



HORIZON 2020

Societal Challenge 5

"Climate action, Environment, Resource Efficiency and Raw Materials"

Work Programme 2016-2017

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Horizon 2020: addressing Europe's challenges

- **Investing in research and innovation 2014-2020**
- **Budget of €77 billion**
- **Contributing to the Juncker Commission's policy agenda as a core component of Europe 2020, Innovation Union & European Research Area**
- **Coupling research to innovation to maximise impact**

Societal Challenge 5: Climate action, environment, resource efficiency and raw materials



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."*

Societal Challenge 5: new focus for 2016-17



- ✓ **Increased emphasis on delivering innovative solutions**
- ✓ **Transformative agenda**
- ✓ **Systemic approach to innovation**
- ✓ **Unlocking private and public investment in future solutions**
- ✓ **Large-scale demonstration projects with replication potential**

Societal Challenge 5: key objectives for 2016-2017

Climate action

- Climate services
- Low-carbon Europe
- Arctic dimension

Nature-based solutions:

- for territorial resilience
- for sustainable cities

Raw materials

Systemic eco-innovation for a circular economy

Mainstreaming water R&I

Sustainable growth by harnessing:

- Earth observation data
- Cultural heritage

Societal Challenge 5: contributing to the Juncker Commission's policy agenda



- ✓ A new boost for **jobs, growth and investment**
- ✓ A deeper and fairer internal market with a **strengthened industrial base**
- ✓ A resilient Energy Union with a **forward looking climate change policy**
- ✓ **A stronger global actor**

✓ **Open Innovation** ✓ **Open Science** ✓ **Open to the world**

Nature-based solutions



- ✓ inspired or supported by nature
- ✓ economic, social and environmental benefits and resilience
- ✓ systemic, resource-efficient locally adapted interventions
- ✓ more nature and natural features into cities and landscapes

➤ **positioning Europe as world leader in innovation through nature-based solutions**

Nature-based solutions

- how?



- EU framework and evidence base for cost-effectiveness and benefits of nature-based solutions
- co-design, co-implementation and upscaling of systemic, multi-purpose solutions through large scale demonstration projects, 'living labs'
- a market for nature-based solutions (demand and supply)
- innovative multi-stakeholder platform
- international co-operation on nature-based solutions to global challenges

- **Sustainable cities through nature-based solutions**
- **Nature-based solutions for territorial resilience**

Nature-based solutions

- where to find topics



- Topics on **Sustainable cities through nature-based solutions**
 - ✓ in cross-cutting call 'Smart and Sustainable Cities'
 - ✓ Total indicative budget in 2016: €60M
- Topics on **Nature-based solutions for territorial resilience**
 - ✓ in call 'Greening the Economy'
 - ✓ Total indicative budget in 2016: €8M

For both calls:

- Calls open: 10 Nov. 2015
- First deadline: 8 March 2016

Sustainable cities through nature-based solutions: 2016 topics

Cross-cutting call 'Smart and Sustainable Cities':

- SCC-02-2016: **Demonstrating innovative nature-based solutions in cities (IA)**
 - Demonstrating innovative nature-based solutions for climate and water resilience in cities
- SCC-03-2016: **New governance, business, financing models and economic impact assessment tools for sustainable cities with nature-based solutions (urban re-naturing) (RIA)**
- SCC-04-2016: **Sustainable urbanisation (ERA-NET Cofund)**



Nature-based solutions for territorial resilience: 2016 topics

Call 'Greening the economy':

- SC5-09-2016: **Operationalising insurance value of ecosystems (RIA)**
- SC5-10-2016: **Multi-stakeholder dialogue platform to promote innovation with nature to address societal challenges (CSA)**



Cultural heritage for sustainable growth



- ✓ A more dynamic approach to cultural heritage, beyond mere conservation
- ✓ cultural heritage as a production rather than a cost factor and a strategic resource
- ✓ cultural heritage as a catalyst for regeneration, sustainable development, economic growth and quality of life
- ✓ European reference framework and robust EU-wide evidence

Cultural heritage for sustainable growth: 2016 topic

Call 'Greening the economy':

- **Cultural heritage as a driver for sustainable growth (IA)**
 - Heritage-led urban regeneration

Total indicative budget for this topic in 2016: €10M

Topic opens: 10 Nov. 2015

First deadline: 8 March 2016



Nature-Based Solutions (NBS) for Sustainable Cities: Demonstration projects

- **NBS=> living solutions: NO bio-mimicry, NO bio-materials**
- NBS are **designed** to bring more nature and natural features and processes into cities, landscapes and seascapes, through **systemic interventions => engineered solutions**
- 2016 Focus: NBS for **climate and water resilience in cities**

Nature-Based Solutions (NBS) for Sustainable Cities: Demonstration projects

- Large scale **multi-stakeholder 'living labs' demonstration** projects;
- **'Front-runner'** and **'follower'** cities approach (at least 2 'front-runner' and 3 'follower' cities from MS and/or AC);
- 'Front-runner' cities as 'living labs' that:
 - ✓ **invest**, deploy, test, demonstrate **NBS/city re-naturing**;
 - ✓ **mentor**, assist and advise **'follower'** cities;
 - ✓ **Contribute** to **EU-evidence repository** on NBS;
- 'Follower' cities commit to **develop, within the duration of the project, an urban re-naturing plan** integrating demonstrated **NBS 'customised'** to their context

Nature-Based Solutions (NBS) for Sustainable Cities: Demonstration projects

Area of intervention

- Pertinence of area of intervention (city, district, town, neighbourhood etc.) will be assessed against:
 - ✓ **Impact of intervention** in addressing the challenge for the **larger city context**;
 - ✓ **Replicability and scalability potential** of the **solution** and **systemic approach** (**solution**, business, governance and finance **models**, participatory **processes** and **social innovation**);

Nature-Based Solutions (NBS) for Sustainable Cities: Demonstration projects

Proposals **should provide evidence** about:

- **systemic trans-disciplinary approach** (co-design, co-development, co-implementation) and **multi-level innovation**, e.g. technological (nature-based), business, finance and governance models, engagement processes and social innovation;
- long-term **political** and **financial commitment**;
- **mobilisation and leveraging of investments** securing adequacy and sustainability of financing;
- Effective '**mentoring**' by 'front-runners' to 'followers'

Nature-Based Solutions (NBS) for Sustainable Cities: Demonstration projects

- Effective **documentation** and **dissemination** of the re-naturing actions and their impacts;
- A well-defined **timeline** for proper assessment of the impacts (both benefits **and co-benefits**) of the “intervention”;
- Robust **monitoring** and **documentation: at least 2 years** within the project; **longer term** commitment will count **favourably** for the proposal **evaluation**;
- Effective **clustering** with other NBS-relevant projects

Calendar and caveats

Expected adoption date: Mid-October 2015

The draft WP has been made public just before the adoption process of the work programme to provide potential participants with the currently expected main lines of the Work Programme 2016-2017. It is a working document not yet endorsed by the Commission and its content does not in any way prejudice the final decision of the Commission.

The adoption and the publication of the work programme by the Commission are expected in mid-October 2015. Only the adopted work programme will have legal value. This adoption will be announced on the Horizon 2020 participant portal.

Information and topic descriptions presented today may not appear in the final work programme; likewise, new elements may be introduced at a later stage. Any information disclosed by any other party shall not be construed as having been endorsed by or affiliated to the Commission. The Commission expressly disclaims liability for any future changes of the content of the draft Work Programme.



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for your attention!**

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