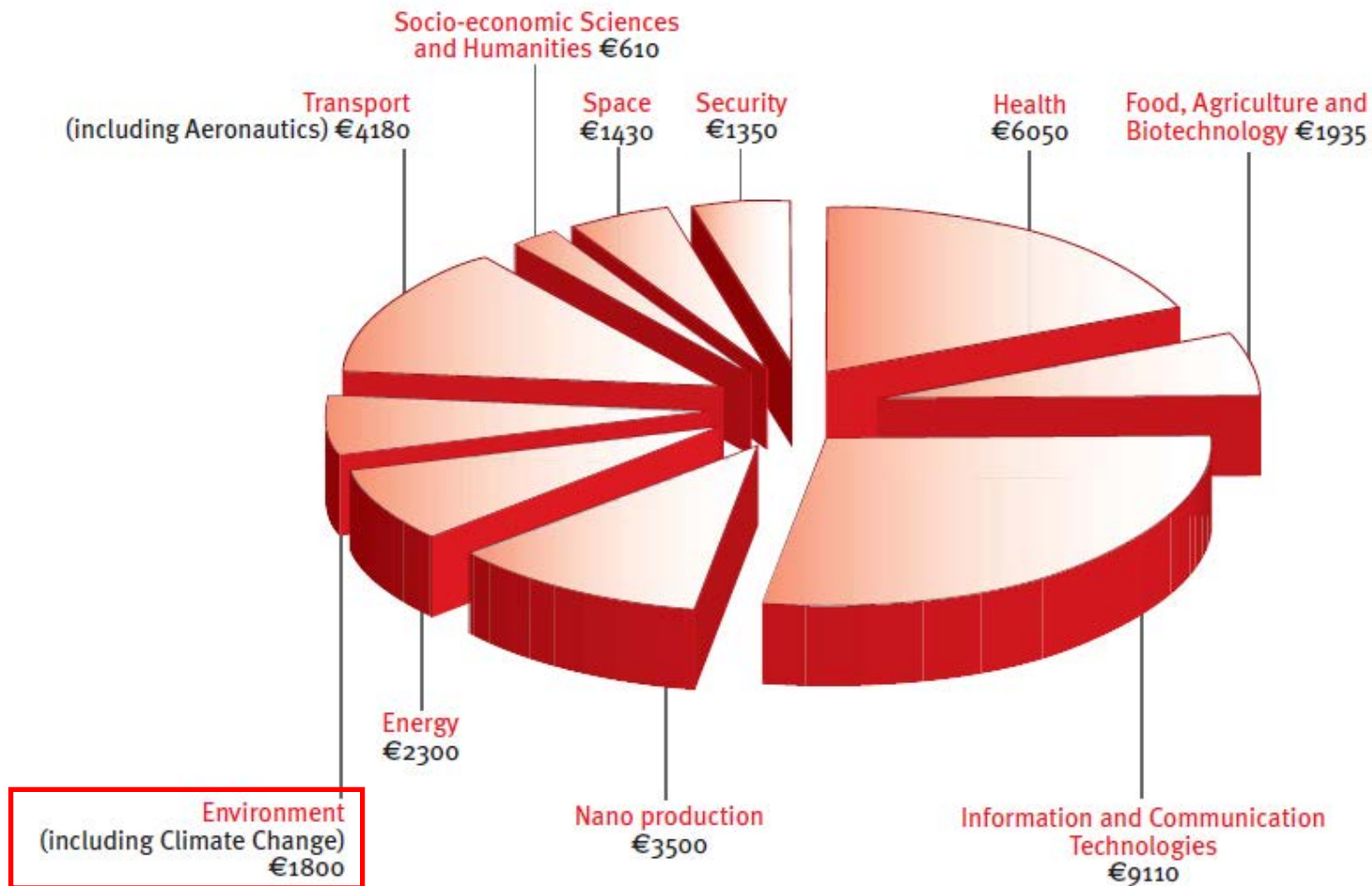
Environment in FP7

- FP7 = The 7th Framework Programme for Research and Technological Development
- Runs from 2007-2013 with a total budget: € 50.5 billion



Environment in FP7

- Cooperation: total budget € 32.4 billion
- Environment as one of 10 Thematic Priorities with € 1.8 billion



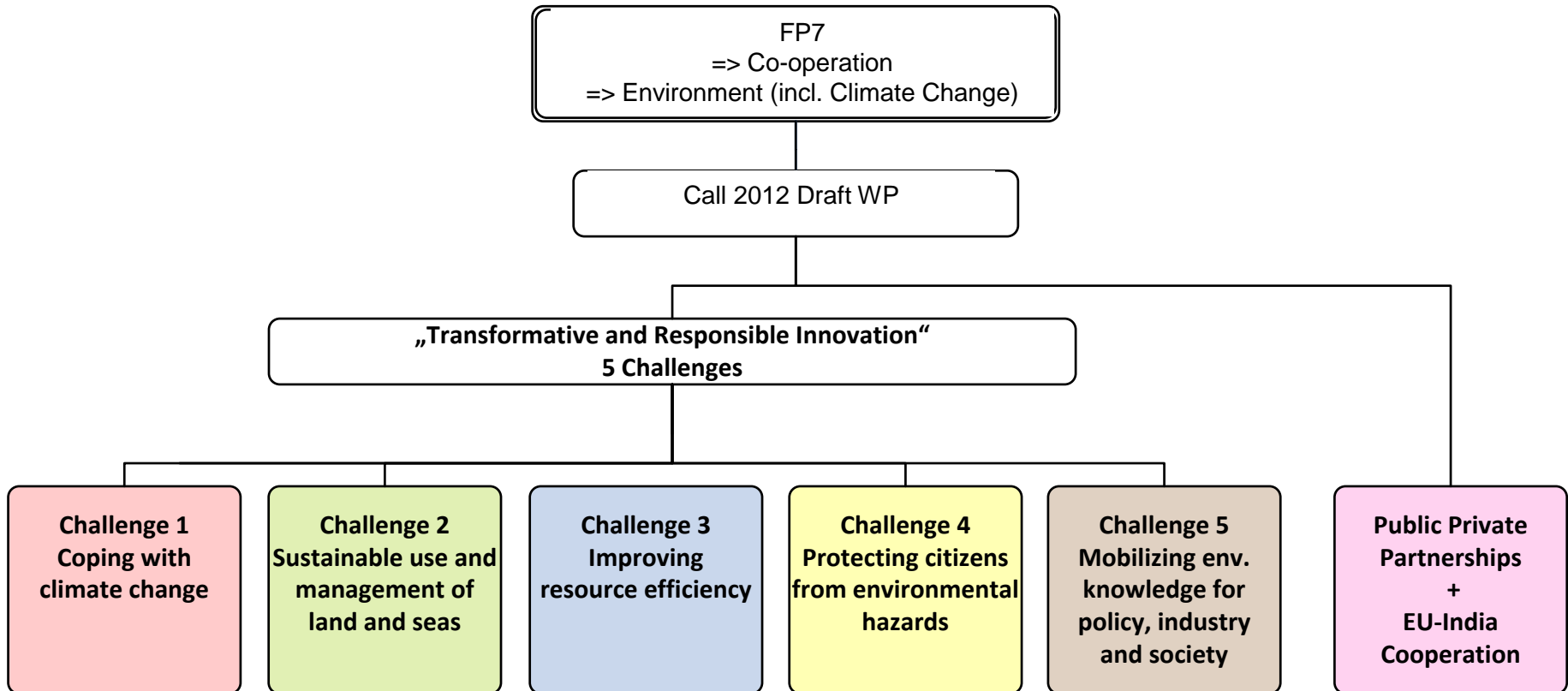
amounts given in € 100,000

Approach and Specific Objectives

WP 2012 Environment

- ✓ **Flagship Initiatives on Innovation Union and Resource Efficiency** - resource-efficient, low-carbon economy
- knowledge for **societal challenges** - climate change, biodiversity loss, land and sea management and resource efficiency
- **innovation** (environmental technologies) and new business models, eco-design, services, innovation in policy, governance and consumption behaviour
- **Knowledge transfer**, assessment, uptake and exploitation of scientific data/results and innovative tools/services - ecosystem services and *earth observation systems*

Structure of Environment Call 2012 Work Programme



New Features of Environment Call 2012 Work Programme

- New innovation-oriented funding → increased participation of SMEs and implementation of demonstration projects
- Very broad-range calls in terms of topics → scientists are called upon to determine the depth of work and the budget themselves
- Several projects will be funded per topic → later in terms of content be coordinated in a cluster process

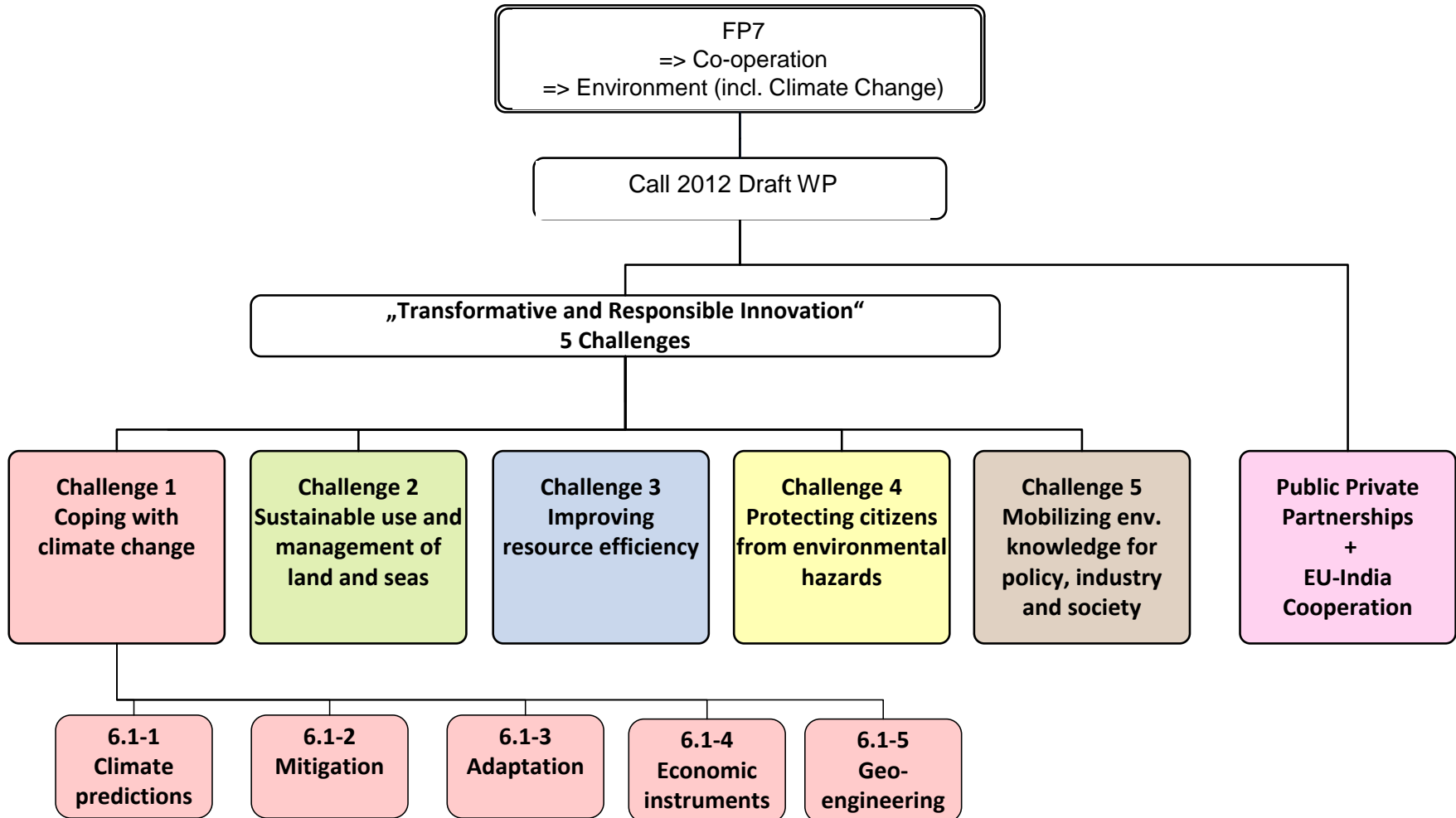
FP7-ENV-2012-one-stage call

- **Opening of the Calls:** 20 July 2011
- **Single-stage submission procedure - full proposal**
 - Deadline 20 October 2011
 - Instruments:
 - Collaborative projects up to 3 Mio. € EU contribution
 - Coordination and support action up to 1 Mio. € EU contribution
 - Evaluation criteria
 - Scientific and technical quality – **3/5**
 - Quality of the implementation – **3/5**
 - Expected impact – **3/5**
- **Overall threshold -10/15**

FP7-ENV-2012- two-stage call

- **Opening of the Call:** 20 July 2011
- **Two-stage submission procedure**
 - Submission of a project outline in the first stage (deadline 20 October 2011)
 - Submission of a full proposal in the second stage (deadline 15 February 2012) – only short-listed proposals
 - Instruments:
 - Collaborative Projects up to 3 Mio./ 6 Mio. / 9 Mio. € EU-contribution
 - Evaluation criteria
 - Scientific and technical quality (stage 1 & 2) - **4/5**
 - Quality of the implementation (stage 2) - **3/5**
 - Expected impact (stage 1 & 2) - **3/5**
 - **Stage 1 overall threshold - 8/10**
 - **Stage 2 overall threshold - 11/15**

Earth Observation in the 2012 Environment Work Programme - Challenge 6.1



Challenge 6.1

Coping with climate change (55 Mio. €)

ENV.2012.6.1-1 Seasonal-to-decadal climate predictions towards climate services

Call: FP7-ENV-2012-two-stage (one or more proposals can be selected)

Objectives: **Development of reliable climate services:** i) Improved understanding of critical processes on different levels; ii) Consideration of trends, interactions, feedbacks, long range effects and thresholds within earth climate system / subsystem.

Research content:

- Focus on specific key problems / uncertainties
- Quantifying of effects of climate change / variability on regional / local level; assessment of vulnerability of society, economy and eco systems
- **Integration of existing data (instrumental, Earth Observation, proxy data), field research for data acquisition, focus on research gaps possible**
- **Increasing accuracy of seasonal to decadal climate prediction (regional/local)**
- Involvement of stakeholders/decision makers as well as non-EU initiatives recommended

Funding Scheme: Collaborative Project

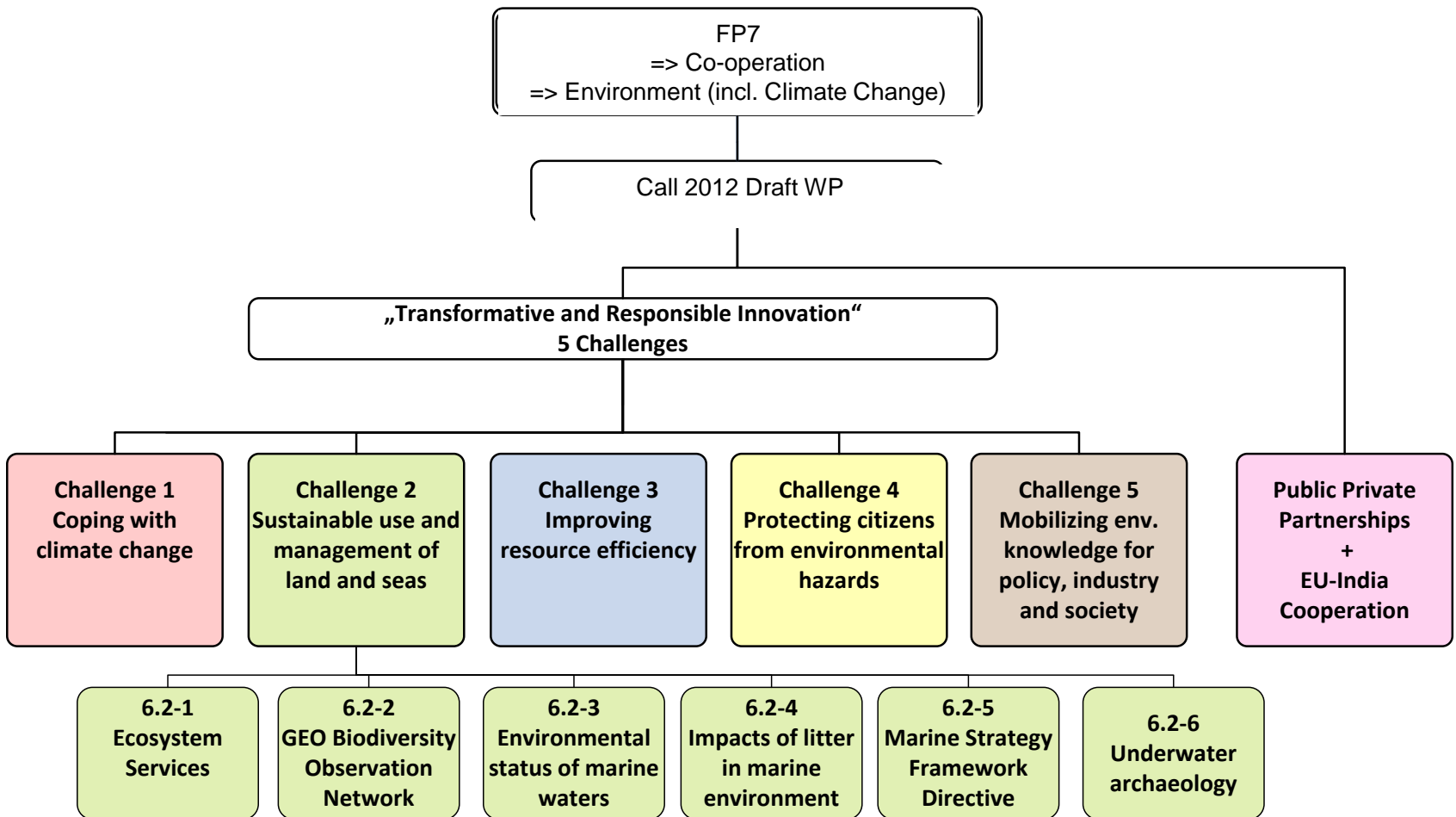
Max. 9 Mio. € EU funding

Expected impact:

- (i) Improvement of societal resilience against effects of climate change; adaption to climate risks; reduction of costs / emergency measures
- (ii) Preparation of a market for climate services, new business fields for SMEs
- (iii) Contribution to Global Framework for Climate Services of WMO

Note: Funded projects will be connected by a coordination and support action

Earth Observation in the 2012 Environment Work Programme - Challenge 6.2



Challenge 6.2

Sustainable use and management of land and seas (45 Mio. €)

ENV.2012.6.2-2 Assessing global biological resources: the European contribution to the Global Earth Observation Biodiversity Observation Network (GEO BON) – two-stage

Objectives: **Implementing GEO Biodiversity Observation Network (GEO BON)**, Europ. contribution to assessment of global biological resources (terrestrial, limnic, marine ecosystems)

Research topics:

- **Integration of national, European and global long-term measurement and data resources in GEO-BON** (e.g. LTER-Europe, UNEP-WCMC, IUCN Red List, GBIF)
- Provision of standardized biodiversity data/knowledge; **filling out of taxonomic gaps using remotely-sensed**, in-situ and collection-based observations
- Estimation of changes affecting the stock and nature of biological resources by modeling distributions of species and their sensitivity to, environmental changes
- Observation and monitoring protocols to assess long-term status and trends in biodiversity

Funding Scheme: Collaborative Project

Max. 9 Mio. €, up to one proposal

Expected impact:

- Global system of in-situ marine and terrestrial observations, integrated with remote sensing measurements, for the monitoring and assessment of global biological resources**
- Transnational co-operation supporting the development of national BON's in Europe
- Strengthened knowledge on global biological resources (biodiversity, climate and ecosystem); reduced risk from biological invasion; improved biodiversity data interoperability; support of UN Convention on Biological Diversity (UN CBD).

Note: min. 15% EU funding to SMEs

Challenge 6.2

Sustainable use and management of land and seas (45 Mio. €)

ENV.2012.6.2-3 Innovative Tools for Understanding and Assessing Good Environmental Status (GES) of Marine Waters ("The Ocean for Tomorrow") two-stage

Objectives: **Support to fulfill the Marine Strategy Framework Directive (MSFD)** → achieve a good environmental status (GES) of marine waters

Research content:

- a) improved understanding of the impact of human activities and variations associated to climate on marine biodiversity
- b) Test and development of indicators for assessment and characterization of the marine waters at several ecological levels (species, habitat, ecosystems)
- c) Development of innovative integrative operational modeling tools to strengthen understanding of ecosystem and biodiversity change in space and time**

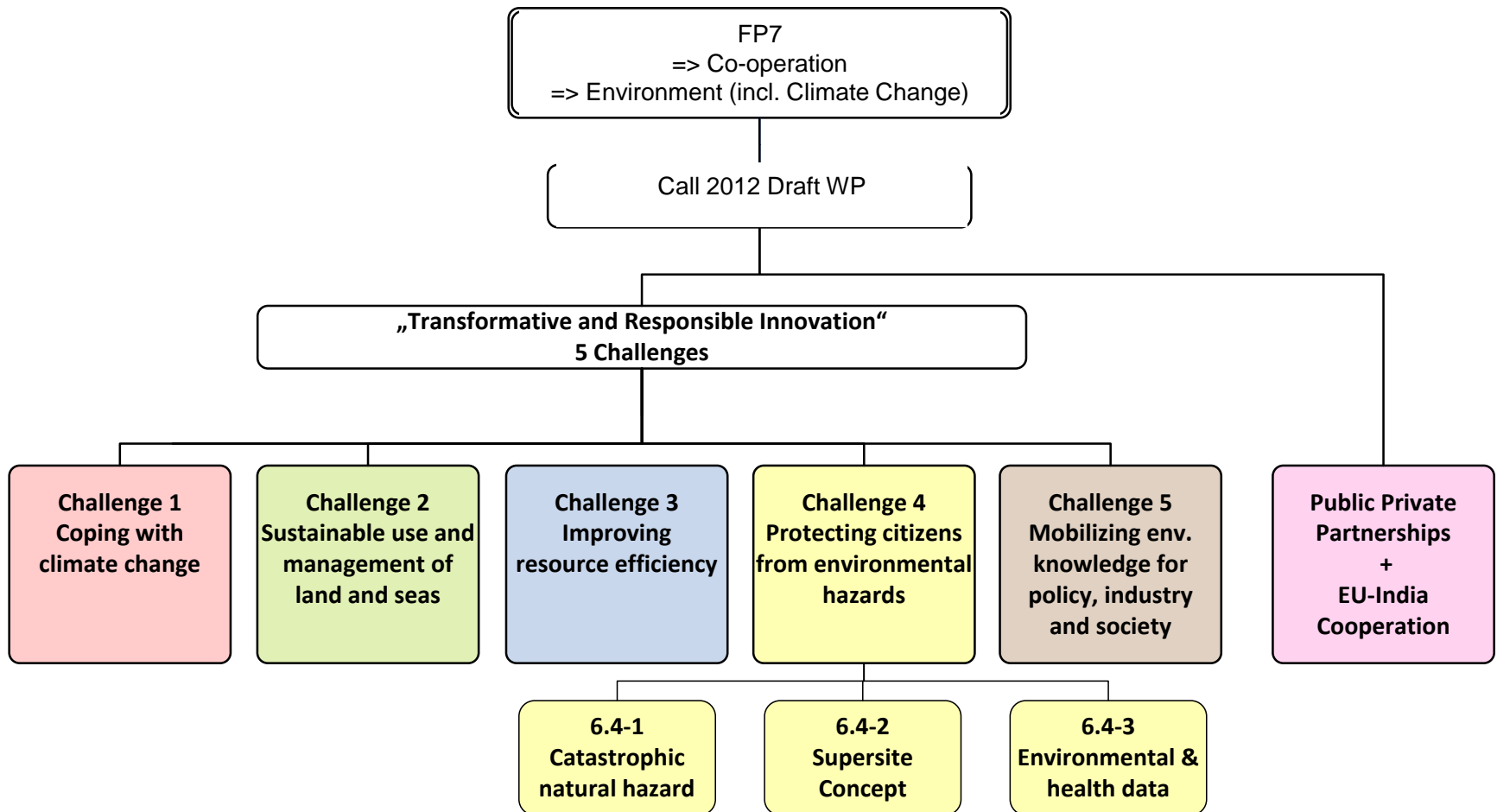
Funding Scheme: Collaborative Project

Max. 6 Mio. € (SMEs encouraged), 1 Project

Expected impact:

- (i) Implementing MSFD and the Commission decision on Good Environmental Status (GES) of marine waters
- (ii) Promote EU-wide harmonisation in the environmental status classification of the marine waters
- (iii) Sustainable management of seas and oceans resources
- (iv) Innovation on the field of marine environment monitoring tools**

Earth Observation in the 2012 Environment Work Programme - Challenge 6.4



Challenge 6.4

Protecting citizens from environmental hazards (42 Mio. €)

ENV.2012.6.4-1 Improving the resilience of society to catastrophic natural hazards through new risk-management partnerships - two-stage

Objectives:

Strengthening the economic and societal resilience in Europe in the event of extreme natural hazards (**weather / Geo-Hazards**)

Research content:

- Improvement of disaster preparedness as well as impact mitigation by developing new management schemes and assessment methods
- Development of potential disaster scenarios for improving the risk assessment
- Improvement respectively redefining of the respective roles or partnerships between private sector ((re-)insurance and finance sectors), the relevant authorities and stakeholders

Funding Scheme: Collaborative Project

Max. 6 Mio. € per project, > 1 project

Expected impact:

- (i) Contribution to a new pan-European harmonised risk assessment scheme
- (ii) Elaboration of a new risk management governance approach (Implementation of EU Directive „Hyogo framework for action 2005-2015)

Challenge 6.4

Protecting citizens from environmental hazards (42 Mio. €)

ENV.2012.6.4-2 Long-term monitoring experiment in geologically active regions of Europe prone to natural hazards: the Supersite concept - two-stage

Objectives:

Support of the „Supersite“ initiative → long-term monitoring and study of European reference sites located on land in high-risk seismic and volcanic areas and their associated landslide zones:

- Choice of „suitable“ Supersite Geo-Hazard regions
- Reinforcement of existing networks as well as development and establishing of new in-situ sensors / instrumentation
- Aggregating space and ground-based observations as well as geophysical monitoring**
- Running a pilot phase „Supersite Demonstrator“

Funding Scheme: Collaborative Project

Max. 6 Mio. € per project, > 1 project,
Industry involvement

Expected impact:

- Increased European technical know-how for the monitoring of geological disasters
- Increased communication / coordination between national, regional and global communities and clarification of roles and responsibilities
- Build a Global Earth Observation System of Systems while making a significant European contribution to the GEO 2012-2015 Work Plan.**

Challenge 6.4

Protecting citizens from environmental hazards (42 Mio. €)

ENV.2012.6.4-3 Integrating environmental and health data to advance knowledge of the role of environment in human health and well-being in support of a European exposome initiative - two-stage

Objectives:

Assessment of the effect of environmental influences on individual health risks.

Research content:

• **Linking / integration of environmental data (remote sensing, GIS, spatial, etc.) with health data and information / health status of the population and application to population studies (new concept: „exposome“)**

Funding Scheme: Collaborative Project

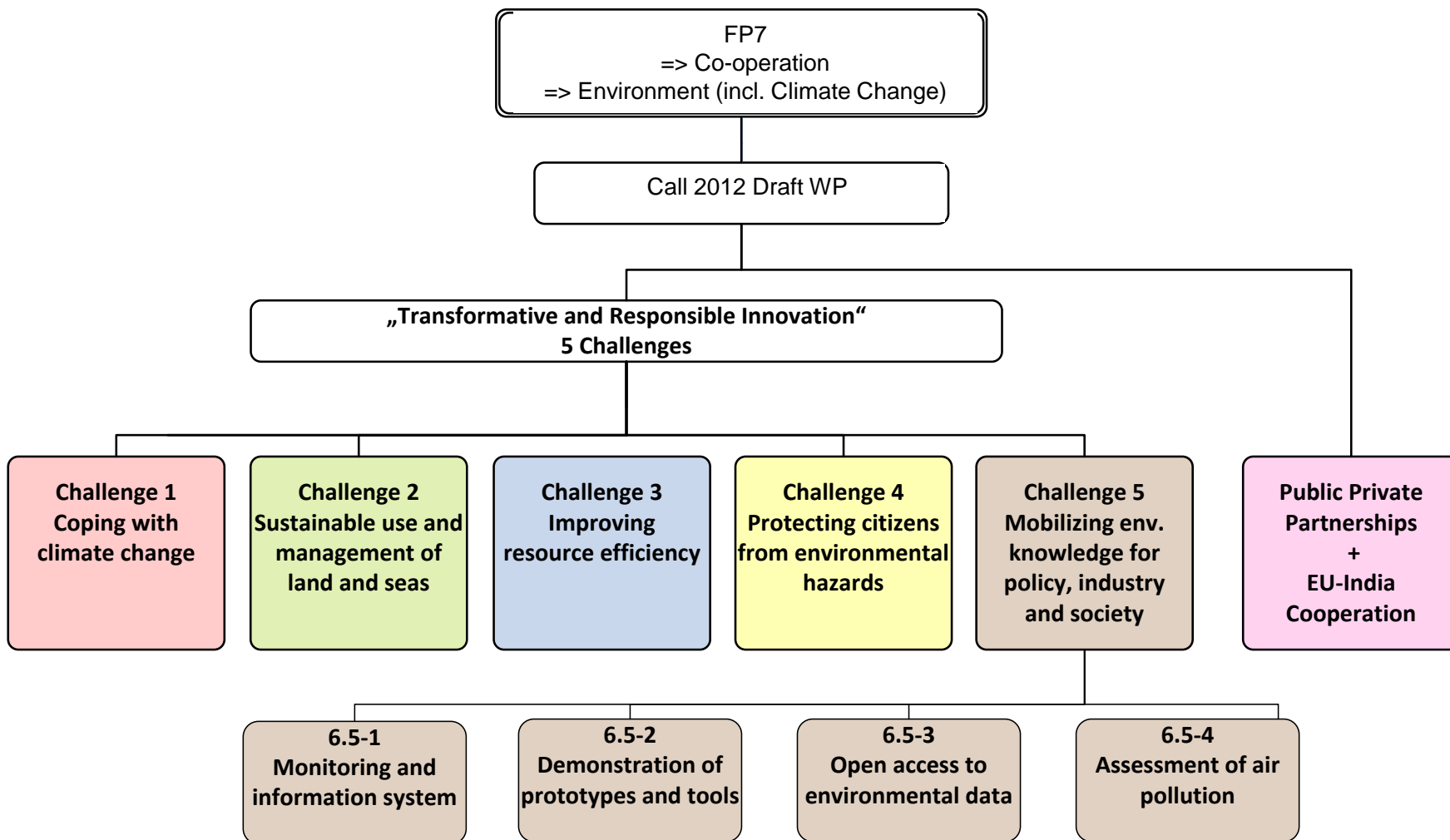
Max. 9 Mio. € per project, ≥ 1 project

Expected impact:

- (i) Reduction of uncertainty in risk assessments of chemicals
- (ii) Improvement of preventive strategies to lower health costs
- (iii) Creation of new business sectors for SMEs

Specific feature: a coordination mechanism of funded projects is foreseen.

Earth Observation in the 2012 Environment Work Programme - Challenge 6.5



Challenge 6.5

Mobilising environmental knowledge for policy, industry and society (41 Mio. €)

ENV.2012.6.5-1 Developing community-based environmental monitoring and information systems using innovative and novel earth observation applications - two-stage

Objectives:

Developing environmental monitoring and information systems using earth observation applications ("citizens' observatories")

Research topics:

- **Development of highly innovative monitoring technologies, (e.g. low-cost reliable micro-sensors), for portable devices**
- **Pilot case studies and acceptance activities to test, demonstrate and validate the concept of "citizens' observatories"**

Funding Scheme: SME-targeted Collaborative Project

Max. 9 Mio. € per Project, > 1 Project

(≥30% SME participation)

Expected impact:

- (i) Empowerment of citizens to contribute to environmental governance processes (transparency, knowledge management, accountability and responsiveness)
- (ii) Provision of models for decision-makers
- (iii) **Establish common methodologies and standards for data archiving, discovery and access within the GEOSS framework**



Thank you for your attention!

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