Marie Skłodowska-Curie Actions under Horizon 2020

Tom Kuczynski
S&T Section,
EU Delegation to Japan

Fukuoka, 25 October 2013
Investment in R&D is part of the solution to exit from the economic crises.
What is Horizon 2020

• Initial Commission proposal for a €80 billion research and innovation funding programme (2014-2020); now just over €70 billion

• A core part of Europe 2020, Innovation Union & European Research Area:
  – Responding to the economic crisis to invest in future jobs and growth
  – Addressing people’s 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*

• **Coupling research to 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)
H2020 Priorities

EXCELLENCE SCIENCE
ERC; MSCA; FET; RI

Euratom (2014-2018)

SOCIETAL CHALLENGES
(7 Thematics)

INDUSTRIAL LEADERSHIP
& Competitive Frameworks

EIT

JRC

27 June 2013
Brussels
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, 2014-2020)*

<table>
<thead>
<tr>
<th><strong>European Research Council (ERC)</strong></th>
<th>13 095</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frontier research by the best individual teams</td>
<td></td>
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<table>
<thead>
<tr>
<th><strong>Future and Emerging Technologies</strong></th>
<th>2 696</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative research to open new fields of innovation</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Marie Sklodowska-Curie actions (MSCA)</strong></th>
<th>6 162</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities for training and career development</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Research infrastructures</strong> (including e-infrastructure)</th>
<th>2 488</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring access to world-class facilities</td>
<td></td>
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</table>

* All funding figures in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council.
Priority 2. Industrial leadership

Why:

• 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

• Europe needs more innovative small and medium-sized enterprises (SMEs) to create growth and jobs
## Proposed funding (€ million, 2014-2020)

<table>
<thead>
<tr>
<th>Category</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leadership in enabling and industrial technologies (LEITs)</strong></td>
<td>13 557</td>
</tr>
<tr>
<td>(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</td>
<td></td>
</tr>
<tr>
<td><strong>Access to risk finance</strong></td>
<td>2 842</td>
</tr>
<tr>
<td>Leveraging private finance and venture capital for research and innovation</td>
<td></td>
</tr>
<tr>
<td><strong>Innovation in SMEs</strong></td>
<td>616 + complemented by expected 20% of budget of societal challenges + LEITs and 'Access to risk finance' with strong SME focus</td>
</tr>
</tbody>
</table>
Priority 3. 
Societal challenges

Why:

• Concerns of citizens and society/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, 2014-2020)

<table>
<thead>
<tr>
<th>Area</th>
<th>Funding (€ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health, demographic change and wellbeing</td>
<td>7 472</td>
</tr>
<tr>
<td>Food security, sustainable agriculture, marine and maritime research &amp; the Bioeconomy</td>
<td>3 851</td>
</tr>
<tr>
<td>Secure, clean and efficient energy *</td>
<td>5 931</td>
</tr>
<tr>
<td>Smart, green and integrated transport</td>
<td>6 339</td>
</tr>
<tr>
<td>Climate action, resource efficiency and raw materials</td>
<td>3 081</td>
</tr>
<tr>
<td>Inclusive and reflective societies</td>
<td>1 309</td>
</tr>
<tr>
<td>Secure societies</td>
<td>1 695</td>
</tr>
<tr>
<td>Science with and for society</td>
<td>462</td>
</tr>
<tr>
<td>Spreading excellence and widening participation</td>
<td>816</td>
</tr>
</tbody>
</table>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)
Mid-long term outgoing Japanese researchers by region (data from MEXT)
Looking at higher education overall (BA, Masters, PhD) – the latest figures that we have (from 2007/8 admittedly) show just over **12,000 Japanese students** registered in the EU: of which
- 6,100 in the UK,
- 2,400 in Germany,
- 2,100 in France

For **PhD only**, we estimate
- 1,300 Japanese in the EU of which
  - 700 in the UK,
  - 400 in France
  - (no data for Germany).
Mobility
Requirement in all projects

Global reach
130 nationalities, 80 countries
Bottom-up nature

Topics

Life Sciences 27%

COFUND 9%

Information Science and Engineering 19%

Economics 2%

Physics 11%

Mathematics 2%

Environmental and Geosciences 11%

Social Sciences and Humanities 9%

Chemistry 10%

Education and Culture
1. Initial training:
   • Initial Training Networks (ITN)

2. Life long training and career development:
   • Intra European Fellowships (IEF)
   • European Reintegration Grants (ERG)
   • Co-funding of national/regional/international programmes

3. Industry dimension:
   • Industry-academia partnership and pathways (IAPP)

4. International dimension:
   • International Outgoing fellowships (IOF)
   • Career reintegration grants (IRG)
   • International Incoming fellowships (IIF)
   • International Research Staff Exchange Scheme (IRSES) (S&T, ENP)
Number of Japanese researchers funded in Marie Curie Actions (2007-2013): 80

EU budget allocated so far to Japanese institutes (2007-2013): € 0.232 million

Number of Japanese institutions participating in Marie Curie Actions (2007-2013): 37

In detail, the number of institutions and the budget allocated to them, as well as the number of researchers recruited in these institutions:

<table>
<thead>
<tr>
<th>Marie Curie Actions (2007-2013)</th>
<th>Number of institutions</th>
<th>Budget (€ million) allocated to Japanese institutions</th>
<th>Number of researchers coming to Japanese institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Training Networks</td>
<td>1</td>
<td>0.232</td>
<td>1</td>
</tr>
<tr>
<td>Industry-Academia Partnerships and Pathways</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>International Research Staff Exchange Staff Scheme</td>
<td>33</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Co-funding of regional, national and international programmes</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Intra-European Fellowships for career development</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>European Reintegration Grants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>International Reintegration Grants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Re-Integration Grants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Career Integration Grants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>International Incoming Fellowships</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>International Outgoing Fellowships</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37</strong></td>
<td><strong>0.232</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
• MCA will continue as the MSCA (Marie Skłodowska-Curie Actions)
• Funding levels ~maintained
• Broad schemes ~maintained
• Simplification in implementation
• Broader definition of industry involvement: participation of businesses (including SMEs) and other socio-economic actors
• Synergies with other parts of H2020 and with E4A
MSCA – Key Features

• **Bottom-up** approach

• Supporting researchers **careers** and fostering key **skills** and competences

• **Mobility**, both trans-national and inter-sectoral
  - ✓ Opening research careers at European and international level
  - ✓ Enhanced business-academia collaboration and staff exchange

• Excellent **employment and working conditions**, in line with the EU Charter and Code for Researchers

• **Gender** balance and equal opportunities

• Emphasis on **outreach** activities and communicating research

• Role model with pronounced **structuring effect** on regional, national and other international programmes
MSCA in Horizon 2020

**Action 1**
Early-stage Researchers
Innovative Training Networks
Training Networks, European Industrial Doctorates, Joint Doctorates

**Action 2**
Experienced Researchers
Individual Fellowships
Support for experienced researchers undertaking international and inter-sector mobility

**Action 3**
Exchange of Staff
Research and Innovation Staff Exchange
International and inter-sector cooperation through the exchange of staff

**Action 4**
COFUND
Co-funding of regional, national and international programmes:
- doctoral programmes
- fellowship programmes

ITN
IEF
IOF
IIF
CIG
IAPP
IRSES
COFUND
<table>
<thead>
<tr>
<th>Innovative Training Networks</th>
<th>ITN</th>
<th>Training Networks, European Industrial Doctorates, Joint Doctorates</th>
</tr>
</thead>
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<tr>
<td>Individual Fellowships</td>
<td>IF</td>
<td>Support for experienced researchers undertaking international and inter-sector mobility</td>
</tr>
<tr>
<td>Research and Innovation Staff Exchange</td>
<td>RISE</td>
<td>International and inter-sector cooperation through the exchange of staff</td>
</tr>
</tbody>
</table>
| Co-funding of programmes     | COFUND | Co-funding of regional, national and international programmes:  
- doctoral programmes  
- fellowship programmes |
Innovative Training Networks (ITN)

MSCA - main EU programme for structured doctoral training

- Dedicated to early-stage researchers (no ER recruitment)
- Involving wide partnership of institutions from academic and non-academic sectors
- Based on FP7 ITNs + EMJD experience
- Addressing triple 'i' dimension of mobility
- Combining scientific excellence with innovation-oriented approach
- Developing entrepreneurship and skills matching research labour market needs
- Enhancing employability of researchers
Opportunities for international and inter-sector mobility of ER to facilitate career moves

Enhance competences and creative potential of best researchers, European and non-European willing to work in the EU

Encompass intra-European, incoming, outgoing mobility and re-integration

Possibility of inter-sector secondments
Research and Innovation Staff Exchange (RISE)

- New type of exchange of staff action to stimulate transfer of knowledge
- Flexible inter-sector (within Europe) and international (with 3rd countries) exchanges of highly skilled research and innovation staff
- No recruitment foreseen
- Single eligibility rule for partnership consortia
- Based on a common research project
✓ Stimulating regional, national and international programmes to foster excellence

✓ Spreading best practices of MSCA in terms of international mobility, research training, career development

✓ Extended to doctoral training

✓ Building on experience from FP7 COFUND
http://ec.europa.eu/research/mariecurieactions/
Research Job Vacancies

Marie Curie Vacancies

Refine by [Country... | Organisation... | Research field...]

Organisation: Johannes Kepler University Linz

1 Job vacancies found (1-1 displayed)

Early Stage Researcher - ESR

One early stage researcher - ESR - position is available as part of the Marie Curie Research Training Network (MC RTN) "solarHyte" funded by the European Commission through its 6th [...]

Country: Austria | Organisation: Johannes Kepler University Linz | Research field: Chemistry | Post date: 28/10/2008 17:46
Marie Slodowska Curie Actions Website
http://ec.europa.eu/mariecurieactions

Horizon 2020
http://ec.europa.eu/research/horizon2020

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