International collaboration in Horizon 2020

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New approach to international cooperation

Horizon 2020: state of play
from **Framework Programme 7** (2007-2013) to **Horizon 2020** (2014-2020)
Drivers of international cooperation in H2020

- **Need to access knowledge** produced outside Europe and gain access to new **markets**

- **Need to promote** Europe as an **attractive location** and **partner** for research and innovation

- **Need to join forces** globally to tackle **global challenges**
International cooperation in FP7: taking stock

High level of international cooperation

➢ "Bottom up":
  • EU 27, plus 13 associated countries and over 100 "3rd countries"
  • eg: 42 African countries involved by end-2012:
    ~1000 participations in ~400 FP7 research projects, mainly (73%) Health, Environment and Food, Agriculture & Biotechnology.
  • project database: http://cordis.europa.eu/projects/

➢ "Top down":
  • EDCTP: HIV/AIDS, malaria & tuberculosis, with African countries
  • ITER: nuclear fusion energy reactor (with Japan, Russia, USA, Korea...)
International participation in FP7

Top FP7 International Partners
Participations per Country

- Russia: 408
- USA: 318
- China: 263
- India: 230
- South Africa: 184
- Brazil: 167
- Canada: 140
- Ukraine: 136
- Australia: 121
- Egypt: 94
- Mexico: 92
- Argentina: 86
- Morocco: 79
- Tunisia: 68
- Japan: 63
- Kenya: 59
- Chile: 47
- Ghana: 46
- South Korea: 46
- Tanzania: 44
EDCTP

- European and Developing Countries Clinical Trials Partnership (EDCTP) partners: 14 EU Member States, Switzerland & Norway, and sub-Saharan African countries, tackling HIV/AIDS, tuberculosis and malaria.

- By end-2012: approximately €356 million (incl. co-funding) for 196 projects (57 clinical trials) and over 300 fellowships.

- Total EU contribution to EDCTP is €200 million.

- Plans for EDCTP-2:

[www.edctp.org](http://www.edctp.org)
GEANT

A hub for research and education IT networks, funded by the EU (partially through development cooperation instruments)

www.geant.net
H2020: a new strategy for international cooperation in research and innovation

Need to engage more actively and strategically in international cooperation:

- Three main objectives:
  - Strengthen EU's excellence and attractiveness in R&I, as well as its industrial & economic competitiveness
  - Tackle global societal challenges
  - Support the EU's external policies

- Combining openness with better targeted actions
- Strengthened partnership with Member States
- Stronger contribution of R&I to external policies of EU

Dual approach

- **Openness:**
  - Horizon 2020 open to participation from across the world
  - Revision of list of countries receiving automatic funding
    - BRIC countries + Mexico will no longer receive automatic funding
    - all other countries: no change.

- **Targeted actions:**
  1. **Thematic targeting:** identifying areas for international cooperation on basis of EU policy agenda
  2. Differentiation by country/region to identify partners for cooperation

  ➔ *multi-annual roadmaps for cooperation with key partners*
Thematic targeting

- **Starting point:** *Horizon 2020* societal challenges and enabling technologies

- **Identify areas** based on criteria of EU and potential partners:
  - Common interest and mutual benefit
  - Research and innovation capacity
  - Markets opportunities
  - Contribution to international commitments, e.g. MDGs or Rio+20
  - Frameworks in place to engage in cooperation
  - *Taking into account: reciprocal access, coordination with Member States, possible deficiencies in third country IPR systems*

- **Support:** *horizontal international cooperation activities*  
  (in *Horizon 2020*: Challenge 6; follow-up to Capacities INCO programme)
Multi-annual roadmaps for cooperation with countries/regions

- **Enlargement and neighbourhood countries, and EFTA**
  - Focus on alignment with the European Research Area (ERA)
  - Support enlargement and neighbourhood policies (support to developing a common 'Knowledge and Innovation Space')

- **Industrialised countries and emerging economies**
  - Focus on competitiveness
  - Tackle global challenges
  - Business opportunities and access to new markets

- **Developing countries**
  - Support development policy by building partnerships contributing to sustainable development
  - Address relevant challenges (e.g. poverty-related diseases, energy, food security, climate change, biodiversity...)

Coordination

- **Coordination with other policies and instruments of EU**
  - external policies (including development policy)
  - other policies with strong international dimension, e.g. trade
  - external dimension of other Union policies, e.g. education

- **International organisations and multilateral fora**
  - shaping global agendas: UN and OECD bodies, Carnegie forum...
  - strengthen links with intergovernmental organisations and initiatives: COST, EUREKA, EIROForum
Promoting common principles

- Promote **level playing field** for international cooperation
- **Mutually agreed principles** to build trust and confidence
- **Issues**: research integrity and ethics, peer review, role of women in science, research careers, fair and equitable treatment of IPR, open access, ...
Partnership with Member States

- Union activities must **add value** and **complement** those of Member States
- Acknowledge progress made through **SFIC**
- From national considerations to **European shared activities**:
  - associate MS to development of EU roadmaps
  - prepare joint European Union-MS roadmaps
  - common guidelines for international cooperation third countries (e.g. visa)
New Strategy - Key Novelties

- **General opening** of Horizon 2020, but with more restricted approach to automatic funding
- **Targeted activities** with scale and scope to achieve impact
- **Multi-annual roadmaps** for key partner countries/regions
- Stronger partnership with EU **Member States**
- **Common principles** for conduct of international cooperation
- Stronger role for EU in **international organisations** and multilateral fora
- Strengthened **implementation, governance, monitoring and evaluation**
Horizon 2020 - Structure

**I - Excellent science**
1. The European Research Council
2. Future and Emerging Technologies
3. Marie Curie actions on skills, training and career development
4. European research infrastructures (including eInfrastructures)

**II - Industrial leadership**
1. Leadership in enabling and industrial technologies
2. Access to risk finance
3. Innovation in SMEs

**III Societal challenges**
1. Health, demographic change and wellbeing
2. Food security, sustainable agriculture, marine research & the bio-economy
3. Secure, clean and efficient energy
4. Smart, green and integrated transport
5. Climate action, resource efficiency and raw materials
6. Inclusive, innovative and secure societies
Horizon 2020 - Simplification

Summary:

- **Single set of** simpler and more coherent *participation rules*
- **New balance between trust and control**
- **Fewer funding rates** (just 2) for different beneficiaries & activities
- Replacing the four methods to calculate overhead or "indirect costs" with a **single flat rate**
- **Major simplification under forthcoming financial regulation**
- **Successful applicants to get working more quickly:**
  Target reduction of average time to grant by 100 days
  (current average of around 350 days under FP7)
Strategic Programme: focus areas

- Personalising health and care for quality of life
- Sustainable food security
- Blue growth: unlocking the potential of oceans
- Smart cities technologies
- Competitive low-carbon energy
- Resource efficient transport
- Waste: a resource to recycle and reuse
- Water innovation: boosting its value for Europe
- Overcoming the economic, financial, political & social crisis: new strategies and governance structures
- Disaster-resilience: safeguarding society
- Digital security
Priorities for ICT funding in H2020

- New generation of components and systems (including micro/nano-electronics and photonics, components and embedded systems)
- Next generation computing, advanced computing systems and technologies
- Infrastructures, technologies and services for the future internet
- Content technologies and information management, including ICT for digital content and creativity
- Advanced interfaces and robots/robotics
Instruments in Horizon 2020

- **collaborative projects**  
  (3rd country participation required and/or taken into account in evaluation)

- **networking** between existing projects

- **joint initiatives** of Union and third countries:
  - bilateral coordinated/joint calls
  - multi-lateral initiatives
  - contribution of Union to third country/international organisations
  - ERA-Net/Art185

- **also in support of programme level cooperation**

- **accompanying measures for networking / dialogue**  
  (eg: CAAST-NET, ERAfrica, IST-Africa, EuroAfrica-ICT ... )

- **Information gathering from multiple sources**  
  (ERAWATCH, OECD, UNESCO, EU Delegations and Science Counsellors...)
Strategic Programme 2014-2016

- **Strategic Programme** is a novelty of Horizon 2020
- guidance for implementation of first 3 years of Horizon 2020 by focusing resources on those areas where maximum impact can be achieved
- top priority: exiting the crisis and tapping into new sources of growth

**Elements of Strategic Programme:**
- Focus areas (pooling resources on key areas for future jobs and growth)
- Leverage & boost engagement of industry (PPPs, dedicated SME instrument, Eurostars)
- Access to finance
- Knowledge and skills (Marie Curie, ERC)
- Enabling technologies
- International Cooperation
- Others: research and innovation divide, partnership with Member States, ...
Work programme preparation

- work programme development guided by **Strategic Programme**
- most likely: **one focus area = one dedicated call**, complemented by other calls to cover parts of Horizon 2020 not in focus areas
- **two year** work programmes
- **Groups of Directors** to steer work programme development (Directorate D involved for International Cooperation aspects)
- **first draft work programmes by summer 2013**
- **First calls: January 2014** (tbc)

- For information: [http://ec.europa.eu/research/horizon2020](http://ec.europa.eu/research/horizon2020)
Thank you

http://ec.europa.eu/research/iscp/index.cfm?lg=en&pg=strategy