Innovating Cities, nature-based solutions and heritage alive

SC5-13-2018 Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems

CE-SC5-03-2018 Demonstrating systemic urban development for circular and regenerative cities

SC5-17-2018 Towards operational forecasting of earthquakes and early warning capacity for more resilient societies

SC5-18-2018 Valuing nature: mainstreaming natural capital in policies and in business decision-making

SC5-19-2018 International network to promote cultural heritage innovation and diplomacy

LC-CLA-04-2018 Resilience and sustainable reconstruction of historic areas to cope with climate change

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Horizon 2020 Work Programme for Research & Innovation 2018-2020

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

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I.3 – Sustainable Management of Natural Ressources

DG Research and Innovation

Research and Innovation

2

Horizon 2020 Work Programme 2018-2020

- **Challenge-based approach**, with **high-impact calls** and **fewer, broader topics,** each supporting a balanced portfolio of projects

- **Making research and innovation more visible** through communication, open access to research results, new emphasis on **data management**

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

Work Programme 2018-2020

Focus:

- ✓ moving to a **greener**, more **resource efficient** and **climate-resilient economy** in sync with the **natural environment**
- ✓ demonstrating strong commitment to support the UN's Sustainable Development Goals (SDGs) and the targets of the COP21 Paris Agreement

2 multiannual calls:

> "Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement"

> "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Total indicative budget 2018-2020 €1.1bn

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

- **Budget in** 2018 €219.7 million

- **2018 topics open:** 7 November 2017

- **First call deadline:** 27 Feb 2018

✓ **Innovating cities** for sustainability and resilience

✓ Protecting and leveraging the value of our natural and cultural assets: **nature-based solutions, disaster risk reduction and natural capital accounting;**

✓ Protecting and leveraging the value of our natural and cultural assets: **Heritage alive**

European Commission

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Innovating cities for sustainability and resilience: Objectives

➢ enable cities to design and implement **transition pathways** to becoming **inclusive, resilient, sustainable, low-carbon and resource efficient**

➢ enhancing cities' innovation capacity and enabling them to act as **hubs of innovation**

➢ **strengthen sustainability of urban areas globally**, and particularly in **China**

➢ support EU endeavours to implement the SDGs, particularly SDGs 11, together with Habitat III **New Urban Agenda** and Urban Agenda of EU

SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems - EU-China collaboration (RIA) (1/2)

- Models, tools, DSS, methodologies, guidelines, standards, indicators ….. for the **design, construction, deployment** and **monitoring** of **nature-based solutions** and **restoration and rehabilitation** for **urban and peri-urban ecosystems**;

- **Systemic "approaches"** embedded in **integrated urban planning** and city-making process to enhance urban **ecological coherence** and **ecological integrity**;

- Review and capitalise upon **existing experiences** and **good practices** in Europe and China;

- Methodologies for assessment of **cost-effectiveness** of measures, accounting for **totality of the benefits** by restored ecosystems;
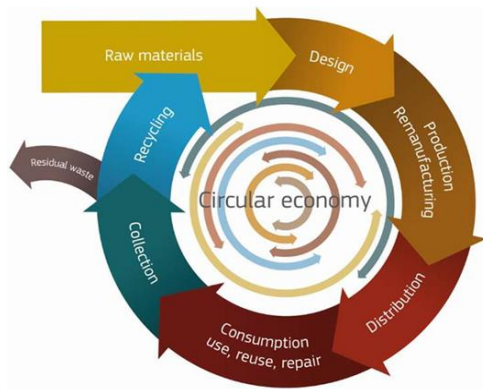
SC5-13-2018-2019: Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems - EU-China collaboration (RIA) (2/2)

- Raise **awareness** through **outreach** and **education** activities about benefits from nature;

- **Multi-stakeholder**, **multi-disciplinary** (including social sciences and humanities) and **balanced EU-China consortia**

- Foster **participatory engagement** and **co-creation** in urban ecological restoration actions;

- Indicative budget per proposal: **EUR 5 million**

Eligibility and admissibility conditions

- Consortia must comprise at least **three participants from China**

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Connecting economic and environmental gains – the circular economy (C.E.): Objectives

➢ **enhanced capacity of cities to embrace C.E. approaches**

➢ contribute to implementing the **Circular Economy Action Plan** and key high-level EU priorities, including jobs, growth and investment, climate and energy, strengthened industrial base

➢ support EU endeavours to implement the SDGs, particularly **SDGs 12, 6, 11 and 13**, and **Habitat III New Urban Agenda**

European Commission

CE-SC5-03-2018: Demonstrating systemic urban development for circular and regenerative cities (IA) (1/3)

To enable cities to design and implement **circular urban processes** and **regenerative practices - urban and peri-urban areas** including surrounding **industrial areas** and **commercial ports**;

Develop and implement:

- innovative **urban planning** approaches, practices and instruments (e.g. 3D real time geospatial data and planning tools, new design approaches, business models, innovative governance) allowing for the **design** and **implementation** of **circular** and **regenerative processes** and the sustainable **(re)using** and **(re)programming** of existing **buildings**, **open spaces** and **(infra)structures** for circular initiatives**;**

- Demonstrate **innovative solutions** to **close the loop** of urban **material** and **resource flows** within and **across sectors and nexuses;**

- Innovative **monitoring,** new **indicators** and **digital solutions** enabling **continuous monitoring** for processes **optimisation** and rapid **management interventions**;

European Commission

CE-SC5-03-2018: Demonstrating systemic urban development for circular and regenerative cities (IA) (2/3)

- **Multi-stakeholder** consortia**, innovative local governance structures** and **networks and interdisciplinary** practices, including SSH to stimulate **behavioural changes** and enhance **entrepreneurship;**

- **Sustainable data platforms** for **open access data** on impact of the intervention;

- Projects **must** engage in substantial **networking**, **training** and **mentoring** towards **cities outside the project** to disseminate experience, knowledge and deployment practices and promote **upscaling, uptaking** and **replication** of the solutions;

- Resources must be foreseen for **clustering**;

- Indicative budget per project: **EUR 10 million**

CE-SC5-03-2018: Demonstrating systemic urban development for circular and regenerative cities (IA) (3/3)

Eligibility and admissibility conditions

At least 4 cities from different Member States and/or Associated Countries to ensure coverage of diverse contexts across the EU

Grant Conditions

As an exception from General Annex H for grants awarded under this topic and type of action, **funding rate for direct costs of construction and installation of "infrastructure-targeted" interventions is 20% of the eligible costs.** Beneficiaries' own resources and/or mobilisation and leverage of additional investments beyond Horizon 2020, whether private or public, should make up the remaining investment costs and should secure economic and financial sustainability for the execution of the project.

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Protecting and leveraging the value of our natural and cultural assets: Nature-based solutions, disaster risk reduction and natural capital accounting

- **SC5-17-2018: Towards operational forecasting of earthquakes and early warning capacity for more resilient societies (RIA)**

- **SC5-18-2018: Valuing nature: mainstreaming natural capital in policies and in business decision-making (CSA)**

  a) Valuing nature: developing and implementing **natural capital and ecosystem accounts** in EU Member States and Associated Countries

  b) **Operationalisation** of natural capital accounting in **business decisions**

SC5-17-2018: Towards operational forecasting of earthquakes and early warning capacity for more resilient societies (RIA) (1/2)

- To enhance **real time seismic risk reduction capacity** through improvements of **observational**, **forecasting modelling** and **testing- validation** capabilities;

- **Multi-disciplinary** research to better understand **conditions** leading to an **earthquake** and identify the **properties to be monitored as precursors** to the event;

- New generation of **early warning systems**, integrating **innovative concepts and technologies**, **decisional expert systems** using **local and regional information** (including social and economic data) and capable of **triggering automatic safety actions** and **reach people before ground shaking**;

SC5-17-2018: Towards operational forecasting of earthquakes and early warning capacity for more resilient societies (RIA) (1/2)

- Move from **single probabilistic hazard forecasting** to **complex, short-term risk forecasting;**

- **Communication systems** and **structures** to improve **dialogue** between science and relevant users and authorities;

- Strong **European and international scientific collaboration** is needed to make substantial progress in the domain;

- Indicative budget per project: **EUR 6 million - EUR 8 million**

SC5-18-2018: Valuing nature: mainstreaming natural capital in policies and in business decision-making (CSA)

To enhance the **capacity** of **authorities** and the **private sector** to better **assess, value** and **mainstream biodiversity, ecosystems and their services** into **accounting** and **decision making frameworks**

a) **Develop and implement natural capital and ecosystem accounts in EU Member States and Associated Countries**

b) **Operationalisation of natural capital accounting in business decisions**

SC5-18 a) Develop and implement natural capital and ecosystem accounts in EU Member States and Associated Countries (1/2)

Make optimal use of existent data and in line with the **SEEA-EEA recommendations** and capitalizing on the work of **KIP-INCA** partners (ENV, ESTAT, JRC, EEA, RTD) and **MAES:**

• Implement **European/international guidance standards** in European countries;

• **Capacity building** and **mentoring** activities among countries **advanced** in natural capital and ES accounts and others at early stages of development of NC accounts;

SEEA: *System of Environmental-Economic accounting;*

KIP-INCA: *Knowledge Innovation Project-Integrated Natural Capital Accounting*

SC5-18 a) Develop and implement natural capital and ecosystem accounts in EU Member States and Associated Countries (2/2)

- **Experienced countries** can **further improve** their accounts through experimentation of new approaches, testing new valuation techniques, etc.

- Strong **commitment** and/or **participation** from **competent** public authorities (Ministries or environmental agencies) and National Statistical Offices is highly recommended, since <u>the project should lead to publication of accounts in national statistics</u>.

- Indicative budget per project: **EUR 3 million**

SC5-18 b) Operationalisation of natural capital accounting in business decisions

- Facilitate the implementation of the "**Natural Capital Protocol"** at **corporate level**;

- Establish a **network of networks** ("Valuing Nature Programme and Network") linking relevant networks and intiatives to:

  - Take stock of ongoing initiatives;

  - Build a **community of practice** (e.g. businesses, administrations, academia and key stakeholders);

  - Recommend ways to **operationalise** and **mainstream** natural capital, including NBS, Green Infrastructures and biodiversity, in companies **decision making** and **business models**;

- Indicative budget per project: **EUR 2 million**

Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

Protecting and leveraging the value of our natural and cultural assets – Heritage alive: Objectives

➢ position **cultural heritage (CH)** at centre of **sustainable development**

➢ unlock potential of CH as **strategic living resource** and **driver** for economic growth and job creation, social cohesion and environmental sustainability

➢ contribute to **protection and preservation** of CH in **Europe and beyond**

➢ **mobilise investments** in the sector leading to **emergence of global market**

➢ support to **SDG 11** and its target (strengthening efforts to protect and safeguard the world's cultural & natural heritage)

SC5-19-2018: International network to promote cultural heritage innovation and diplomacy (CSA) (1/2)

Establish an **international network** that, through **continuous dialogue,** will capitalise on **EU expertise** to **leverage value** of cultural heritage assets, **promote** heritage-led **innovation** for sustainable development and provide international expertise

- Map, review, document and promote **successful heritage-led "paradigms"** as catalysts for sustainable development, new **governance, business and finance models**;

- Provide expertise, assistance and **capacity building** particularly in **countries where heritage is at risk**

- Develop **guidelines to leverage CH** potential for diplomacy

- **Multi-stakeholder composition** (e.g. researchers, policy-makers, businesses (including SMEs), societal and cultural institutions, NGOs and CSOs, public and private organisations, investors, experts, innovators and citizens)

European Commission

SC5-19-2018: International network to promote cultural heritage innovation and diplomacy (CSA) (1/2)

- identify **priorities**, knowledge **gaps** and **research and innovation needs** and **barriers** and propose ways to overcome them;

- **International cooperation** is encouraged, particularly with **EU Neighbourhood countries and with countries** where **cultural heritage is at risk**;

- Indicative budget per proposal: **EUR 2.5 to EUR 3 million**

- Envisage resources for **clustering;**

Call: "Building a low carbon climate resilient future: climate action in support of the Paris Agreement"

Climate adaptation, impacts and services

- LC-CLA-03-2018: Climate change impacts in Europe (RIA)

  a) Climate change impacts on health in Europe

  b) Global climate change impacts from a European perspective

- **LC-CLA-04-2018: Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events (RIA)**

LC-CLA-04-2018: Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events (RIA) (1/3)

- For **historic areas and their surroundings** (both in urban and rural environments):
  - Increase **proactively** their **resilience** through 'preparedness' interventions;
  - In case of **damage** or **destruction**, secure their **sustainable and integrated reconstruction** and **recovery** (in line with "build back better" principle of Sendai Framework)
- Proposals can address sustainable reconstruction and recovery **and/or** enhanced resilience

LC-CLA-04-2018: Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events (RIA) (2/3)

- Take stock of existing experiences in **Europe and globally** and **recommend** interventions, including **replicability conditions**;

- **Test and pilot** novel cost-effective **solutions** to enhance the **resilience** of **buildings** and **whole historic areas to natural hazards including climate change related events;**

- Tools, models, plans, methodologies etc. for **vulnerability assessment** and prediction of **impacts** of climate, global and environmental change on historic areas;

- Knowledge and evidence-based **guidelines** for **reconstruction** within a **participatory and community–based context** and **new government** and **finance models**;

LC-CLA-04-2018: Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events (RIA) (3/3)

- **Multi-disciplinary** consortia, including **societal** stakeholders and **community-based** partners – role of **SSH essential**;

- Envisage also **resources for clustering** with other relevant projects

- **Indicative budget** per proposal: **EUR 5 million - EUR 6 million**

Eligibility and admissibility conditions

At least 3 historic areas from different Member States and/or Associated Countries to cover diversity of natural and climate change hazards in different regions of Europe

Thank you!

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More information:

www.ec.europa.eu/research

Participant Portal:

www.ec.europa.eu/research/participants/portal/desktop/en/home.html

SC5 social media network on 'Yammer':

http://www.tinyurl.com/greenRTD

European Commission