



HORIZON 2020

The Societal Challenges (SC) and the position of SC2 (*"Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy"*)



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Table of contents

- The 7 Societal Challenges (SC) of the Horizon 2020
- The position of SC2
- From SC2 to individual topics



Horizon 2020

The 7 Societal Challenges (SC)



Table of contents

- Where do the SC fit into Horizon 2020?
- Why "Societal Challenges" as a H2020 priority?
- The 7 Societal Challenges (SC)

Table of contents

- ***Where do the SC fit into Horizon 2020?***
(a bridge with the previous presentation)
- Why "Societal Challenges" as a priority?
- The 7 Societal Challenges (SC)

Horizon 2020: 3 priorities / pillars



1. Health, demographic change and wellbeing

2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

3. Secure, clean and efficient energy

4. Smart, green and integrated transport

5. Climate action, resource efficiency and raw materials

6. Inclusive, innovative and reflective societies

7. Secure societies

€ 79 billion from 2014 to 2020

HORIZON 2020 BUDGET (in current prices)

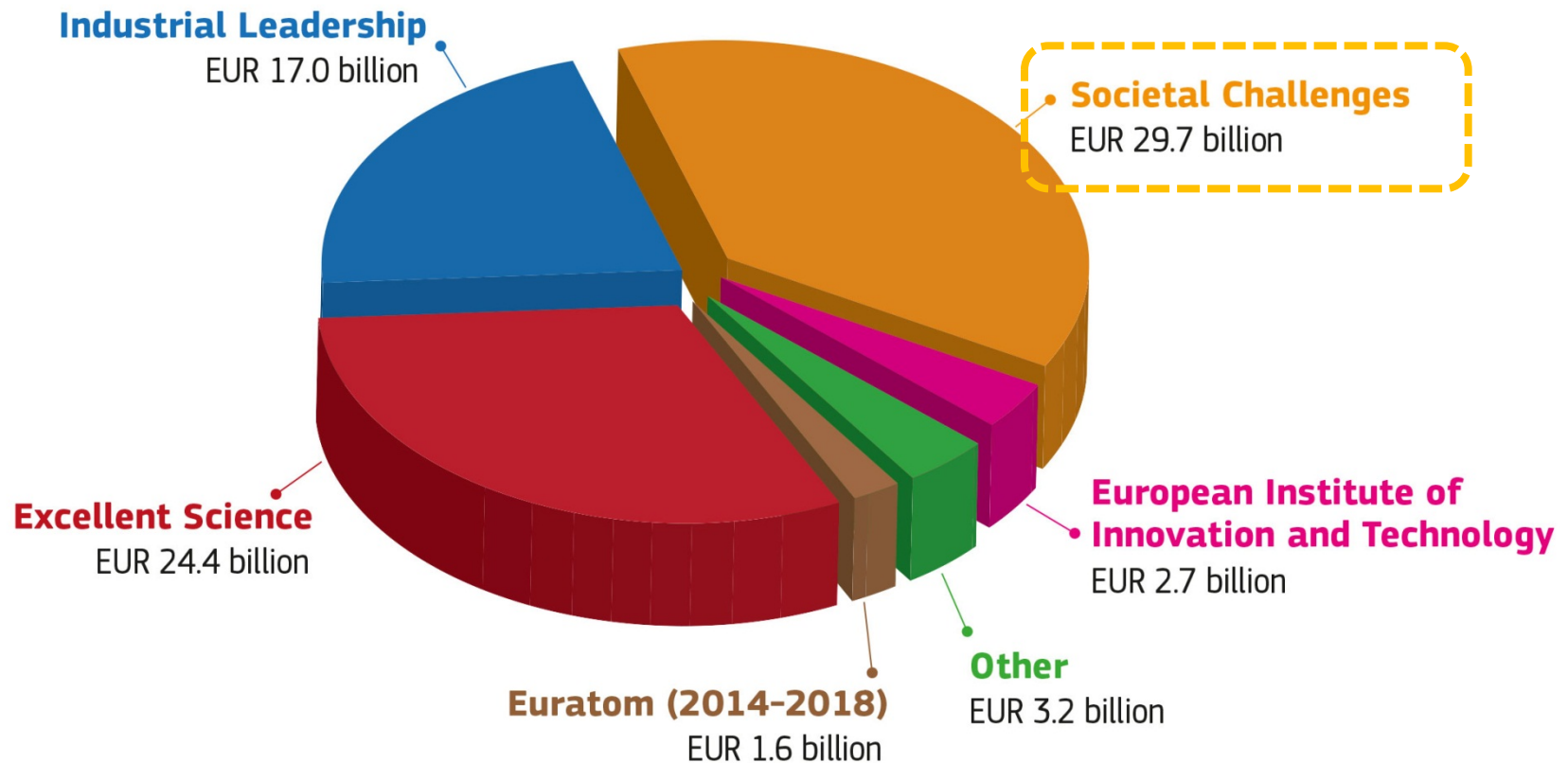


Table of contents

- Where do the SC fit into Horizon 2020?
- ***Why "Societal Challenges" as a H2020 priority?***
(Why should we / you care?)
- The 7 Societal Challenges (SC)

Real challenges, society-wide implications

- Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, etc.) cannot be achieved without **innovation**
- Grand societal challenges call for **common solutions**
- Breakthrough solutions come from **multi-disciplinary collaborations**, and need to be **tested, demonstrated and scaled up**
- **A clear political will** by EU presidencies and the European Parliament to tackle these societal challenges

Table of contents

- Where do the SC fit into Horizon 2020?
- Why "Societal Challenges" as a H2020 priority?
- ***The 7 Societal Challenges (SC)***
(Per SC: Why, How, and Budget)

SC1: "Health, demographic change and wellbeing"

Why? "Health is wealth"

- Promote lifelong health and wellbeing for all
- Strengthen competitiveness of European health-related industries

How? Focus on:

- Fostering good health in ageing Europe (nutrition, physical activity,...)
- Protecting citizens from health threats (pandemics, bioterrorism, climate change,...)
- Supporting dynamic health systems and new technologies (e-health, genomics, biotech,...)



Budget 2014-2020? € 7,472 billion
HORIZON 2020



SC2: "Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research, and the Bioeconomy"

Why? "Move to a low-carbon economy"

How? Focus on:

- Achieving food safety for all Europeans and decreasing the burden of food- and diet-related diseases (promote healthy and sustainable diets, consumer education, food industry innovation,...)
- Addressing the pressures on natural resources
- Improving animal health
- Reducing food waste by 50 % by 2030

Budget 2014-2020? € 3,851 billion



SC3: "Secure, Clean and Efficient Energy"



Why?

- Europe is too dependent on the rest of the globe for its energy
- Need for a new industrial revolution and low-energy economy

How? Focus on:

- Efficient energy use that translates into 20% savings by 2020
- Ensuring the free movement of energy (a more integrated, interconnected and competitive market,...)
- Secure, safe and affordable energy for citizens and businesses
- Making a technological shift to low-carbon technologies

Budget 2014-2020? € 5,931 billion



SC4: "Smart, Green and Integrated Transport"



Why?

Transport drives employment, economic growth and global exports, but our transport systems and habits are unsustainable.

How? Focus on:

- Making transport more sustainable (resource efficiency,...)
- Making transport and transport systems seamless (better mobility, less congestion, greater safety and security,...)
- Keeping transport competitive
- Making transport research responsive (socio-economic research and forward-looking activities for policy-making)

Budget 2014-2020? € 6,339 billion



SC5: "Climate Action, Environment, Resource Efficiency and Raw Materials"



Why?

Encouraging a more sustainable use of our limited natural resources is essential both for our well-being and for Europe's economic development.

How? Focus on:

- Investing in innovation for a green economy
- Waste (the whole production and consumption cycle, from waste prevention, the design of products and processes for recyclability, to re-use and waste disposal)
- Water (approaches to water management and climate change)

Budget 2014-2020? € 3,081 billion

SC6: "Europe in a changing world: Inclusive, Innovative and Reflective societies"



Why?

In Europe, an estimated 80 million people are at risk of poverty, and 14 million young people are not in education or employment.

How? Focus on:

- New ideas, strategies and governance structures
- The young generation
- Reflective societies
- Europe as a global actor
- New forms of innovation (public, social learning,...)

Budget 2014-2020? € 1,310 billion



SC7: "Secure Societies"



Why?

- Ensuring security while safeguarding privacy and fundamental rights is an essential task of any administration
- Competitive, EU-based security industries can make a substantial contribution to the quality of life in EU societies

How? Focus on:

- Overcoming market fragmentation (creation of EU-wide standards, the harmonisation of certification procedures,...)
- Reducing the gap from research to market
- Better integration of societal considerations (impact of security technologies on fundamental rights,...)

Budget 2014-2020? € 1,695 billion
HORIZON 2020





Horizon 2020

The position of SC2 (Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy)



Table of contents

- Past: Western Balkan Countries in FP7 KBBE Theme
- Present: the bridge between FP7 and SC2
- Future: the structure of SC2

Table of contents

- **Past: *Western Balkan FP7 involvement***
- Present: the bridge between FP7 and SC2
- Future: the structure of SC2



FP7 project "WBC INCO-NET"



- **Purpose**: to enhance the integration of the Western Balkan countries (WBC) in the European Research Area
- **Activities in 2008-2013**
 - to support the bi-regional dialogue on science and technology (S&T);
 - to identify RTD potentials and priorities for take-up in FP7 and other European programmes;
 - to enhance participation of WBC researchers in European projects.
- **More info**: see <http://wbc-inco.net>

FP7 project "WBC INCO-NET"



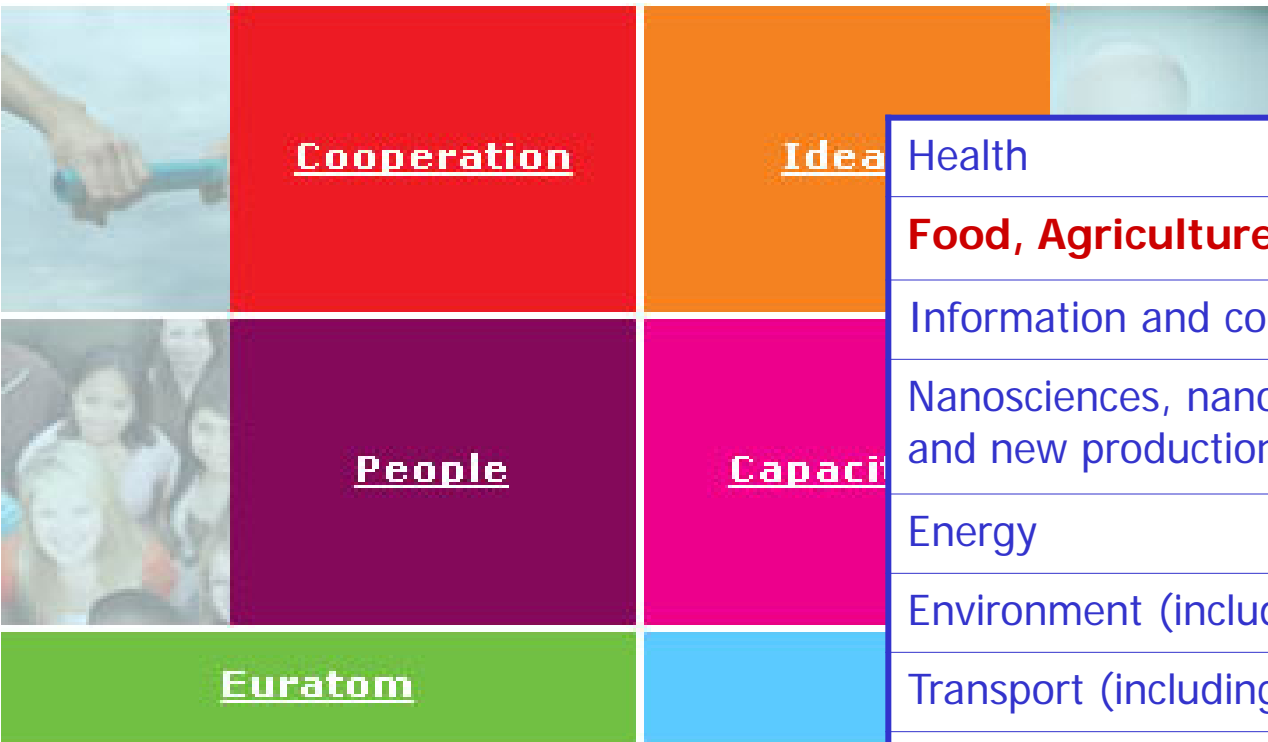
- Activities in 2008-2013 (ctd.)
 - implementing capacity building measures and accompanying training and networking activities.
 - to analyse innovation needs and barriers to innovation in the WBC;
 - to exchange information and best practices on innovation policies;
 - to prepare an Action Plan for further WBC cooperation
 - Final conference + brokerage event: 27 – 28 March 2014, Vienna

More info: <http://wbc-inco.net>

FP7: The 7th Framework Programme

Specific Programmes

10 Cooperation themes



Health

Food, Agriculture and Fishery, Biotechnology

Information and communication technologies

Nanosciences, nanotechnologies, materials and new production technologies

Energy

Environment (including climate change)

Transport (including aeronautics)

Socio-economic sciences and the humanities

Space

Security



Western Balkan participation in the FP7 KBBE Theme



FP7 KBBE Theme (452 projects – 1.55 BN EUR)

➤ Western Balkan countries:

- Nr. of eligible proposals (with at least one WB participant): 277
- Nr. of projects funded with at least 1 WB participant: 30 (8 projects > 1 WB participant)
- EU financial contribution: 3.97 M EUR

Source: CORDA database, 16/02/2014



Western Balkan participation in the FP7 KBBE Theme: areas/examples of projects



- ✓ Agro/food, market policy analyses (**AGRIPOLICY, FOCUS-BALKANS, GLAMUR, VEG-I-TRADE**)
- ✓ Animal Welfare (**AWARE, ECONWELFARE**)
- ✓ Food Safety (**AQUAVALENS, FOODSEG, VITAL**)
- ✓ Innovative technologies (**CHANCE, SUSMILK**)
- ✓ Nutrition/health (**BACCHUS, BASEFOOD, FUNCFOOD, ODIN, TERPMED**)

FP7 project "Focus Balkans"



- **Coordinator:** ETH Zürich (CH) 14 partners – 6 WB (3 RS, 1 BiH, 1 FYROM, 1 MNE)
- **Duration:** 36 months (October 2008 – September 2011)
- **EU contribution:** EUR 2,614,110
- The main recommendation of the project: to increase the scientific-based knowledge in **three main general directions:**
 - ✓ Research about consumers: food intake, food behaviour, consumers' beliefs, expectations, preferences, motives and attitudes.
 - ✓ Research about the communication and the information policies and tools (efficiency, targeting, content, up-taking, etc.).
 - ✓ Market research: structure, functioning, rules, organisations, standards, investments, etc.

More info: <http://www.focus-balkans.org/>

FP7 project AGRIPOLICY

Enlargement Network for AgriPolicy Analysis

Coordinator: Euroquality (France) 22 partners – 4 WB (1 RS, 1 BiH, 1 FYROM, 1 MNE)

Duration: 24 months (June 2008 – May 2010)

EU contribution: EUR 998,219

The **main outcome** of the project: tools for agricultural markets and rural development in a pre-accession phase:

- Analysis of the agricultural policy in Western Balkan Countries
- Analysis of different options for agricultural markets and rural development
- Analysis of the dairy supply chain

More info: <http://www.agripolicy.net>

Table of contents

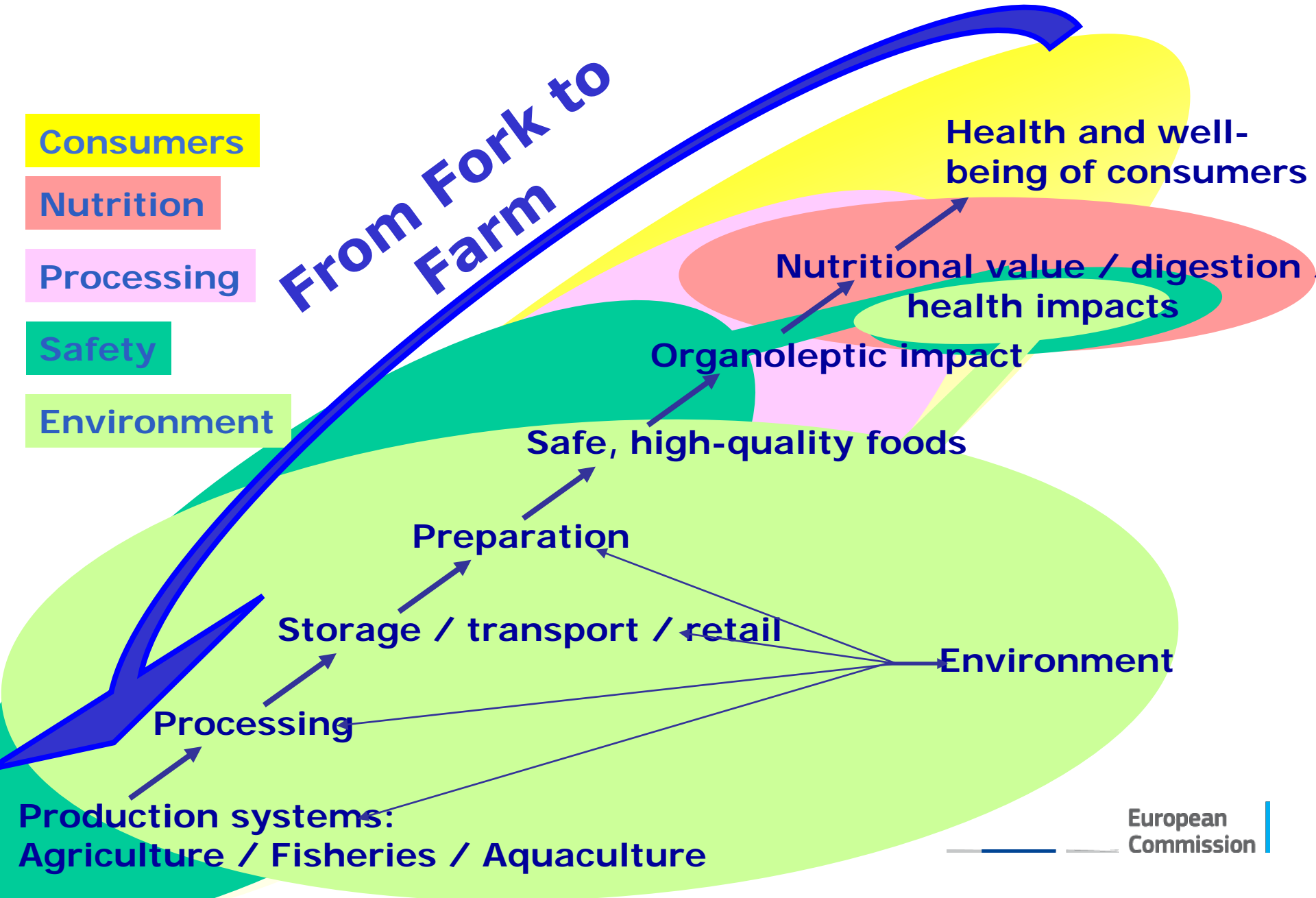
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From FP7-Cooperation to H2020-SC2

- **2007-2013:**
 - New societal trends and research priorities
 - Learning from FP7 successes and shortcomings
- **Example:...** (see next slide)



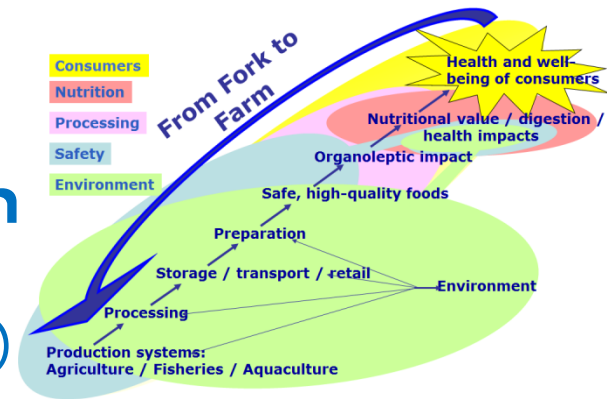
"Fork to farm" in FP7: 5 R&D domains



Trends in 2007 – 2013

- More multidisciplinary approach

(in last vs. first FP7-Cooperation calls)



- Other (than FP7 – Cooperation) successful

R&D&I-related funding programmes, e.g.:

- *Other FP7 programmes* (People, Ideas, Cooperation)
- *ERA-NET*, e.g. SUSFOOD (16 countries)
- *CIP 'Eco-innovation'* – 'Food & Drinks sector' as 1 of 5 priority areas

From FP7-Cooperation to H2020-SC2

- 2007-2013:
 - New societal trends and research priorities
 - Learning from FP7 successes and shortcomings
- Example:... (see previous slide)
- Need for an improved, broader funding programme
- Moving from R&D (FP7) to R&D&I (Horizon 2020)
- Update of FP7 cooperation theme "Food, Agriculture and Fishery, Biotechnology" to Horizon2020-SC2

Table of contents

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Horizon 2020: 3 priorities / pillars



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EU terminology

- Can be challenging...
- What is the difference between a Horizon 2020:
 - Pillar / priority?
 - Societal Challenge (SC)?
 - Work Programme (WP)?
 - Call?
 - Topic?
- ... and how are they linked?



Horizon 2020

From SC2 to individual topics



Table of contents



Horizon 2020: 3 priorities / pillars



1. Health, demographic change and wellbeing

2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy

3.851 billion euros 2014-2020

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New approach to work programmes and calls (compared to FP7)

- **More strategic**
- **Two year work programmes**
(2014-2015: > € 15 billion)
- **Less prescriptive calls**
(64 calls in 2014)
 - ✓ Broader and fewer topics
 - ✓ First call deadlines as from March 2014





Work Programme **2014**

Funding for calls

Societal Challenges Pillar: ~ € 2.8 billion

1. Health, demographic change and wellbeing (2 calls) € 600 million
2. **Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research and the Bioeconomy (3 calls) € 300 million**
3. Secure, clean and efficient energy (4 calls) € 600 million
4. Smart, green and integrated transport (3 calls) € 540 million
5. Climate action, environment, resource efficiency and raw materials (3 calls) € 300 million
6. Europe in a changing world – inclusive, innovative and reflective societies (5 calls) € 112 million
7. Secure Societies (4 calls) € 200 million

In addition

- Spreading Excellence and Widening Participation (3 calls) € 50 million
- Science with and for Society (4 calls) € 45 million

Work Programme **2014**

Funding for calls

Societal Challenges Pillar: ~ € 2.8 billion

1. Health, demographic change and wellbeing (2 calls) € 600 million
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7. Secure Societies (4 calls) € 200 million

In addition

- Spreading Excellence and Widening Participation (3 calls) € 50 million
- Science with and for Society (4 calls) € 45 million

SC2, WP 2014-2015: 3 calls

Sustainable Food Security

- Sustainable food production systems
- Safe food and healthy diets and sustainable consumption
- Global drivers of food security

Blue Growth: unlocking the potential of Seas and Oceans

- Sustainably exploiting the diversity of marine life
- New offshore challenges
- Ocean observation technologies/systems
- Horizontal aspects, socio-economic sciences, engagement with society,...

Innovative, Sustainable and Inclusive Bioeconomy

- Sustainable agriculture and forestry
- Sustainable and competitive bio-based industries
- Cross-cutting actions covering all the activities

Sustainable Food Security (call 2014-2015)

SFS Call

Sustainable food production systems: 11 topics
(9 RIAs + 1 CSA + 1 SME instrument)

Safe food, healthy diets and sustainable consumption: 6 topics
(4,5 RIAs + 0,5 CSA + 1 IA)

Global drivers of Food security: 3 topics
(3 RIAs)

“,5” : sometimes different options per topic

Horizon 2020 support mechanisms

"Type of Actions"

- RIA: Research & Innovation Action
- IA: Innovation Action
 - Prototyping, testing, demonstrating, piloting,...
 - *May include limited R&D activities*
- CSA: Coordination & Support Action (no R&D)
- SME instrument: 3-phase instrument (feasibility study, innovation project, indirect support for commercialisation)

Blue Growth: unlocking the potential of Seas and Oceans (call 2014-2015)

BG Call

Sustainably exploiting the diversity of marine life: 4 topics
(3 RIAs+ 1 IA)

New offshore challenges: 3 topics
(2 RIAs+ 1 CSA)

Ocean observation technologies/systems: 2 topics
(2 RIAs)

Horizontal aspects, socio-economic sciences, innovation, engagement with society and ocean governance across the Blue growth focus area: 7 topics
(1 RIA+ 5 CSAs + 1 SME instrument)

Innovative, Sustainable and Inclusive Bioeconomy (call 2014-2015)

ISIB Call

Sustainable Agriculture and Forestry: 4 topics
(3 RIAs+ 1 CSA)

Sustainable and competitive bio-based industries: 3 topics
(2 RIAs + 1 CSA)

Cross-cutting actions covering all activities: 5 topics
(4 CSAs + 1 ERA-NET Cofund)

Topic Structure: 4 main parts

1. **Specific Challenge**: What is the problem, why should we care?
2. **Scope**
 - Framework / focus for solution
 - Less prescriptive than FP7
 - Sometimes *different scope and/or support mechanisms* (A, B,...) in 1 topic
3. **Expected Impact**
 - if your project is succesful, which impacts should be reached?
 - Another way to focus the topic
4. **Type of Action** the support mechanism



SC2: Sustainable Food Security Call

Examples of topics:

1. Sustainable food production systems

- SFS-1-2014/2015: Sustainable terrestrial livestock production
- SFS-2-2014/2015: Sustainable crop production
- SFS-8-2014/2015: Resource-efficient eco-innovative food production and processing
- SFS-9-2014: Towards a gradual elimination of discards in European fisheries

2. Safe food and healthy diets and sustainable consumption

- SFS-12-2014: Assessing the health risks of combined human exposure to multiple food-related toxic substances
- SFS-13-2015: Biological contamination of crops and the food chain
- SFS-14-2014/2015: Authentication of food products
- SFS-15-2014: Proteins of the future
- SFS-16-2015: Tackling malnutrition in the elderly
- SFS-17-2014: Innovative solutions for sustainable novel food processing

3. Global drivers of food security

- SFS-19-2014: Sustainable food and nutrition security through evidence based EU agro-food policies

For further information

- **NCP network** (National Contact Points)

- **Participant Portal**

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

- **Helpdesk**

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

- **Expert evaluators needed!**

<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>

- **Learn more about Horizon 2020**

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

Thank you for your attention!