



MINISTERIO
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Fit for Health

Support to **SMEs & Researchers**
in **FP7 Health-oriented projects**

Horizon 2020 in a nutshell

5th September 2013 | Bucharest

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www.fitforhealth.eu



Fit for Health is funded by
the European Commission

- Horizon 2020: key objectives
- Priority 1: Excellent Science
- Priority 2: Industrial Leadership
- Priority 3: Societal Challenges
- EIT / JRC

- Public largest international, competitive, cooperative Research & Innovation Programme for the period 2014-2020
- Central instrument for the implementation of the European Research Area
- Strategic Programme, some pre-defined thematic areas
- Supports competitiveness in Europe
- Beyond Europe: International Cooperation



- A single programme bringing together three separate programmes/initiatives: FP7+CIP+EIT*
- More 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)**



Three priorities:

1. Excellent science
2. Industrial leadership
3. Societal challenges

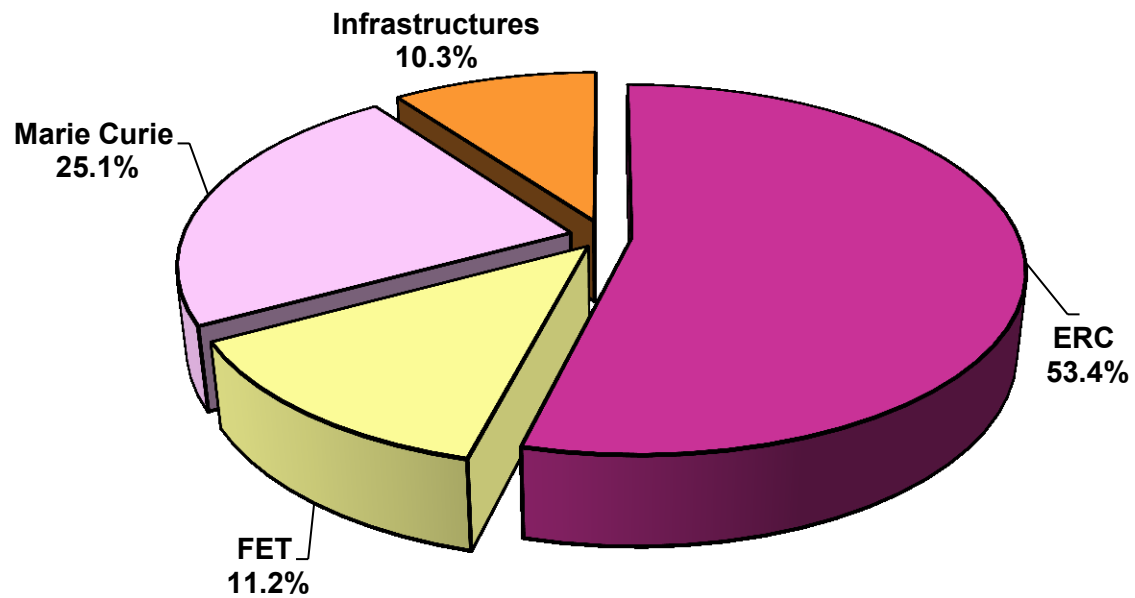


Why:

- 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.

Excellent Science (million euro, 2014-2020)

<p>European Research Council (ERC) <i>Frontier research by the best individual teams</i></p>	<p>11 900</p> 
<p>Future and Emerging Technologies (FET) <i>Collaborative research to open new fields of innovation</i></p>	<p>2 500</p> 
<p>Marie Skłodowska-Curie actions (MSCA) <i>Opportunities for training and career development</i></p>	<p>5 600</p> 
<p>Research infrastructures (including e-infrastructure) <i>Ensuring access to world-class facilities</i></p>	<p>2 300</p> 



Graph obtained with data from previous slide

- Support for individual researchers or teams, led by a Principal Investigator (PI)
- All fields of science are eligible (3 panels):
 - Physical Science and Engineering
 - Life Sciences
 - Social Science and Humanities
- Investigator-driven, **bottom-up**
- **Excellence** is the only criterion
- Host organisation to be located in an EU Member State or Associated Country
- Highly attractive funding



Indicative timeline:

- Publication of the provisional ERC Work Programme 2014, late in 2013
- Opening and submission deadlines of new ERC calls throughout 2014:
 - ✓ **Starting grants**; first and second quarter of 2014
 - ✓ **Consolidator grants**; second quarter of 2014
 - ✓ **Advanced grants**; fourth quarter of 2014
- No calls for Synergy grants in 2013 and 2014;
- Normal schedule for Proof of Concept grants (one call with two deadlines in 2014)



<http://erc.europa.eu/>



Get
your **FET**
together!

- FET fosters exploratory research to open up new avenues across the full breadth of future information and communication technologies
- Supports new and alternative ideas, concepts or paradigms of risky or nonconventional nature
- Radical breakthroughs in ICT require new attitudes and novel collaborations between a broad diversity of actors in research

http://cordis.europa.eu/fp7/ict/programme/fet_en.html

Marie Skłodowska-Curie Actions in Horizon 2020



New actions 2014 – 2020

Proposed Budget (2014-2020): € 5.75 billion

- MCA will continue as the Marie Skłodowska- Curie Actions (**MSCA**)
- Funding levels ~maintained
- Broad Schemes ~maintained
- Simplification in Implementation

Marie Curie Action		Objective
Initial training of researchers <i>(1900 M€)</i>	Initial Training Networks (ITN)	Improve career perspectives of early stage researchers (ESR) in both public & private sector
Life-long training and career development <i>(1170–1400 M€)</i>	Intra-European Fellowships (IEF)	Career development of experienced researchers (ER) (e.g. diversification of skills/competencies; integrate a stable position after mobility)
	Career Integration Grants (CIG)	
	Co-funding of regional, national, international programmes (COFUND)	
Industry dimension <i>(250-450 M€)</i>	Industry-Academia Partnerships and Pathways (IAPP)	Open and foster dynamic pathways between public research organisations and private research commercial enterprises
International dimension <i>World fellowships (1170–1400 M€)</i>	International Outgoing Fellowships (IOF)	Reinforce the extra-European dimension of the European Research Area (ERA) through mobility, training, knowledge transfer and cooperation
	International Incoming Fellowships (IIF)	
	International Research Staff Exchange Scheme (IRSES)	

Main objective

Ensure the optimum development and dynamic use of Europe's intellectual capital in order to generate new skills and innovation

Rationale

- Encourage new, creative types of training
- Identify excellent talents in research and innovation in international competition
- Make best researchers in Europe and the world work together across countries, sectors and disciplines
- Create a whole new mind-set in Europe, crucial for entrepreneurship and innovation



- Bottom-up approach
- Supporting researchers careers
- Fostering key skills and competences
- Mobility, both trans-national and inter-sectoral
- Excellent employment and working conditions (EU Charter and Code for Researchers)
- Broad definition of industry involvement
- Gender balance and equal opportunities
- Strong emphasis on outreach activities and communicating research



- ~ 65.000 researchers to be supported, including 25.000 PhD candidates
- ~ 200.000 scientific publications in high impact peer-reviewed journals
- ~ 1.500 patent applications
- ~ 100 spin-offs created
- ~ 350-400 new regional / national / international programmes to be created targeting international and intersectoral training, and career development of research and innovation staff

<http://ec.europa.eu/research/mariecurieactions/>

- Based on European Strategy Forum on Research Infrastructures (ESFRIs)
- Funds for:
 - Study phase
 - Networking
- No support for new infrastructures






http://ec.europa.eu/research/infrastructures/index_en.cfm

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 SMEs to create growth and jobs.

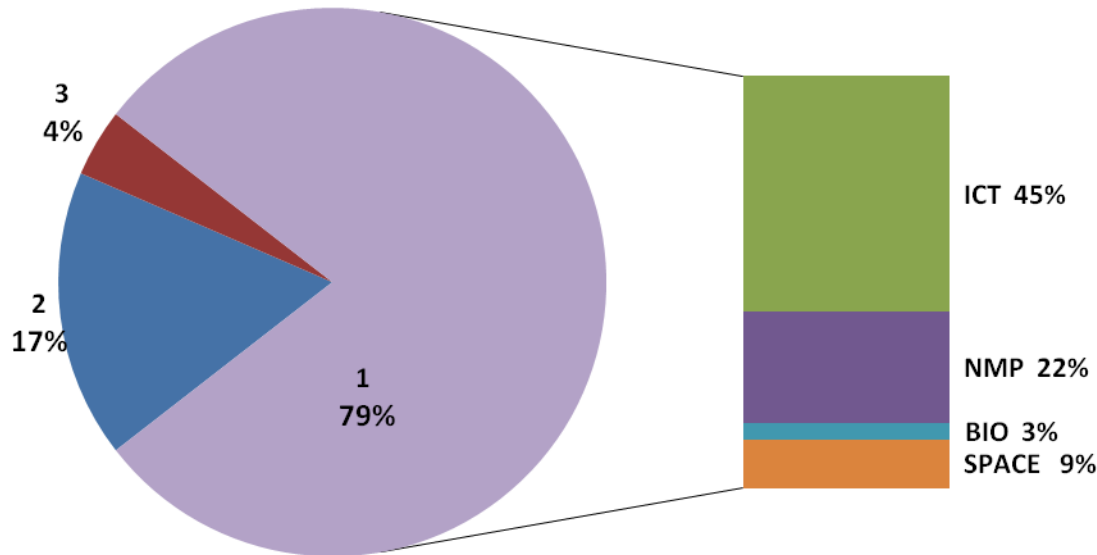


Industrial Leadership (million euro, 2014-2020)

<p>Leadership in enabling and industrial technologies</p> <p><i>(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</i></p>	<p>12 400</p> 
<p>Access to risk finance</p> <p><i>Leveraging private finance and venture capital for research and innovation</i></p>	<p>2 600</p> 
<p>Innovation in SMEs</p> <p><i>Fostering all forms of innovation in all types of SMEs</i></p>	<p>600 complemented by (excepted 15% of societal challenges LEIT) and</p>  <p>‘Access to risk finance’ with strong SME focus</p>

3. Innovation in SMEs: New SBIR-like scheme

1. Leadership in enabling and industrial technologies



2. Access to risk finance: private equity, venture capital, seed money

Graph obtained with data from previous slide

Why:



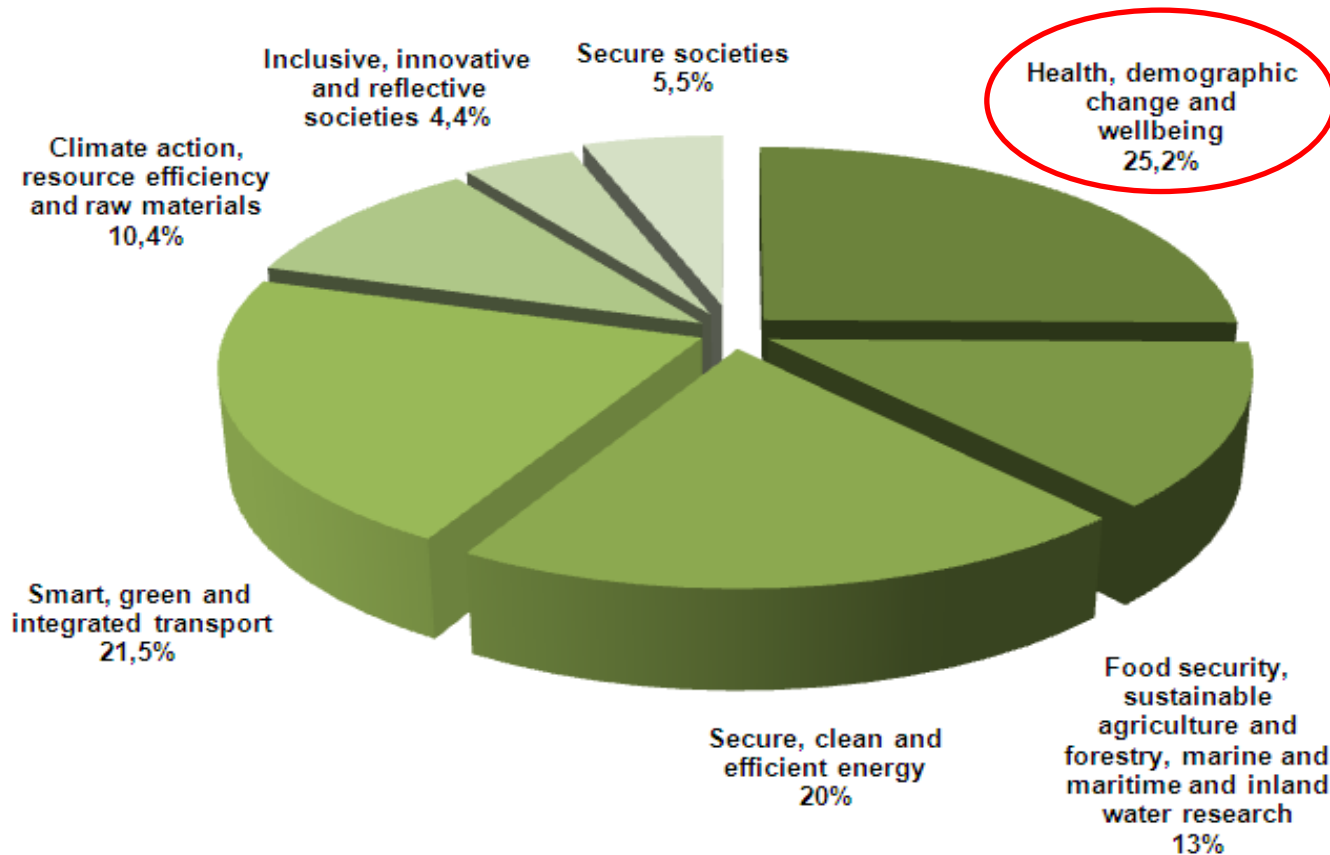
- Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport etc) cannot be achieved without innovation.
- Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities.
- Promising solutions need to be tested, demonstrated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

Societal Challenges (million euro, 2014-2020)



<u>Health, demographic change and wellbeing</u>	6 800
European bioeconomy challenges: Food security, sustainable agriculture and forestry, marine and maritime and inland water research	3 500
Secure, clean and efficient energy*	5 400
Smart, green and integrated transport	5 800
Climate action, resource efficiency and raw materials	2 800
Europe in a changing world - inclusive, innovative and reflective societies	1 200
Secure societies – protecting freedom and security of Europe and its citizen	1 500

***Additional € 1 788m for nuclear safety and security from the Euratom Treaty activities (2014-2018). Does not include ITER.**



Graph obtained with data from previous slide

HORIZON 2020

€70.2 billion

(*budget is subject to change)

Excellent Science

European Research Council (ERC)

Marie Skłodowska-Curie Actions (MSCA)

Future Emerging Technology (FET)

European Research Infrastructure (ERI)

Industrial Leadership

Leadership in enabling and industrial technologies

Access to risk finance

Innovation in SMEs

Societal Challenges

Health, demographic change, and wellbeing

Food security, sustainable agriculture & forestry, marine & maritime research & inland water research

Secure, clean & efficient energy

Smart, green & integrated transport

Climate action, resource efficiency & raw materials

Inclusive, innovative & reflective societies

Secure Societies

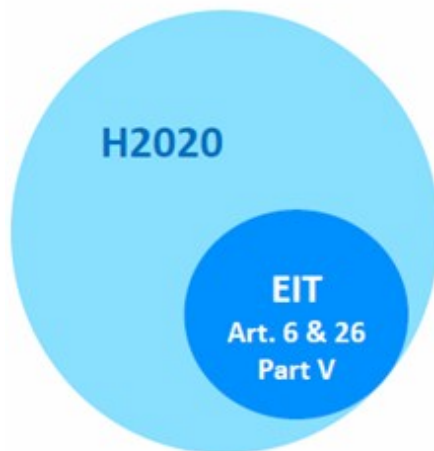
Spreading excellence and widening participation

Science with and for society

European Institute of Innovation and Technology (EIT)

Non-nuclear direct actions of the Joint Research Centre (JRC)

The EIT in Horizon 2020

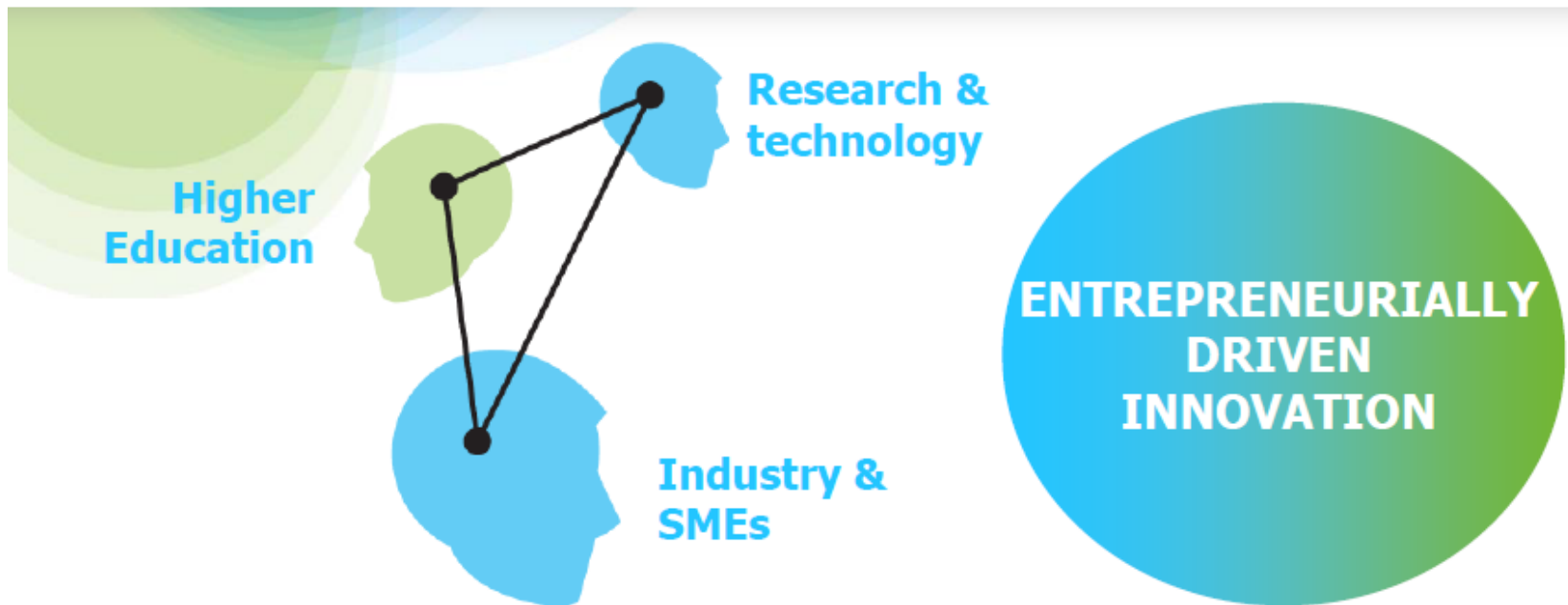


- Why?
 - Alignment of priorities
 - Synergies
 - Knowledge triangle
- Main principles
 - Two waves of KICs (2014, 2018)
 - Mid-term review
 - Budget

1.54 bn €
2014-17

1.65 bn €
2018-20

THE EIT PROPOSITION FOR INNOVATION: INTEGRATING THE KNOWLEDGE TRIANGLE



Actors within the knowledge triangle are at the core of the **innovation web** beyond the traditional collaborative R&D consortia

Future KIC themes (latest proposal)

1st wave: 2014	<i>Innovation for healthy living and active ageing</i>
	<i>Raw materials – sustainable exploration, extraction, processing and recycling</i>
2nd wave: 2016	<i>Food4future</i>
	<i>Added value manufacturing</i>
3rd wave: 2018	<i>Urban mobility</i>

"As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners".

- **Joint Research Centre** is the scientific and technical arm of the European Commission
- Providing the scientific advice and technical know-how to support a wide range of EU policies
- JRC has seven scientific institutes

<http://ec.europa.eu/dgs/jrc/>



Innovative Medicines Initiative



E D C T P



ERANETS

- New **balance between trust and control – fewer audits**
- Moving from several **funding rates** for different beneficiaries and activities to just two
- Replacing the four methods to calculate overhead or "indirect cost" with a **single flat rate**
- **Successful applicants to get working more quickly:**
reduction of average time to grant by 100 days (current average of around 350 days under FP7)



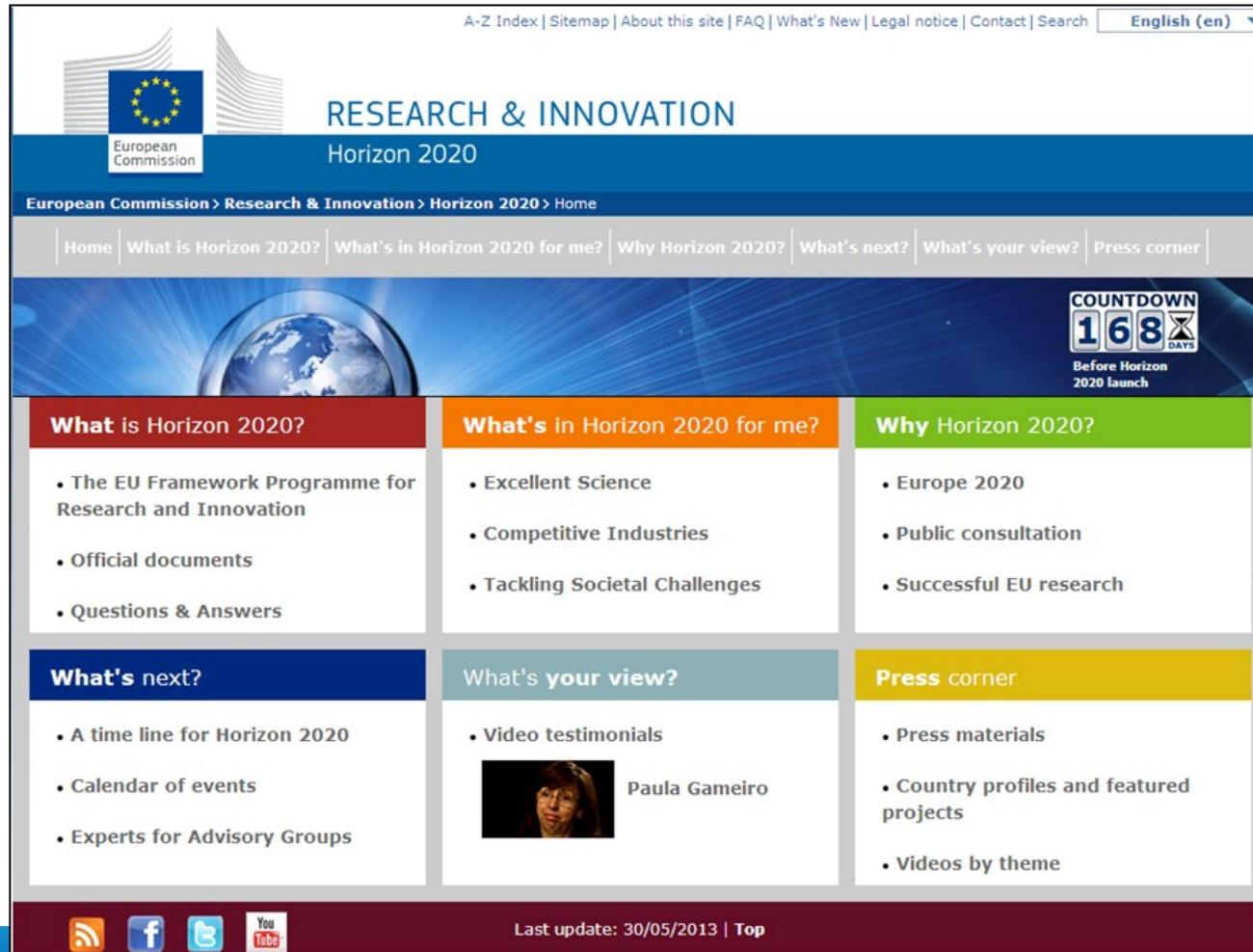
- **Integrated approach** - around 15% of the total budget for societal challenges and LEITs to go to SMEs
- Simplification of particular benefit to SMEs (e.g. single entry point)
- A new **SME instrument**, building on the SBIR model, will be used across all societal challenges as well as for the LEITs
- **'Access to risk finance'** will have a strong SME focus (debt and equity facility)



- Comitology - Strategic panel for Health?
- 15% or 20% for SME?
- Real indirect costs?
- Reduce time to grant



<http://ec.europa.eu/research/horizon2020>



The screenshot shows the official website for Horizon 2020. At the top, there is a navigation bar with links for 'A-Z Index', 'Sitemap', 'About this site', 'FAQ', 'What's New', 'Legal notice', 'Contact', and 'Search'. A language dropdown menu is set to 'English (en)'. Below this is the European Commission logo and the text 'RESEARCH & INNOVATION Horizon 2020'. A breadcrumb trail reads 'European Commission > Research & Innovation > Horizon 2020 > Home'. A secondary navigation bar includes links for 'Home', 'What is Horizon 2020?', 'What's in Horizon 2020 for me?', 'Why Horizon 2020?', 'What's next?', 'What's your view?', and 'Press corner'. A large banner features a globe and a 'COUNTDOWN 168 DAYS Before Horizon 2020 launch' graphic. The main content area is organized into a grid of six colored boxes, each with a title and a list of links: 'What is Horizon 2020?' (red), 'What's in Horizon 2020 for me?' (orange), 'Why Horizon 2020?' (green), 'What's next?' (blue), 'What's your view?' (teal), and 'Press corner' (yellow). The 'What's your view?' box includes a photo of Paula Gameiro. At the bottom, there are social media icons for RSS, Facebook, Twitter, and YouTube, along with the text 'Last update: 30/05/2013 | Top'.



Thank you for
your attention!

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