



HORIZON 2020

**The New EU
Framework Programme for
Research and Innovation**

2014-2020

Stéphane Hogan
Science Counsellor,
EU Delegation to the African Union



Why the EU supports Research & Innovation

- **Investing in future growth and development**
- **Addressing people's concerns about their livelihoods, safety and environment**
- **Strengthening the EU's global position in research, innovation and technology**

Supporting competitiveness & improving quality of life

How the EU support research & innovation: funding and enabling conditions

Funding: the Framework programmes (FP)

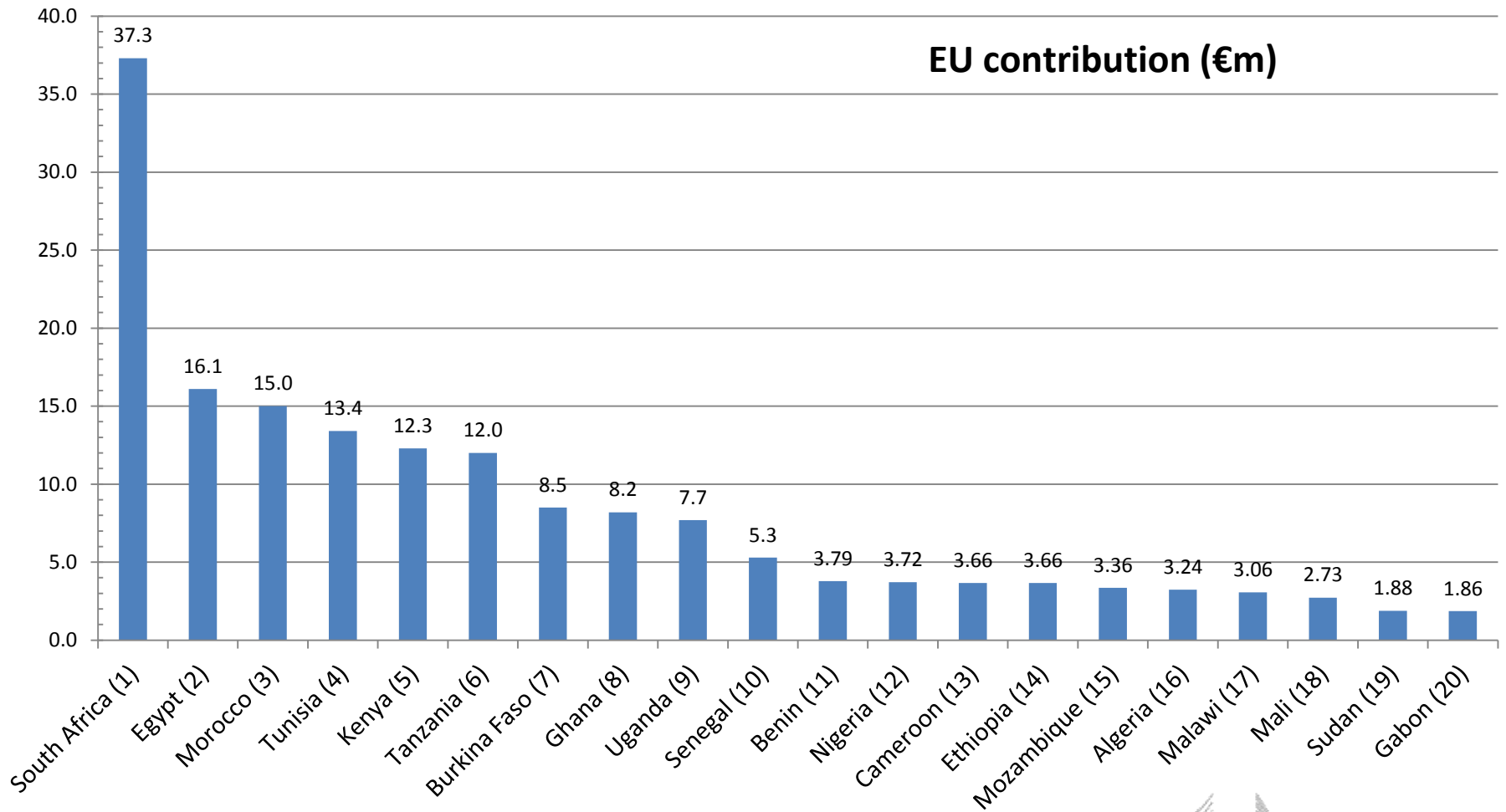
- **FP7: €55 billion for research and innovation**
- **Very open to international collaboration**
- **Africa in FP7** (as of September 2013)
 - 1315 participations from 45 countries in 565 projects
 - total EU-funding received: €178 million (\$240 million)

Enabling conditions

- **European Research Area (eg mobility), IPR...**

AFRICA in FP7

Leading participants



BOTSWANA in FP7

- 8 participations
- €798,000 (ZAR 10.9 million)
- Main participating institutions:
 - University of Botswana
 - Ministry of Communications, Science and Technology
 - Waternet Trust
- Examples of projects:
 - HURAPRIM
 - DEWFORA
 - CAAST-NET
 - IST-AFRICA

AFRICA in FP7 – examples of projects (1)

- DEWFORA - Improved Drought Early Warning and FORecasting to strengthen preparedness and adaptation to droughts in Africa
- From January 2011 to December 2013, EU contribution €3.5 million.
- Led by Deltares (The Netherlands) with 9 other European partners and 8 African partners: the Ministry of Water Resources and Irrigation (Egypt), Waternet Trust (**Botswana**), IGAD Climate Prediction and Applications Centre (Kenya), Institut Agronomique et Vétérinaire (Morocco), Universidade Eduardo Mondlane (**Mozambique**), Council for Scientific and Industrial Research (**South Africa**), WR Nyabeze & Associates (**South Africa**) and Dinder Center for Environmental Research (Sudan).

[www.dewfora.net]

MALAWI in FP7

- 16 participations
- €3.06 million (ZAR 46 million)
- Main participating institutions:
 - University of Malawi
 - University of Mzuzu
 - Malawi Institute of Health
 - The Research for Equity and Community Health Trust
- Examples of projects:
 - CLIMAFRICA
 - QWECI
 - ETATMBA
 - AVECNET
 - REACHOUT
 - NOMI
 - EQUITABLE

AFRICA in FP7 – examples of projects (2)

- QWECI - Quantifying Weather and Climate Impacts on Health in Developing Countries to understand the climate drivers of vector-borne diseases (malaria, Rift Valley Fever and tick-borne diseases).
- From February 2010 to July 2013, EU contribution €3.5 million.
- Led by University of Liverpool (UK) with 5 other European partners and 7 African partners: Kwame Nkrumah University of S&T (Ghana), University of **Malawi**, Université Cheikh Anta Diop (Senegal), Centre de Suivi Ecologique (Senegal) and Institut Pasteur de Dakar (Senegal) and University of Pretoria (**South Africa**).

[www.liv.ac.uk/qweci/]

MOZAMBIQUE in FP7

- 22 participations
- €3.36 million (ZAR 46 million)
- Main participating institutions:
 - Universidade Eduardo Mondlane
 - Instituto Nacional de Saúde
 - Instituto Nacional de Meteorologia
 - Unidade Tecnica de Implemetegao da Politica de Informatica
- Examples of projects:
 - AGRICAB
 - EAU4FOOD
 - DEWFORA
 - IST-AFRICA
 - SAGA-EO

AFRICA in FP7 – examples of projects (3)

- AGRICAB - Enhancing Earth Observation capacity for Agriculture and Forest Management in Africa.
- From October 2011 to March 2015, EU contribution €3.5 million.
- Led by the Flemish Institute for Technological Research (Belgium) with 5 other European partners, 1 Brazilian and 10 African partners: Geosas Consulting Service PLC (Ethiopia), Department of Resource Surveys and Remote Sensing (Kenya), the International Livestock Research Institute - ILRI (Kenya) and the Regional Centre for Mapping Resources for Development (Kenya), Instituto Nacional de Meteorologia (**Mozambique**), Universidade Eduardo Mondlane (**Mozambique**), Centre Regional AGRHYMET (Niger), Centre de Suivi Ecologique (Senegal), Council for Scientific and Industrial Research - CSIR (**South Africa**) and Observatoire du Sahara et du Sahel (Tunisia).

[www.agricab.info]

NAMIBIA in FP7

- 9 participations
- €708,000 (ZAR 9.7 million)
- Main participating institutions:
 - University of Namibia
 - Ministry of Education
 - Ministry of Fisheries and Marine Resources
 - Earthlife Namibia Trust
- Examples of projects:
 - EQUITABLE
 - SECUREFISH
 - DEEPFISHMAN
 - IST-AFRICA

AFRICA in FP7 – examples of projects (4)

- EQUITABLE - Enabling universal and equitable access to healthcare for vulnerable people in poor resource settings
- From March 2009 to February 2013, EU contribution €2.65 million.
- Led by Trinity College Dublin (Ireland) with 1 other European partner (Sintef, Norway) and 6 African partners:
 - University of Malawi,
 - University of **Namibia**,
 - Human Science Research Council (**South Africa**),
 - Stellenbosch University (**South Africa**),
 - Secretariat of the African Decade of People with Disabilities (**SA**)
 - and Ahfad University for Women (Sudan).

SOUTH AFRICA in FP7

- 222 participations (excluding People programme) – 1st in Africa
- 18 South African researchers funded through Marie Curie Actions
- €37.3 million (ZAR 511 million)
- Main participating institutions:
 - CSIR
 - University of Cape Town
 - DST
 - University of Kwazulu-Natal
 - Stellenbosch University
 - University of Pretoria
 - University of Witwatersrand
 - North West University
 - University of the Western Cape
 - National Research Foundation
 - Agricultural Research Council
 - Medical Research Council
 - Human Sciences Research Council

AFRICA in FP7 – examples of projects (5)

- EMERALD - Emerging mental health systems in low- and middle-income countries - aims to improve mental health outcomes by enhancing health system performance in Ethiopia, India, Nepal, Nigeria, South Africa & Uganda.
- From November 2012 to October 2017, EU contribution €5.8 million.
- Led by King's College London (UK) with partners from 3 other European countries, India, Nepal, WHO and 5 African partners: Addis Ababa University (Ethiopia), University of Ibadan (Nigeria), University of Cape Town (**South Africa**), University of Kwazulu Natal (**South Africa**) and Butabika National Mental Hospital (Uganda).

[www.emerald-project.eu]

ZAMBIA in FP7

- 10 participations (excluding People programme) – 1st in Africa
- €1.64 million (ZAR 22 million)
- Main participating institutions:
 - University of Zambia
 - Zambia Forum for Health Research
 - Tropical Disease Research Centre
 - Golden Valley Agricultural Research Trust
 - Participatory Ecology Land Use Management
- Examples of projects:
 - EQUITABLE
 - WAHARA
 - EAU4FOOD
 - ICONZ
 - SUREAFSPAN
 - PRD COLLEGE

AFRICA in FP7 – examples of projects (6)

- PRD COLLEGE – Poverty related diseases college (international training programme on bioMedicine and development)
- From July 2009 to March 2013, EU contribution €1.4 million.
- Led by University of Yaoundé (Cameroon) with 6 European partners and 3 African partners:
Makerere University (Uganda), Ministry of Health and Social Welfare (Tanzania) and Tropical Disease Research Centre (Zambia).

[www.prd-college.eu]

Horizon 2020

What is Horizon 2020 ?

- **European Commission proposal for a €70 billion research and innovation funding programme (2014-2020)**
- **A core part of Europe 2020, Innovation Union & European Research Area:**
 - Responding to economic crisis to invest in future jobs & 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 3 separate programmes /initiatives*
- **Coupling research to innovation** – from research to retail, covering all forms of innovation
- **Focus on societal challenges** facing society, e.g. health, food, clean energy, transport...
- **Simplified access** for all companies, universities, institutes, in all EU countries and beyond Europe.

* The 7th Research Framework Programme (FP7),
innovation aspects of the Competitiveness and Innovation Framework Programme (CIP)
EU contribution to the European Institute of Innovation and Technology (EIT)

Three priorities



Priority 1. Excellent science

Why:

- **World class science is the foundation of tomorrow's technologies, jobs and wellbeing**
- **Need to develop, attract and retain research talent**
- **Researchers need access to the best infrastructures**

Proposed funding (€ million, 2014-2020)*

<i>European Research Council (ERC)</i> Frontier research by the best individual teams	13 095
<i>Future and Emerging Technologies</i> Collaborative research to open new fields of innovation	2 696
<i>Marie Skłodowska-Curie actions (MSCA)</i> Opportunities for training and career development	6 162
<i>Research infrastructures (including e-infrastructure)</i> Ensuring access to world-class facilities	2 488

* 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)

<i>Leadership in enabling and industrial technologies (LEITs)</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)	13 557
<i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation	2 842
<i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs	616 + complemented by expected 20% of budget of societal challenges + LEITs and 'Access to risk finance' with strong SME focus

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)

Health, demographic change and wellbeing	7 472
Food security, sustainable agriculture, marine and maritime research & the Bioeconomy	3 851
Secure, clean and efficient energy *	5 931
Smart, green and integrated transport	6 339
Climate action, resource efficiency and raw materials	3 081
Inclusive and reflective societies	1 309
Secure societies	1 695
<i>Science with and for society</i>	<i>462</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)

Role of EIT and JRC in Horizon 2020

	<i>Proposed funding (€ million, 2014-2020)</i>
<i>European Institute Technology (EIT)</i> Combining research, innovation & training in knowledge and Innovation Communities	2 711
<i>Joint Research Centre (JRC)*</i> Providing a robust, evidence base for EU policies	1 903

* Additional funding for the JRC for Euratom Treaty activities

Simplification: Rules for Participation

1. A single set of rules:

- ✓ Adapted for the whole research and innovation cycle
- ✓ Covering all research programmes and funding bodies
- ✓ Aligned to the Financial Regulation, coherent with other new EU Programmes

2. One project – one funding rate

- ✓ Maximum of 100% of the total eligible costs (except for innovation actions, where a 70% maximum will apply for profit making entities)
- ✓ Indirect eligible costs: a flat rate of 25% of direct eligible costs

3. Simple evaluation criteria

- ✓ Excellence – Impact – Implementation (Excellence only, for the ERC)

4. New forms of funding aimed at innovation

- ✓ pre-commercial procurement, inducement prizes, dedicated loan and equity instruments

5. International participation

- ✓ facilitated but better protecting EU interests

Simplification: Rules for Participation

6. Simpler rules for grants

- ✓ broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants

7. Fewer, better targeted controls and audits

- ✓ Lowest possible level of requirements for submission of audit certificates without undermining sound financial management
- ✓ Audit strategy focused on risk and fraud prevention

8. Improved rules on intellectual property

- ✓ Balance between legal security and flexibility
- ✓ Tailor-made IPR provisions for new forms of funding
- ✓ A new emphasis on open access to research publications

Beyond the Rules: further simplified provisions in the Grant Agreement and implementing procedures to facilitate access to Horizon 2020 (e.g. common IT platform).

Simplification: summary

- **Single set of** simpler and more coherent participation **rules**
- New **balance between trust and control**
- Moving from several **funding rates** for different beneficiaries and activities to just two
- Replacing the four methods to calculate overhead or “indirect costs” with a **single flat rate**
- Major simplification under the **forthcoming financial regulation**
- **Successful applicants to get working more quickly:** time-to-grant of 8 months; exceptions for the ERC and in duly justified cases

Strong participation by SMEs

- **Integrated approach** - around 20% of the total budget for societal challenges and LEITs to go to SMEs
- **Simplification** of particular benefit to SMEs (e.g. single entry point)
- A **new SME instrument** will be used across all societal challenges as well as for the LEITs
- A dedicated activity for research-intensive SMEs in **'Innovation in SMEs'**
- **'Access to risk finance'** will have a strong SME focus (debt and equity facility)

Next steps

- **Formal political decisions on Horizon 2020**
- **Formal political decision on Multi-annual financial framework (2014-2020)**
- **Adoption of work programme and publication of first calls for proposals**
- **Horizon 2020 national launch events**

Tentative schedule

Autumn 2013

Autumn 2013

11 December 2013

October to January 2014

International cooperation

- **International cooperation is crucial** to address many Horizon 2020 objectives
- **Principle of general openness:** will continue to be the most open funding programme in the world
- Targeted actions to be implemented taking **a strategic approach to international cooperation**

Preparing for the first calls

- Obtain and study the work programme carefully
- Get involved if you see an opportunity that fits your strategy
- Find partners rapidly, but chose them carefully
- Do not view EU grants solely as a source of cash, but as a means to access know-how & resources from partners.
- Participation in a FP project involves reporting duties
 - these need to be properly planned & resourced.
- Use support structures:
ie National Contact Points (NCPs) if available; if not, ask for some...

Preparing for the first calls

- **Obtain and analyse calls texts asap**
- **Develop and maintain your international contacts**
- **Be proactive !**



HORIZON 2020

**Thank you
for your attention!**

Find out more:

www.ec.europa/research/horizon2020