

# **FP7 2012 Work Programme International Dimension Opportunities for Korea**

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# FP7 Work Programmes

- Legal basis for the implementation of FP7
- Contain full information on the calls for proposals to be published in 2011-2012
  - Details of topics and expected impacts, budgets and timing of calls etc
- Work programme of actions of over €8 billion, including:
  - 39 calls issued on 20 July 2011 with budget of €5.31 billion
  - Additional 15 calls for €1.74 billion to be issued in 2011-2012
  - Other non-call activities also included



- All topics open for Korean participation
- Two major calls – 20 July (€654 million)
- Research priorities:
  - Major focus on: ageing, including health systems, medical technologies, rare diseases
  - Other areas covered: personalised medicine, availability of organs for replacement, better understanding of ageing, chronic diseases related to ageing, adapting healthcare to specific needs
- Strong emphasis on SMEs and medical technologies sector
- Supporting Pilot Initiative on Active and Healthy Ageing and the ongoing Innovative Medicines Initiative PPP

- All topics open for Korean participation
- One call - 20 July (€304.57 million)
- Research Priorities
  - Sustainable primary production; mitigating and adapting to climate change
  - Low carbon and resource efficient industry
  - Food security and safety for Europe and beyond
  - Socially inclusive and healthy Europe
- Calls have an emphasis on
  - Completing ERA
  - Linking existing and new initiatives for the bio-based economy
  - Stimulating innovation including knowledge transfer
  - Supporting European policies (CAP, CFP, Key Enabling Technologies etc)
  - Supporting international initiatives (eg. Millenium Development Goals)

- Three ICT Calls - Call 8 (20 July; €787 million), Call 9 (18 January; €291 million), Call Future Internet (18 May; €80 million)
- Three Cross-thematic calls - Factories of the Future (20 July; 160 million); Energy-Efficient Buildings (20 July; 140 million); ICT for Green Cars (20 July; €330 million)
- FET call - still open for proposals
- Extension of 2011 work programme
- Focus around number of key challenges:
  - pervasive and trusted network and service infrastructures
  - cognitive systems and robotics
  - alternative paths to components and systems
  - technologies for digital content and languages
  - ICT for health, ageing well, inclusion and governance
  - ICT for a lower carbon economy
  - ICT for manufacturing & factories of the future
  - ICT for learning and access to cultural resources
- Support also for Future and Emerging Technologies (FET)



# ICT – Interest for Korea

- All topics open for Korea participation
- Topics of particular interest may include:
  - Future networks - international partners targeted for support actions **[Topic: ICT-2011.1.1]**
  - Future internet research and experimentation - cooperation with industrialised countries/emerging economies **[Topic: ICT-2011.1.6]**
  - Challenging current thinking - actions aiming to strengthen the international dimension of FET **[Topic: ICT-2011.9.1]**
  - International cooperation on FET research **[Topic: ICT-2011.9.4]**
  - FET Proactive - Dynamics of Multi-level complex systems, unconventional computation, and neuro-bio-inspired systems - global alliances **[Topic: ICT-2011.9.7] [Topic: ICT-2011.9.6] and [Topic: ICT-2011.9.11]**



- Four calls - 20 July, €292.5 million
- Three cross-thematic calls - Factories of the Future, Energy Efficient Buildings, and Green Cars - 20 July (€335 million)
- Focus on smart and sustainable growth for a greener industry
- Challenges addressed include:
  - Energy and energy efficiency
  - Environmental issues and sustainability
  - Raw materials
  - Health and safety
  - Factories of the future
  - European energy-efficient buildings
  - Green cars



# NMP Interest for Korea

- All topics open for Korean participation
- Topics of particular interest may include:
  - Total safety management for industrial organisations - international cooperation welcomed **[Topic: NMP.2012.3.0-2]**
  - Support for standardisation needs - international cooperation welcomed **[Topic: NMP.2012.4.0-2]**
  - Advanced magnetic materials - international cooperation welcomed **[Topic: NMP.2012.4.1-3]**
  - Adaptive production systems and measurement and control equipment for optimal energy consumption and near-to-zero emissions in manufacturing processes - international cooperation with IMS member countries, including Korea, encouraged **[Topic: FoF.NMP.2012.1]**



- Three calls - 20 July - €262 million
- Focus on the implementation plans and road maps of the European Strategic Energy Technology Plan (SET-Plan)
- Aim to accelerate market take up of most promising technologies in:
  - Solar
  - Wind
  - Bioenergy
  - Smart grids
  - Carbon Capture and Storage (CCS)
  - Smart cities



# Energy Interest for Korea

- All topics open for Korean participation
- Topics of particular interest may include:
  - Impact of the quality of CO<sub>2</sub> on transport and storage - targeted at Korea and other CSLF members [**Topic: ENERGY.2012.5.2.1**]



# Environment

- Two calls - 20 July - €255 million
- Focus on five challenges for resource efficiency and climate resilience:
  - Coping with climate change
  - Sustainable use and management of land and seas
  - Improving resource efficiency
  - Protecting citizens from environmental hazards
  - Mobilising environmental knowledge for policy, industry and society
- Most topic areas are evaluated through a two-stage process
- Emphasis on innovation
- All topics open to international participation



# Environment Interest for Korea

- All topics open for Korean participation of
- Topics of particular interest, all of which encourage international cooperation, may include:
  - Development of advanced techno-economic modelling tools for assessing costs and impacts of mitigation policies [Topic: ENV.2012.6.1-2]
  - Strategies, costs and impacts of adaptation to climate change [Topic: ENV.2012.6.1-2]
  - Operational potential of ecosystems services and natural capital for sustainable land, water and urban management - international collaboration encouraged [Topic: ENV.2012.6.2-1]



- Seven calls to be published on 20 July
  - Aeronautics (three calls - €145 million)
  - Surface Transport (one call - €114 million)
  - Horizontal issues (two calls - €36 million)
  - Cross-thematic (one call - €35 million)
- Three strategic research and innovation priorities for 2012:
  - Eco-innovation
  - Safe and seamless mobility
  - Competitiveness through innovation

# Transport Interest for Korea

- All topics open for Korean participation
- Topics of particular interest may include:
  - Fostering innovation for trans-national transport research cooperation - experiences from other industrialised countries encouraged **[Topic: TPT.2012.3-1]**
  - Aircraft safety - 6 topics - international cooperation encouraged **[Area: AAT.2012.1.3.3]**
  - Operational safety - 4 topics - international cooperation encouraged **[Area: AAT.2012.1.3.4]**



# Socio-Economic Sciences and the Humanities (SSH)

- Two calls - 20 July - €87 million
- Four priorities for 2012 work programme:
  - The Innovation Union in support of smart growth
  - Inclusive and sustainable growth
  - Reshaping the European economy and strengthening the political unity of the EU
  - Support for developing the external policies of the EU
- International cooperation strongly encouraged in all topics and challenges in 2012



- One call - 20 July - 84 million
- Focus in 2012:
  - The development of GMES
    - (Pre)-operational validation of GMES services and products
    - Support to the coordinated provision of observation data
    - Development of earth observation satellites
  - Strengthening the foundations of space S&T
    - Research to support space science and exploration
    - Research to support space transportation and key technologies
  - Cross-cutting activities

# Space interest for Korea

- All topics open for Korean participation
- Topics of particular interest may include:
  - Support for emergency response management - should target areas inside or outside of Europe [Topic: SPA.2012.1.1-04]
- Or the following topics targeted to countries with an EU S&T Cooperation Agreement
  - GMES Climate change - data archiving and exchange [Topic: SPA.2012.1.3-03]
  - Exploitation of space science and exploration data [Topic: SPA.2012.2.1-01]
  - Key technologies enabling observations in and from space [Topic: SPA.2012.2.2-01]
  - Key technologies for in-space activities [Topic: SPA2012.2.2-02]



- One call - 20 July - €241.7 million
- Seven activity areas:
  - Security of citizens
  - Security of infrastructures and utilities
  - Intelligent surveillance and border security
  - Restoring security and safety in case of crisis
  - Security systems integration, interconnectivity and interoperability
  - Security and society
  - Security research coordination and structuring

# Security Interest for Korea

- All topics open for Korean participation
- Topics of potential interest, all of which call for international cooperation, include:
  - Drinking water security management and mitigation against CBRN contamination [Topic: SEC.2012.1.5-02]
  - Countering illegal export of metal-bearing waste [Topic: SEC.2012.2.2-1]
  - Air traffic management/control threat assessment [Topic: SEC.2012.2.2-2]
  - Improving security in air cargo transport [Topic: SEC.2012.2.2-3]
  - Aviation security - reducing costs and facilitating passenger flows [Topic: SEC.2012.2.2-4]
  - Security of supply chain [Topic: SEC.2012.2.4-1]
  - Development of mobile laboratories/facilities for rapid assessment of CBRN events [Topic: SEC.2012.4.4-1]
  - Use of communication/social media in crises [Topic: SEC.2012.6.1-3]



# Research Infrastructures

- One call - 20 July - €90 million
- Last call in FP7, call budget to be supplemented in 2013
- Main lines of action:
  - Support to existing research infrastructures
  - Support to new research infrastructures/major upgrades
  - Support for policy development/programme implementation
- All topics open for Korean participation



# Research Infrastructures – Interest for Korea

- All topics open for Korean participation
- Topics of particular interest may include:
  - Coordination actions, conferences and studies supporting policy development, including international cooperation, for e-Infrastructures **[Topic:INFRA-2012-3.3]**
  - Biological Resources Centres for micro-organisms - global approach **[Topic:INFRA-2012-1.1.6]**
  - Experimental facilities for animal disease infectiology - global approach **[Topic:INFRA-2012-1.1.7]**
  - Plant Genetic Resources Centres - global approach **[Topic:INFRA-2012-1.1.10]**



# Science in Society

- One call - 20 July - €37.4 million
- Focus on enabling responsible research and innovation (RRI) in the European Research Area
- All topics open for Korean participation
- Topics calling for international cooperation, which may be of potential interest include:
  - International coordination in RRI [\[Topic:SiS-2012.1.2.1-1\]](#)
  - Scientific data: open access, dissemination, preservation and use [\[Topic:SiS-2012.1.3.3-1\]](#)

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# International Cooperation

- Two calls - 20 July - €32 million
- Focus on
  - Bi-regional cooperation for addressing societal challenges, supporting policy dialogue and developing cooperation in innovation (INCO-NET)
    - Targeted at: sub-Saharan Africa, Latin America and Caribbean, Mediterranean Partner Countries, South East Asian Countries
  - Bilateral coordination for the enhancement and development of S&T partnerships (BILAT)
    - Targeted at Australia, Brazil, China, India, New Zealand, Russia, South Africa, **South Korea**, USA and Argentina, Chile, Jordan, Mexico, Morocco, Ukraine



# International Cooperation - BILAT

- Activities to include:
  - Supporting EU-Korean institutional dialogue
  - Promoting FP and bilateral cooperation, joint activities etc
  - Monitoring progress in bilateral S&T cooperation
  - Supporting FP Contacts
  - Analysing innovation measures, national innovation systems, framework conditions for research and innovation
  - Promoting twinning of research organisations
  - Studying feasibility of establishing a joint European liaison office



# Ideas Programme

- The European Research Council (ERC) – first pan-European funding organisation for frontier research
- ERC grants are awarded, to attract or repatriate to Europe, early-career and senior top researchers, **of any nationality, and their teams**, for five-year projects
- PIs have to conduct their research project in any EU Member State or FP7 associated country (AC) -PIs need to physically spent at least 50% of their time in the MS/AC
- Investigator driven research / bottom-up approach. For all fields of research, from Social sciences and Humanities to Life Sciences and Physical Sciences. No thematic priorities. Scientific excellence is the only criterion for success

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# Ideas Programme

- Grant packages: Starting Grant: up to €2 million / Advanced Grant: up to €3.5 million Starting Grant call - 20 July - €729.98 million / Advanced Grant call - 16 November - €679.98 million
- New Scheme: 'ERC Synergy': will support small groups of Principal Investigators working jointly on similar research projects - Up to €15 million/ grant over 6 years – call publication in October 2011 – for very limited number of projects
- Evaluation: single submission of proposal – 2 stage evaluation, interviews for some ERC schemes



# Ideas Programme

- Applications can be made in any field of research - particular emphasis on the frontiers of science, scholarship and engineering.
- All calls open to researchers of **any nationality** who intend to establish and conduct their research activity in any EU Member State or FP7 associated country
- Starting Grants call - 20 July - €729.98 million
- Advanced Investigator Grants call - 16 November - €679.98 million



# Marie Curie Actions

- Two calls issued on 20 July 2011 (ITN and IRSES), six other from 19 October 2011 until 13 March 2012 - Total budget ca. €900 million;
- Nearly all Marie Curie Actions are open to Korean institutions and researchers;
- The '**World Fellowship**' calls are of particular interest to Korea:
  - **IRSES** (funding eligible for staff exchange for both Korean researchers and institutions located in Korea) - 20 July 2011 - €30 million;
  - **IOF** (for EU MS/AC researchers going to institutions in Korea) - 13 March 2012 - €40 million;
  - **IIF** (for Korean researchers going to institutions in EU MS/AC ) - 13 March 2012 - €40 million.



# Marie Curie Actions – Interest for Korea

**Institutions** located in Korea are eligible in the following actions:

- **IRSES:** International Research Staff Exchange Scheme
- **ITN:** Initial Training Networks;
- **IAPP:** Industry-Academia Partnership and Pathways;
- **IOF:** International Outgoing Fellowships.

**Researchers** from Korea are eligible in all above-mentioned actions (excluding IOF) and in the following actions:

- **COFUND:** Co-funding of Regional, National and International Programmes;
- **IIF:** International Incoming Fellowships;
- **CIG:** Career Integration Grants.

