



Horizon 2020

Strategic Programming
Societal Challenge 5 –
Sustainable management of resources

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Three priorities



- Health, demographic change and wellbeing
- Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- **Climate action, environment, resource efficiency and raw materials**
- Inclusive, innovative and reflective societies
- Secure societies
- Science with and for society
- Spreading excellence and widening participation

Societal Challenge 5



Objective: *"to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems."*



Broad lines of activities (2014-2020):

- **Fighting and adapting to climate change**
- **Sustainably managing natural resources and ecosystems**
- **Sustainable supply of non-energy and non-agricultural raw materials**
- **Transition towards a green economy through eco-innovation**
- **Global environmental observation and information systems**
- **Cultural heritage**

Strategic programming: objectives

- Provides coherent multi-annual implementation:
 - integration of EU priorities and policy objectives in priority setting.
 - improved impacts – through sequencing and integration of funded activities
 - EU added value – i.e. in relation to MS activities
- Content based on the Specific Programme
- Feature of 2014/15 WP preparation
- 2016/17: focus adapted to new Commission (Junker agenda; new policy initiatives)

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**Work Programme
2016-2017**



SC5 Advisory Group: 2016-17 priorities



SC5 was broken down into four priority areas:

- **Systemic Eco-innovation**
- **Climate Services**
- **Nature-Based Solutions**
- **Sustainable Supply of Raw Materials**
+ integration of SSH disciplines throughout.

Cross-cutting issues of particular relevance:

- **cross-links between priorities needed**
- **environment and health**
- **sustainable provision of food and water**
- **migration**
- **impacts of geopolitics for climate change and resources**
- **cultural heritage**
- **Earth Observation/monitoring**

Sector-level challenges that raise specific environmental issues.

SC5 Advisory Group: 2016-17 priorities



Points to consider in programming:

- the need for **a broader narrative** that aims at creating societal value in addition to economic value;
- **no single magic bullet**; only consistent, long term support for many actions;
- to be successful, need not a technology-only agenda, but a **systemic one that makes a step change in trans-disciplinarity**, and incentivises inter- and trans-disciplinarity;
- the need for **capacity building** within and beyond the research community to network and engage different actors and stakeholders and to scale up to the European level smaller scale solutions, without pushing a one-size-fits-all solution across a diverse Europe.
- sufficient attention to **education** required;
- policy-makers need to monitor and address the **obstacles facing innovators**;
- the need for development of effective **science-policy and science-society interfaces** at all levels of governance.

Consulting external stakeholders: process



- **Public consultation** open 7 May - 23 June 2014
- Based on **set of questions + supporting documents** (1st Report of SC5 Advisory Group, Horizon 2020 Specific Programme)
- **Publically available on Horizon 2020 website**
- **Upon invitation:** (ETPs, foundations, NGOs, regional stakeholders, financial institutions...)
- **'Yammer' community:** <http://tinyurl.com/greenRTD>
- **Raw materials:** consolidated contacts with stakeholders via **European Innovation Partnership (EIP) on raw materials**
- **Summary of results published:** <http://ec.europa.eu/programmes/horizon2020/en/news/results-stakeholder-consultation-horizon-2020-societal-challenge-5-climate-action-environment>

Consulting external stakeholders: main messages



- **General consensus on need for:**
 - ✓ holistic/systemic approach, inter-disciplinarity, broad stakeholder participation;
 - ✓ transition towards a circular economy/systemic eco-innovation, including changing production and consumption patterns.
- **Areas to focus on:**
 - ✓ Cities, seen as "living labs" for new lifestyles and technologies.
 - ✓ Systemic eco-innovation/Circular economy
 - ✓ Links between environment, climate change, food, energy and health
- **Sector-specific:**
 - ✓ Water
 - ✓ Recycling and efficient use of raw materials
 - ✓ Air pollutants
 - ✓ CO2 capture, storage and exploitation
 - ✓ Cultural heritage
 - ✓ Climate change research & development of services

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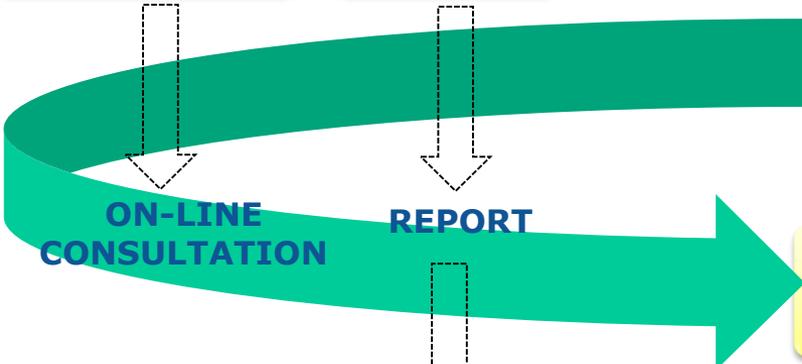
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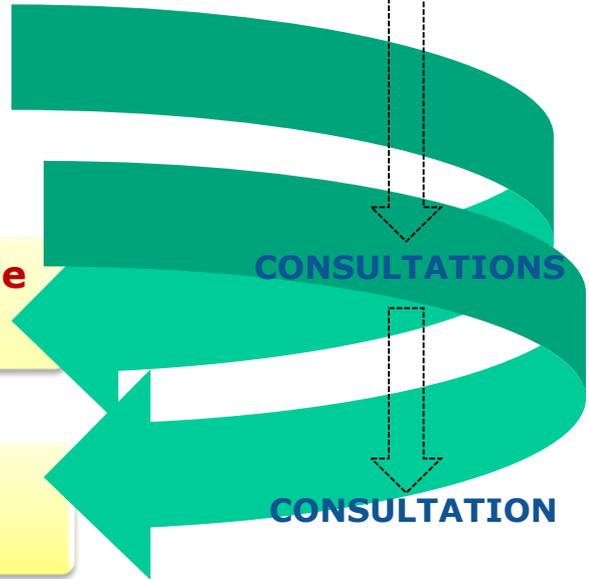
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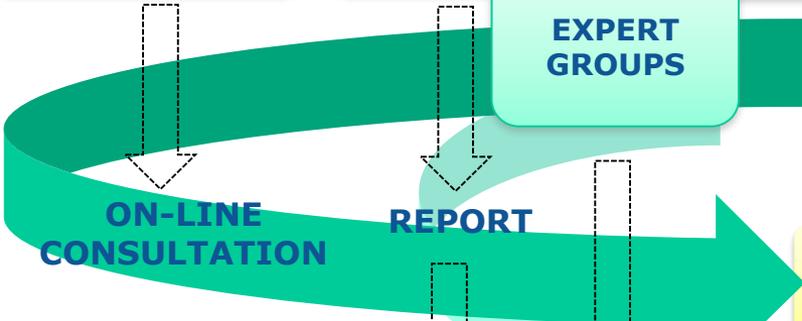
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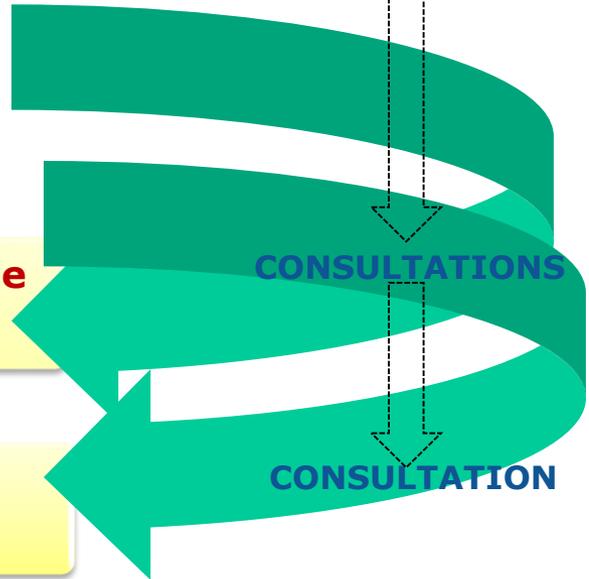
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Nature-based solutions: current concept

Nature-based solutions to societal challenges are inspired or supported by nature, while maintaining or enhancing natural capital.

They are cost-effective, resource efficient, multi-purpose and multi-beneficial and provide systemic, locally attuned responses that simultaneously benefit environmental, social and economic objectives.



Societal Challenges

- ✓ *Growth, jobs and human well-being*
- ✓ *Environmental challenges*
 - *unsustainable urbanization & related human health issues*
 - *degradation and loss of natural capital and associated ecosystem services*
 - *climate change*
 - *natural disasters*
 - *multi risk management*

Interrelated priorities

- ✓ *re-naturing and greening cities*
- ✓ *adapting to climate change*
- ✓ *disaster risk reduction*
- ✓ *restoring degraded natural ecosystems*
- ✓ *nature-based solutions for human health and well-being, social integration*
- ✓ *integrated land use and management strategies (cross-cutting)*



Systemic approach to ensure economic, social and environmental resilience

- ✓ *Evidence-based*
- ✓ **Multi-purpose and multi-benefit**
- ✓ *Explore alternative and innovative sustainable solutions with market potential*
- ✓ **Trans-disciplinary and multi-stakeholder**
- ✓ *Innovative governance, innovative financing, innovative business models*
- ✓ **Use of other instruments: grants, demonstration projects, public procurement,...**
- ✓ *Linking up with other sources of funding: structural funds, LIFE, EIB, ...*



Working approach and methodology

- ✓ 15 high level experts (expertise on personal capacity)
- ✓ Chairperson
- ✓ Rapporteur

Meetings & related events

- ✓ Second meeting: 3 October 2014, guest speakers
- ✓ European Parliament NBS High level event (Sept 14)
- ✓ **E-Consultation** – in collaboration with EPBRS & synthetron
- ✓ **Citizen Consultation**
- ✓ **Stakeholder Conference** – 2&3 December
- ✓ Final Deliverable: Written Report with conclusions and recommendations and an Executive summary

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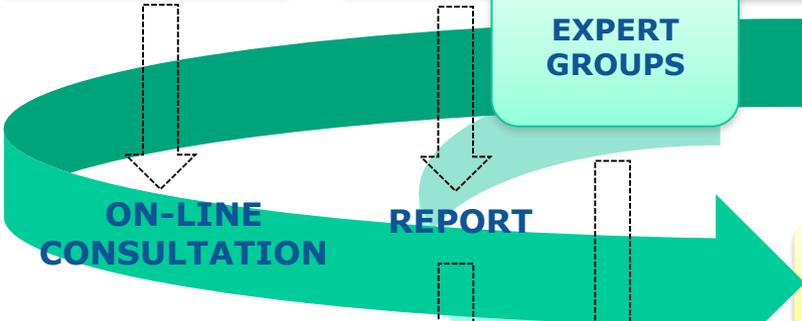
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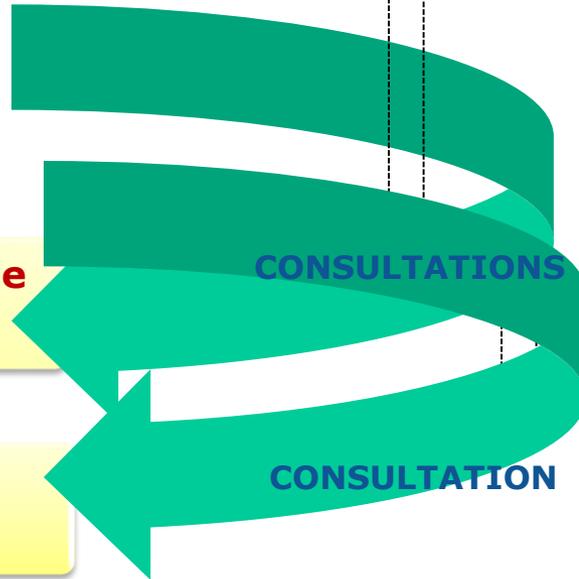
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EIP, JPI, ...



FP projects



**Citizen
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Many others...

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Many others...

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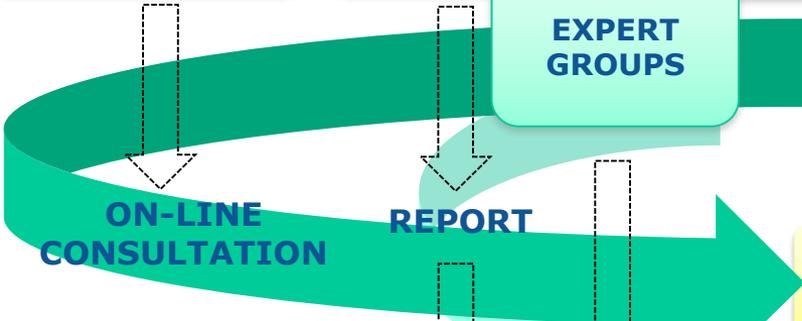
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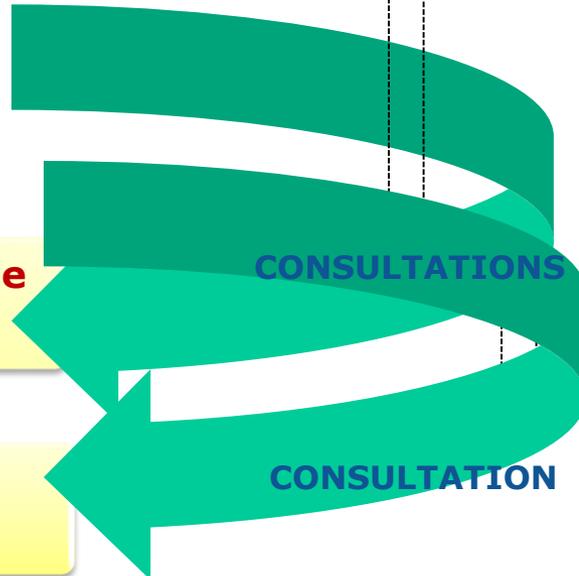
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The targets in Horizon 2020

Horizon 2020 Regulation (Reg. EU/1291/2013 of 11 December 2013, recital #10) :

"Climate action and resource efficiency are mutually reinforcing objectives for achieving sustainable development. The specific objectives relating to both should be complemented through the other specific objectives of Horizon 2020.

As a result it is expected that **at least 60% of the overall Horizon 2020 budget** should be related to **sustainable development**.

It is also expected that **climate-related expenditure should exceed 35% of the budget**, including mutually compatible measures improving resource efficiency."



Communication 'A budget for Europe' (COM/2011/500)

- Commission commitment to mainstream **climate change** into EU spending programmes and to direct at least 20% of the general budget of the Union to climate-related objectives.
- **Environment:** "To maximise synergies between different policy objectives, a tracking procedure for environment-related expenditure similar to that proposed for climate-related expenditure is envisaged."
- "As regards **biodiversity**, the 'Rio markers' established by the OECD and already used by the Commission for external instruments will be integrated in the existing methodology for measuring performance used for EU programmes."

What?

Overview:

- Distinct, but chronologically simultaneous exercises for tracking climate action, sustainable development & biodiversity objectives
- Categorisation of funded activities according to degree of contribution to each of these objectives
- Application of weighting factor corresponding to the category allocated to actual expenditure per activity (EU contribution to project)
- Calculation of proportion of overall expenditure contributing to climate action, sustainable development & biodiversity objectives respectively

Applying the markers to biodiversity

- Where protecting, promoting or restoring biodiversity or natural ecosystems, or adding to natural capital, is the principal (primary) objective -> allocate **100%**.
These are topics/projects for which biodiversity objectives can be identified as being fundamental in the design and impact of the activity, and are an explicit objective of the activity.
- Where protecting, promoting or restoring biodiversity or natural ecosystems, or adding to natural capital, is a significant but not predominant objective -> allocate **40%**.
These are topics/projects for which – although important – biodiversity objectives are not one of the principal reasons for undertaking the activity.
- Topics/projects not targeted at biodiversity objectives -> allocate **0%**.



**Thank you for your
attention**

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