

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

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COMMISSION

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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



# Participation of China in FP7

- All areas of FP7 open to the participation of China researchers and/or research organisations
- Discussion under EU-China S&T Cooperation Agreement on areas of potential mutual interest
- China is an International Cooperation Partner Country (ICPC)
  - Same rights and obligations for receiving funding as MS
- Consortia must have the minimum required number of MS/AC participants



- 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

# Health – Interest for China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Health Systems and Services – (SICA) [Topic: [HEALTH.2012.3.4-1](#)]
  - Co-infection of HIV/AIDS, malaria, tuberculosis and/or hepatitis [Topic: [HEALTH.2012.2.3.2-3](#)]
  - Co-morbidity between infectious and non-communicable diseases [Topic: [HEALTH.2012.2.3.2-2](#)]
  - Low-cost interventions for disease control in resource poor settings [Topic: [HEALTH.2012.2.3.2-4](#)]
  - Support for the international rare disease research [Topics: [HEALTH.2012.2.4.4.1/2/3](#)]



- 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)

# KBBE – Interest for China (I)

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Insects as novel sources of proteins – SICA [Topic: KBBE.2012.2.3-05 ]
  - EU – China Partnering Initiative on fibre crops – Mandatory China [Topic: KBBE.2012.3.1-03 ]
  - Development and evaluation of scientific methodologies for cost-effective risk-based animal health surveillance [Topic: KBBE.2012.1.3-01]
  - Study on the need for food and health research infrastructures [Topic: KBBE.2012.2.2-02 ]
  - Improving safety and quality of seafood (The Ocean of Tomorrow) (Asian countries encouraged). Cross-thematic with ENV-FAB-ENERGY [Topic: KBBE.2012.2.4-02 ]
  - Strengthening cooperation for global food safety research [Topic: KBBE.2012.2.4-03]



# KBBE – Interest for China (II)

- Other topics:
  - Advocacy and informational material for different media targeting decision makers at different levels and end-users in Africa in the fight against neglected zoonotic diseases [Topic: [KBBE.2012.1.4-03](#) ]
  - Targeted research effort on African swine fever [Topic: [KBBE.2012.1.3-02](#) ]
  - Volatility of agricultural commodity markets [Topic: [KBBE.2012.1.4-05](#) ]
  - Post-market monitoring of GMOs based on epidemiological studies [Topic: [KBBE.2012.2.4-05](#) ]
  - Support to standardisation for bio-based products [Topic: [KBBE.2012.3.3-02](#) ]
  - Development and evaluation of risk-based surveillance models for defining more cost-effective animal health surveillance programmes [Topic: [KBBE.2012.1.3-01](#) ]



- 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 China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - International partnership building and support to dialogues – SICA [Topic ICT-2011.10.3]
  - FET Proactive: Dynamics of Multi-Level Complex Systems (DyM-CS) (USA, Japan and China) [Topic: ICT-2011.9.7]
  - ICT for fully electric vehicles [Topic: GC-ICT-2011.6.8]
  - Challenging current Thinking [Topic: ICT-2011.9.1]
  - International cooperation on FET research [Topic: ICT-2011.9.4]



- 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 China

- All topics open for Chinese participation
- Topics with international cooperation encouraged:
  - Adaptive production systems and measurement and control equipment for optimal energy consumption and near-to-zero emissions in manufacturing processes **[Topic: FoF.NMP.2012-1]**
  - 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]**



- 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 China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Impact of the quality of CO<sub>2</sub> on transport and storage (CSLF countries, in particular the US, Canada and China) **[Topic: ENERGY.2012.5.2.2 ]**
  - Research, development and testing of solar dish systems -Twinning (Programme Level Cooperation) **[Topic: ENERGY.2012.2.5.1]**



# 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 China

- All topics open for Chinese participation
- Topics with international collaboration encouraged:
  - Development of advanced techno-economic modeling 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.2012.6.1-3]**
  - Exploration of the operational potential of the concepts of ecosystem services and natural capital to systematically inform sustainable land, water and urban management **[Topic: ENV.2012.6.2-1]**
  - Long-term monitoring experiment in geologically active regions of Europe prone to natural hazards: the Supersite concept **[Topic: ENV.2012.6.4-2]**
  - Integrating environmental and health data to advance knowledge of the role of environment in human health and well-being **[Topic: ENV.2012.6.4-3]**

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- 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 China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Europe to Asia: rail research collaboration (Russia, China and the "countries with a joint border to EU's Eastern border) **[Topic: SST.2012.2.5-2]**
  - Coordinating innovation for efficient bus systems in the urban environment ("accession countries and neighbourhood countries and ICPC") **[Topic: SST.2012.3.2-1]**
  - Reduction of the vulnerability of the European Transport System to extreme weather events and natural disasters (ICPC + other countries e.g. USA, Japan) **[Topic: TPT.2012.2-2]**
  - Aerostructures **[Topic: AAT.2012.3.3-1]**
  - Aircraft Safety:
    - Systems and equipment **[Topic: AAT.2012.3.3-2]**; Human factors **[Topic: AAT.2012.3.3-4]**;
    - Propulsion: tolerance to particle ingestion **[Topic: AAT.2012.3.3-5]**; Innovative approach to helicopter safety **[Topic: AAT.2012.3.3-7]**
  - Operational Safety:
    - Design systems and tools **[Topic: AAT.2012.3.4-1]**; Maintenance **[Topic: AAT.2012.3.4-2]**;
    - Airports **[Topic: AAT.2012.3.4-4]**; Human factors **[Topic: AAT.2012.3.4-5]**; Integrated approach to safe flights under icing conditions **[Topic: AAT.2012.3.5-1]**



# 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



# SSH – Interest for China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Climate change uncertainties: policymaking for the Pacific front. (Researchers from the Pacific and the Overseas Territories encouraged to participate) **[Topic: SSH.2012.2.2-4]**
  - Challenge: Human rights in EU external relations and internal policies **[Topic: SSH.2012.4.2-1]**



- 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 China

- All topics open for Chinese participation
- Topics with international cooperation encouraged:
  - GMES Climate Change – Data archiving and exchange **[Topic: SPA.2012.1.3-03]**
  - Consolidation of user requirements for GMES **[Topic: SPA.2012.1.3-04]**
  - Exploitation of space science and exploration data **[Topic: SPA.2011.2.1-01]**
  - Key technologies enabling observations in and from space **[Topic: SPA.2011.2.2-01]**
  - Key technologies for in-space activities **[Topic: SPA.2011.2.2-02]**



- 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 China

- All topics open for Chinese participation
- Topics with international cooperation encouraged:
  - Identification of measures to counter illegal export of metal-bearing waste **[Topic: SEC-2012.2.2-1]**
  - Air traffic Management/Control threat assessment model - Integration Project **[Topic: SEC-2012.2.2-2]**
  - Improving security in air cargo transport - Integration Project **[Topic: SEC-2012.2.2-3]**
  - A common EU aviation security requirement that is reducing costs and is facilitating passenger flows **[Topic: SEC-2012.2.2-4]**
  - Development of mobile laboratories, structures and functions to support rapid assessment of CBRN events with a cross-border or international impact **[Topic: SEC-2012.4.4-1]**



# 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



# Research Infrastructures – Interest for China

- All topics open for Chinese participation
- Topics of particular interest may include:
  - Coordination actions, conferences and studies supporting policy development, including international cooperation, for e-Infrastructures. International cooperation in Research and Education Networking **[Topic:INFRA-2012-3.3]**
  - Biological Resources Centres for micro-organisms **[Topic:INFRA-2012-1.1.6]**
  - Experimental facilities for animal disease infectiology **[Topic:INFRA-2012-1.1.7]**
  - Plant Genetic Resources Centres. The project will also develop activities for the identification and rescue of endangered resources. **[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 participation of China
- Topics calling for international cooperation, which may be of potential interest include:
  - International coordination in RRI **[Topic: FP7- SiS.2012.1.2.1-1]**
  - Scientific data: open access, dissemination, preservation and use **[Topic: FP7- 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-China 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



# 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



# 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 Chinese institutions and researchers;
- The '**World Fellowship**' calls are of particular interest to China:
  - **IRSES** (funding eligible for staff exchange for both Chinese researchers and institutions located in China) - 20 July 2011 - €30 million;
  - **IOF** (for EU MS/AC researchers going to institutions in China) - 13 March 2012 - €40 million;
  - **IIF** (for Chinese researchers going to institutions in EU MS/AC ) - 13 March 2012 - €40 million.



# Marie Curie Actions – Interest for China

**Institutions** located in China 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 China 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.

