

# 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: <a href="http://cordis.europa.eu/projects/">http://cordis.europa.eu/projects/</a>

## >"Top down":

- EDCTP: HIV/AIDS, malaria & tuberculosis, with African countries
- ITER: nuclear fusion energy reactor (with Japan, Russia, USA, Korea...)





## International participation in FP7







#### **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





### **GEANT**

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

## GÉANT At the Heart of Global Research Networking







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
- •see: http://ec.europa.eu/research/iscp/index.cfm?pg=strategy





## 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

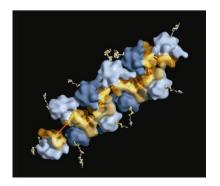
- Coordination with other policies and instruments of EU
  - external policies (including development policy)
  - other policies with strong international dimension, e.g. trade
  - external dimension of other Union policies, e.g. education
- International organisations and multilateral fora
  - shaping 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/nanoelectronics 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
  (3<sup>rd</sup> 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: <a href="http://ec.europa.eu/research/horizon2020">http://ec.europa.eu/research/horizon2020</a>







## Thank you

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

