

FP7 2012 Work Programme International Dimension Opportunities for Canada

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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 Canadian 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

- 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 Canada

- All topics open for Canada participation
- Topics of particular interest may include:
 - Impact of lifestyle on well-being and diet-related disease (Australia, Canada, New Zealand, US). **[Topic: KBBE.2012.2.2-03]**



- 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 Canada

- All topics open for Canadian participation
- Topics of particular interest may include:
 - Virtual Physiological Human (US, Japan, Canada, Australia, New Zealand) **[Topic: ICT 2011.5.2]**
 - FET Proactive: Unconventional Computation (UCOMP) (USA, Canada, New Zealand and Japan) **[Topic: ICT 2011.9.6]**
 - FET Proactive: Dynamics of Multi-level Complex Systems (DyMCS) **[Topic: ICT 2011.9.7]**



- 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 Canada

- All topics open for Canadian 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]**



- 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 Canada

- All topics open for Canadian participation
- Topics of particular interest may include:
 - Impact of the quality of CO₂ on transport and storage - targeted at US, Canada, China and other CSLF members **[Topic: ENERGY.2012.5.2.2]**



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 Canada

- All topics open for Canadian 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 Canada

- All topics open for Canadian participation
- Topics of particular interest may include:
 - Integrated approach to safe flights under icing conditions (ICPC + 'North America' **[Topic: AAT.2012.3.5-1]**)
 - Safety of ships in Arctic conditions (Canada, US and Russia) **[Topic: SST.2012.4.1-2]**
 - Reduction of the vulnerability of the European transport system to extreme weather events and natural disasters (ICPC + others e.g. USA, Japan) **[Topic: TPT.2012.2-2]**
 - 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)

- All topics open for Canadian participation
- 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

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- 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 Canada

- All topics open for Canadian 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]**
- Following topics targeted at 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]**

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- 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 Canada

- All topics open for Canadian 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



Research Infrastructures – Interest for Canada

- All topics open for Canadian 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]**



- All topics open for Canadian participation
- One call - 20 July - €37.4 million
- Focus on enabling responsible research and innovation (RRI) in the European Research Area
- 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]**

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)
 - Bilateral coordination for the enhancement and development of S&T partnerships (BILAT)
- Topics that might be of potential interest to Canada:
 - Bilateral coordination for the enhancement and development of S&T partnerships [**Topic:FP7-INCO-2012-2, BILAT**]



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



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



Marie Curie Actions – Interest for Canada

Institutions located in Canada 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 Canada 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.

