

# EU Research & Innovation policy – opportunities for international cooperation

## *La politique de recherche et d'innovation de l'UE – les opportunités pour la coopération internationale*



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**Cape Verde, 23 June 2014**



# EU support for Research & Innovation (R&I)

- **EU budget 2014-2020:** Overall reduction in real terms compared to previous 7 years. However, two areas have increased:
  - R&I (+27%) & Higher education (+40%).
- **Horizon 2020:** ~€80 billion (2014-2020)  
for European research with international collaboration  
This includes the Marie Skłodowska-Curie Actions (MSCA)
- **ACP Science & Technology programme:** €20 million in 2013.  
Funded by EU; implemented by ACP Secretariat ([www.acp-st.eu](http://www.acp-st.eu))
- **African Union Research Grants (AURG)** for collaborative research projects involving African and European researchers, managed by AUC.
  - €14 million (2011-2012) through 10<sup>th</sup> EDF (African part of ACP)
  - €20 million (2015-2020) through EU PanAf programme (TBC)



# HORIZON 2020

An opportunity for international collaboration



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# Why the EU supports Research & Innovation

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

**Supporting competitiveness & improving quality of life**

*"Science, Technology & Innovation are engines of growth in any economy"*

2<sup>nd</sup> African Innovation Outlook (NEPAD, April 2014).

# Why international cooperation in R&I makes sense

- Tackling **global societal challenges** together  
(building critical mass, complementary knowledge and geographic conditions, optimising use of infrastructures...)
- **Strengthening excellence, attractiveness & competitiveness**  
by joining forces across borders (mutual benefit; attracting talent and investment; access to markets; common values...)
- Supporting **external policies** (eg development) and international commitments
- **Science diplomacy**

# Horizon 2020

The new EU programme  
for Research and Innovation  
(2014-2020)

# What is Horizon 2020?

The new EU programme for research and innovation  
€ 79 billion over 7 years (2014-2020)

- An integrated programme coupling research to innovation
- Challenge-based
- Strong focus on SMEs
- Major simplification
- Open to the world



# What Horizon 2020 is not:

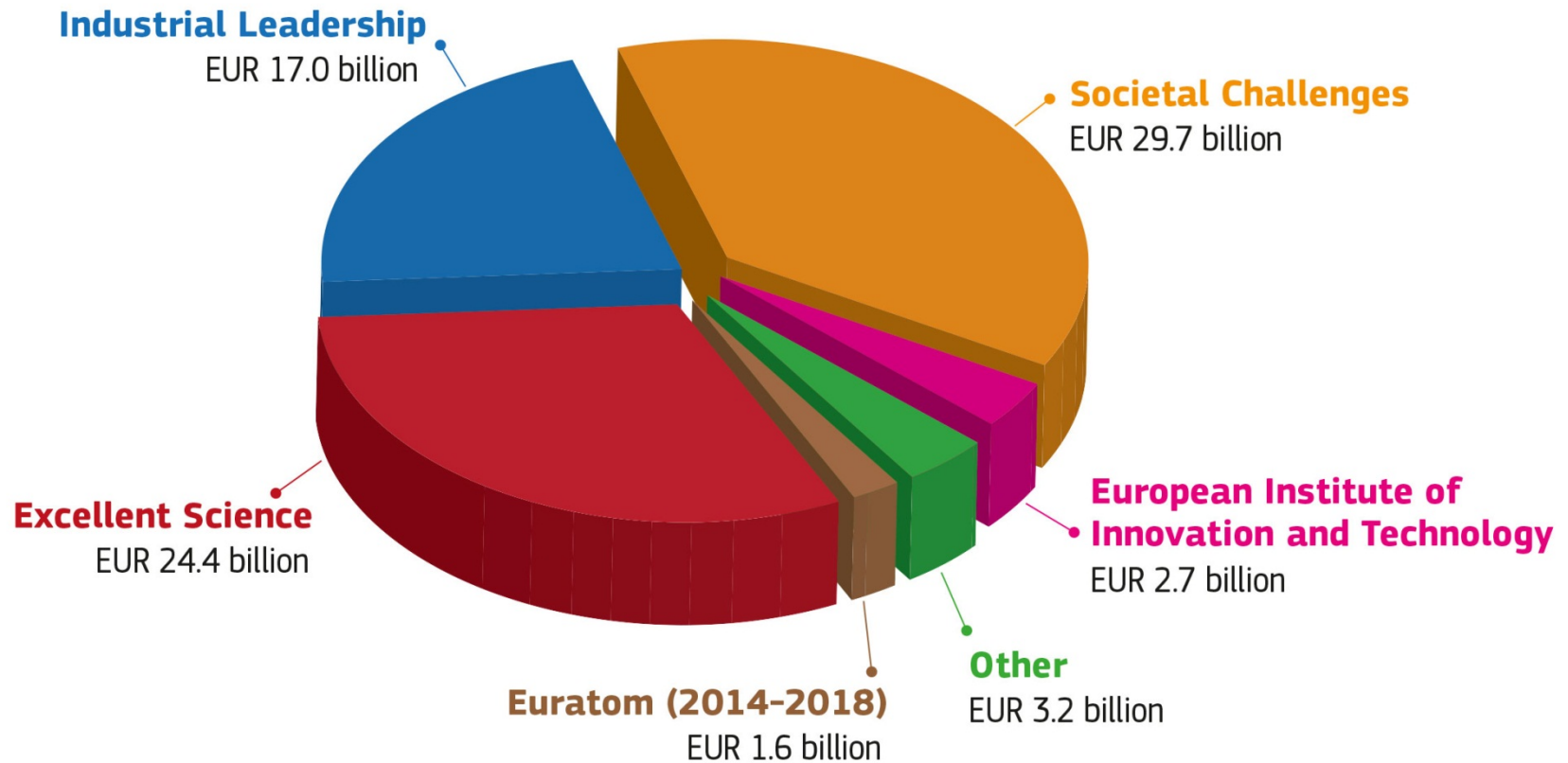
- It is not a development aid programme
- It is not a bilateral cooperation programme

*It is a programme focussed on European needs and global challenges, open to international cooperation.*



# € 79 billion from 2014 to 2020

## HORIZON 2020 BUDGET (in current prices)



# Three priorities - rationale

## Priority 1. Excellent science (includes ERC & MSCA)

- 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

## Priority 2. Industrial leadership

- 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 R&I
- Europe needs more innovative SMEs to create growth and jobs

## Priority 3. Societal challenges

- Concerns of citizens and society/EU policy objectives (health, food, climate, environment, energy, transport, etc.) cannot be addressed without innovation
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities
- Promising solutions need to be tested, demonstrated and scaled up

# Cross-cutting issues across the Work Programmes

## Climate Change

- ✓ ~35% of the budget for activities addressing climate change
- ✓ Climate topics are of particular importance in some of the focus areas of the Work Programme



# International cooperation

**International cooperation is crucial** to address many Horizon 2020 objectives

**Principle of general openness:** the programme will remain the most open funding programme in the world, with the *objective of increasing international participation*

**Targeted actions** to be implemented **taking a strategic approach to international cooperation**, for instance resulting from priorities set by the **High Level Policy Dialogue (HLPD) between the EU and Africa** (AU and EU Commissions and Member States).



# Basic principles for calls proposals and evaluations

- **Horizon 2020 priorities and mechanisms defined by the EU**
- **Calls for proposals** (and accompanying work programmes) **are prepared by the European Commission**, based on these priorities and extensive consultations (Advisory Groups and Programme Committees representing the EU Member States), incl. the **HLPD**.
- At the EC, **DG Research & Innovation has a Directorate for International Cooperation** to ensure that this dimension is taken into account and to facilitate dialogue and participation, eg **HLPD**.
- **Project consortia and proposals are entirely self-organised**  
Consortia must have at least 3 European partners.
- **Evaluation of proposals by panels of independent experts**
- **No national quotas** (i.e. "*pas de principe de juste retour*")
- **100% funding** of research costs + 20% for overheads.

# Practical aspects of Horizon 2020

- **First calls for proposals published 11 December 2013**
  - > Total funding € 15 billion over two years (2014-2015)
- **First deadlines for submission from March 2014 onwards**
- **Researchers should analyse the calls texts rapidly**
- **Develop and maintain their international contacts**
- **Be proactive**
  
- **They can also register as evaluators**

**Should not view EU grants only as a source of funding, but as a means to build deep & long-term cooperation.**

# 2014 calls published on Participant Portal

- **Single entry point**  
from calls to electronic submission of proposals
- **New tools for smart searches for the benefit of users,**  
including newcomers to the programme.
- <http://ec.europa.eu/research/participants/portal>

The screenshot shows the main page of the Participant Portal. At the top, there is a navigation bar with the European Commission logo and the text 'RESEARCH & INNOVATION Participant Portal'. Below this, a large banner for 'Horizon 2020 Funding' is displayed, with the text 'Starting from 1/1/2014'. The main content area is divided into sections for 'Non-registered users' and 'Registered users', each with a list of actions. At the bottom, there is a row of six icons representing different portal features: 'WHAT'S NEW?', 'FUNDING OPPORTUNITIES', 'HOW TO PARTICIPATE', 'WORK AS AN EXPERT', 'MY PERSONAL AREA', and 'INFORMATION AND SUPPORT'. The footer contains the text 'RESEARCH ON EUROPA - COORDS - OLAF' and '© European Communities'.

The screenshot shows the 'Funding Opportunities' page. It features a navigation bar with the European Commission logo and the text 'RESEARCH & INNOVATION Participant Portal'. Below the navigation bar, there is a section for 'Horizon 2020' with a search box and a call update button. A prominent red message states: 'Please note that the H2020 calls have not yet been published and thus this section is not available'. To the right, there is a 'Funding Opportunities' section with a 'H2020 ONLINE MANUAL' link and a list of programmes: 'Horizon 2020 - EU research funding from 2014', 'Seventh Framework Programme (FP7)', and 'Competitiveness and Innovation Framework Programme (CIP)'. Below this, there is a 'FP7 and CIP - previous programmes' section with a 'COSME' link and a 'Horizon 2020' section with a globe image and text describing the programme. The footer contains the text 'RESEARCH ON EUROPA - COORDS - OLAF' and '© European Communities'.

# Sources of information

- **Horizon 2020 web site:** <http://ec.europa.eu/research/horizon2020>
- **Participant portal:** <http://ec.europa.eu/research/participants/portal>
- **CORDIS, LinkedIn...** & specialised databases (eg: [Healthcompetence.eu](http://Healthcompetence.eu))
- **Horizon 2020 information events in Europe:**  
[http://ec.europa.eu/research/horizon2020/index\\_en.cfm?pg=h2020-events](http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-events)
- **Horizon 2020 information events in Africa:**
  - **South Africa** – 7 October 2013
  - **Ghana** – 4 November 2013
  - **Burkina Faso** - 6 November 2013
  - **Ethiopia (ICT)** – 5 December 2013
  - **Cameroon** – 11 December 2013
  - **Nigeria** – 12-13 December
  - **Tanzania** – 20 January 2014
  - **Kenya** – 21 January 2014
  - **Uganda** – 22 January 2014
  - **Malawi** – 24 January 2014
  - **South Africa** – 27-31 January 2014
  - **Egypt** – 9 February 2014
  - **Ethiopia (ILRI)** – 13 February 2014
  - **Rwanda** – 28 May 2014
  - **Cape Verde** – 23-25 June 2014





# HORIZON 2020

## AFRICA & CAPE VERDE in FP7



June 2014

3<sup>rd</sup> Framework programme (FP4) 1992-1994

4<sup>th</sup> Framework programme (FP4) 1994-1997

5<sup>th</sup> Framework programme (FP5) 1998-2002

6<sup>th</sup> Framework programme (FP6) 2002-2006

7<sup>th</sup> Framework programme (FP7) 2007-2013

**Horizon 2020 (2014-2020)**

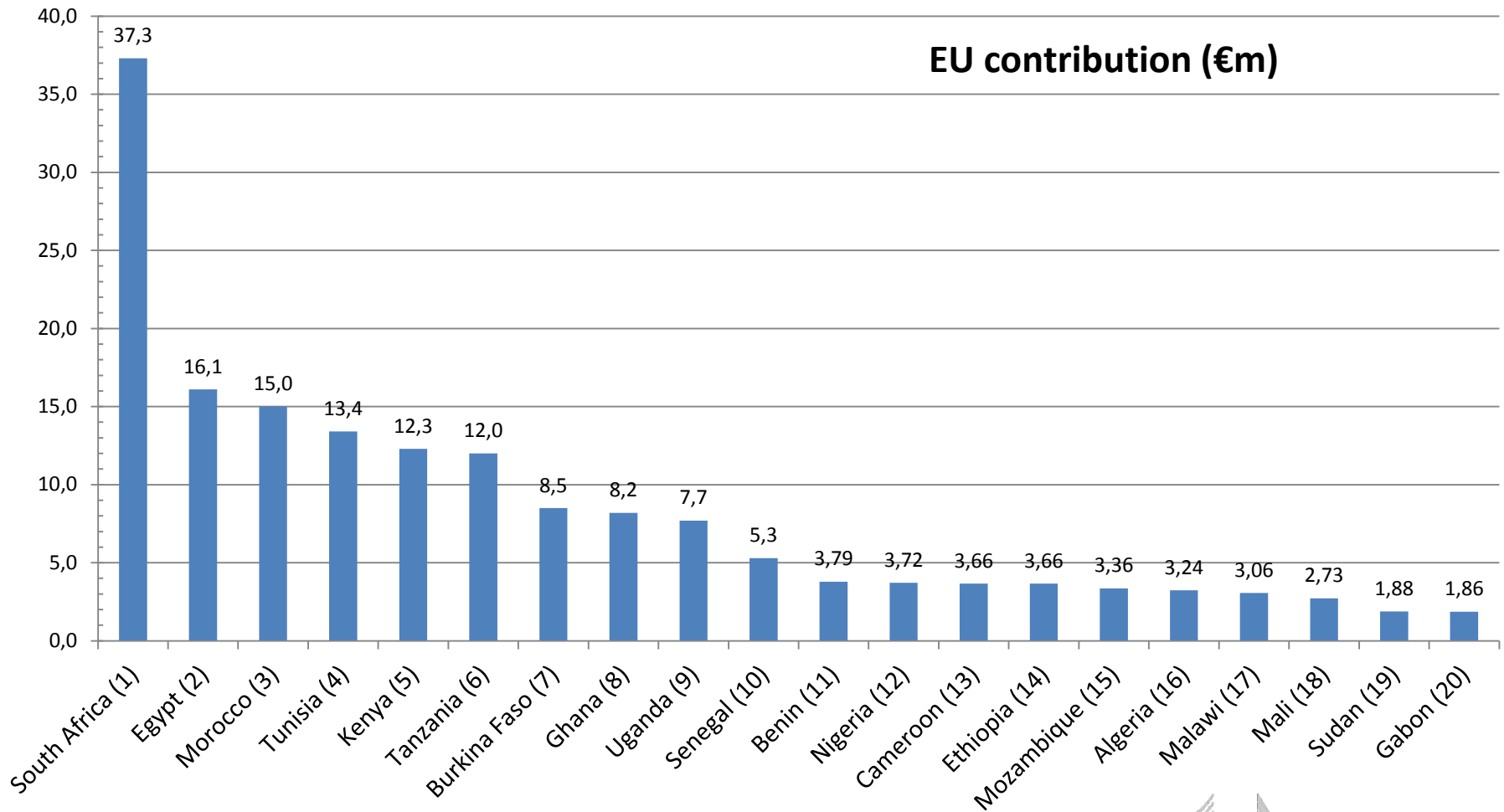
# The Framework programmes & International Cooperation

- FPs are very open to international cooperation
- **Africa in FP7** (data from September 2013)
  - 45 countries involved
  - 1315 participations in 565 projects
  - total EU-funding received: €178 million
    - Mainly (82%) in Cooperation programme (€146m)
    - Mainly (~75%) in Health, Agro-food & Environment

# AFRICA in FP7

(Sept. 2013)

## Leading participants



# Cape Verde in FP7

- **9 participations** (main area: Environment – 5 projects)
- **EU contribution: €850,000**
- **Examples of projects:**
  - PREFACE – Enhancing prediction of tropical Atlantic climate and its impacts
  - GMOS – Global Mercury Observation System
  - FIXO<sub>3</sub> – Fixed Point Open Ocean Observatories Network
  - EUROSITES – Integration & enhancement of deep-ocean observatories
  - MIA-VITA – Mitigate and assess risk from volcanic impact
  - GARNET-E – GMES for Africa: Network for Information Exchange & Training
  - CAAST-Net Plus – Africa-EU cooperation in R&I for global challenges
- **Participating institutions:**
  - Instituto Nacional de Desenvolvimento das Pescas (4)
  - Instituto Nacional de Meteorologia e Geofísica (2)
  - Ministério do Ensino Superior, Ciência e Inovação (2)
  - Ministério de Administração Interna (1)

# Cape Verde in FP7 – examples of projects (1)

- **PREFACE – Enhancing prediction of tropical Atlantic climate and its impacts**
- Aim: to improve climate prediction and the quantification of climate change impacts in the region; to improve understanding; to assess the socio-economic vulnerabilities and evaluate the resilience of Atlantic African fishing communities to climate-driven ecosystem shifts and global markets.
- From November 2013 to October 2017, **EU contribution €9 million.**
- Led by the University of Bergen (Norway) with 17 other European partners and 10 African partners, including:  
**Instituto Nacional de Desenvolvimento das Pescas (Cape Verde).**
- For more information: <http://preface.b.uib.no>

# Cape Verde in FP7 – examples of projects (2)

- **GMOS – Global Mercury Observation System**
- Aim: to develop a coordinated global observation system for mercury able to provide temporal and spatial distributions of mercury concentrations in ambient air and precipitation over land and over surface waters at different altitudes and latitudes around the world.
- From November 2011 to Oct. 2015, **EU contribution €6.8 million.**
- Led by Consiglio Nazionale delle Ricerche (Italy) with 14 other European partners and several international partners, including:  
**Instituto Nacional de Meteorologia e Geofísica (Cape Verde).**
- For more information: [www.gmos.eu](http://www.gmos.eu)

# Cape Verde in FP7 – examples of projects (3)

- **FIXO<sub>3</sub> – Fixed Point Open Ocean Observatories Network**
- Aim: to integrate European open ocean fixed point observatories and to improve access to these key installations for the broader community. These will provide multidisciplinary observations in all parts of the oceans from the air-sea interface to the deep seafloor.
- From September 2013 to August 2017, **EU contribution €7 million.**
- Led by the Natural Environment research Council (UK) with 27 other European partners and one international partner:  
**Instituto Nacional de Desenvolvimento das Pescas (Cape Verde).**
- For more information: [www.fixo3.eu](http://www.fixo3.eu)



# Cape Verde in FP7 – examples of projects (4)

- **MIA-VITA – Mitigate and assess risk from volcanic impact on terrain and human activities**
- Aim: to develop tools and integrated cost effective methodologies to mitigate risks from various hazards on active volcanoes (prevention, crisis management and recovery).
- From October 2008 to Sept. 2012, **EU contribution €3.5 million.**
- Led by the Bureau de Recherche Géologiques et Minières (France) with partners from 10 international partners, including:  
**Instituto Nacional de Meteorologia e Geofísica (Cape Verde).**
- For more information: <http://miavita.brgm.fr>

# Cape Verde in FP7 – examples of projects (5)

- **GARNET-E – GMES for Africa: Network for Information Exchange & Training in Emergencies**
- Aim: to enable and enhance the ability of African states to use satellite Earth Observation to manage natural and man-made humanitarian emergencies. To develop a network of EU and African organisations and users to build economic, technical and commercial capacity along the priority lines identified in consultation with the African Union under the GMES & Africa initiative.
- From May 2010 to April 2012, **EU contribution €1 million.**
- Led by Infoterra (UK) with 10 other European partners and 9 African partners, including: **Ministério de Administração Interna (Cape Verde).**
- For more information: [www.gmes-garnete.net](http://www.gmes-garnete.net)

# Examples of projects with a regional dimension (FP7 Capacities programme)

- **CAAST-Net Plus:** Advancing STI Cooperation between Sub-Saharan Africa and Europe, particularly in Horizon 2020 Societal Challenges: Food security – Climate change – Health  
12 European partners and 13 African partners, including **Cape Verde**.  
Duration: 2013-2016, EU Contribution: €4 million [ [www.caast-net-plus.org](http://www.caast-net-plus.org) ]
- **ERAfrica:** to support European & African countries establish a virtual fund for R&D. Result: 15 countries contributed €11 million for 3 joint calls for proposals => 20 projects are to be funded.  
Duration: 2013-2014, EU Contribution: €2 million [ [www.erafrica.eu](http://www.erafrica.eu) ]
- **IST-AFRICA:** Regional Impact of IST in Africa  
Aim: strategic collaboration with 19 African ministries and national councils responsible for ICT/STI adoption, policy and research.  
Duration: 2011-2014, EU Contribution: ~ €1 million [ [www.ist-africa.org](http://www.ist-africa.org) ]

# Observations & suggestions for Cape Verde

- **Strong participation in environment sector – an opportunity !**
- **No participation in health or agro-food sectors – an opportunity ?**
- **Identify strengths and priorities**
- **Leverage bilateral research collaborations with European countries**
- **Successful participation needs commitment** from researchers AND from research institutions and government.
- **Support mechanisms are necessary** – i.e. NCPs  
This is an investment requiring the right people and a moderate budget, which should give very high and long-term returns.
- **Participation in EU-funded initiatives and networks is valuable**  
(eg **CAAST-Net Plus** or **IST-AFRICA**) for access to information and partners.



# HORIZON 2020

**Thank you for your attention!**

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**Find out more:**

[www.ec.europa/research/horizon2020](http://www.ec.europa/research/horizon2020)

HORIZON 2020

<http://prezi.com/dycpimkrkgml/horizon-2020-ec-official-version-2013/>