

# SUSTAINABLE MANAGEMENT OF SOIL AND LAND

■ Maria Yeroyanni (European Commission, DG Research & Innovation)



Health

Societal Demands

Cities

Jobs

World Soil Day

European Commission

**Closing ceremony**

Maria Yeroyanni, European Commission,  
DG Research & Innovation

Soil

Ecosystem Services

Spatial Planning

Farming

Natural Capital

Resources

Land-Use

Water

Inspiration

# **Sustainable Management of Soil and Land (including Land Degradation)**



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**DG Research and Innovation**

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## **Conclusions(1)**

- Presented the SRIA and discussed pressing gaps in European research on Sustainable Soil, Land Management (including Land Degradation) bringing together researchers, policy makers, funders, end-users, public sector, SMEs and large enterprises wishing to innovate and contribute to a greener, more socially cohesive, smarter and more competitive Europe.



## Conclusions(2)

- Land and Soil play a vital role in meeting societal needs for urban, peri-urban design and planning, food, drinking water, energy, shelter, infrastructure, climate change, non-renewable natural resources and environmental justice.
- Land and soil, including water and sediment, are finite resources facing growing pressures and conflicts over their use that contribute to over-consumption of natural capital.

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## Conclusions(3)

- Integrated Spatial Planning and Sustainable Land-use and Soil management needed to balance the supply of natural capital and ecosystem services with society's demands.
- Multi-stakeholder approach, multi-disciplinary, coordinated.
- Need for strong Soil, R&I policies all over Europe and support of the implementation of the Strategic Research Agenda.

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## Conclusions(4)

- The Sustainable Development Goals of the UNO and the World Soil Charter of FAO and the Soil Thematic Strategy.
- The Communication "Europe 2020 strategy for smart, sustainable and inclusive growth", (2010), highlights the concept of "Territorial cohesion", within the flagship initiative "Innovation Union" and states that one of its objectives is "To develop a strategic research agenda focused on challenges such as (land management)".

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## Conclusions (5)

- The "Roadmap for a Resource Efficient Europe" of 2011 stresses the importance of land use and sets that the rate of land take should be reduced to zero by 2050.
- The Seventh Environment Action Programme of 2014 recognises that soil degradation is a serious challenge and points to sustainable land management and to an appropriate level of soil protection.

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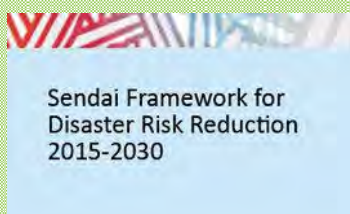
## Conclusions(6)

- Urban Agenda for the EU includes the Sustainable use of land and nature-based solutions with the focus on urban sprawl, development of brownfields and on renaturing/greening urban areas.
- The European Soil Partnership is aiming towards federating all various stakeholders and institutions in Europe willing to adopt the principles of the World Soil Charter.

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PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21-CMP11



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Commission





#NewUrbanAgenda  
#InnovatingCities

“We will support science, research, and innovation, including a focus on social, technological, digital and **nature-based innovation**, robust science-policy interfaces in urban and territorial planning and policy formulation” [...]

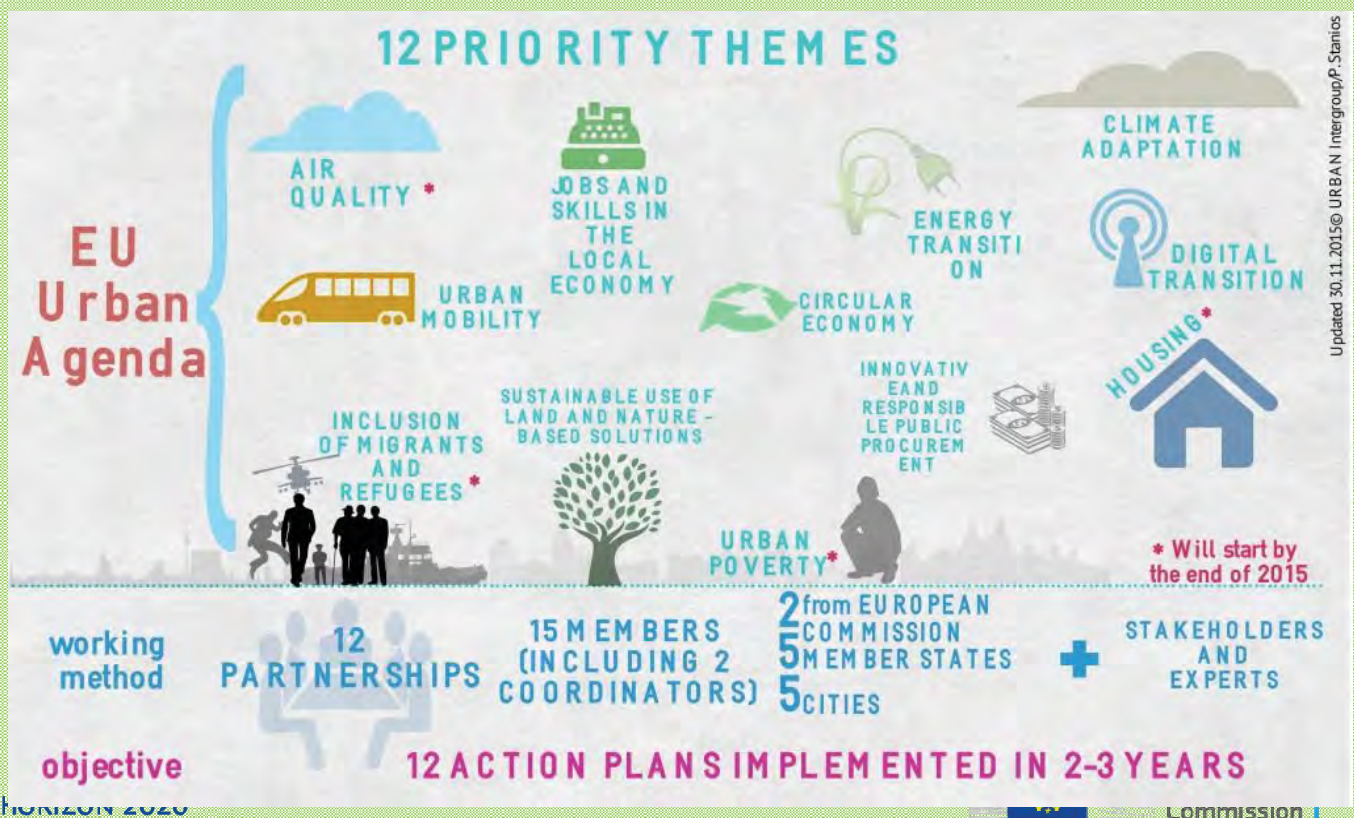
Quito Declaration on sustainable cities and human settlements for all - New Urban Agenda

United Nations Conference on Housing and Sustainable Urban Development - Habitat III - October 2016

Quito at night with Cotopaxi mountain © Santiago Cornejo

## Conclusions (7)

- Land is an important issue which deserves attention in the Urban Agenda for the EU and Global Agenda.
- Urban partnership on Sustainable Use of Land and NBS



## Conclusions(8)

- Urban and peri-urban issues, such as soil sealing, polluted soils, brownfields, soil and land degradation can be addressed through systemic solutions which have nature-based innovations at the intersection of technological, social, cultural, governance, financial ones and enhance the delivery of multi-benefit ecosystem services.
- Link with ongoing JPI, ERANETs, PRIMA Initiative



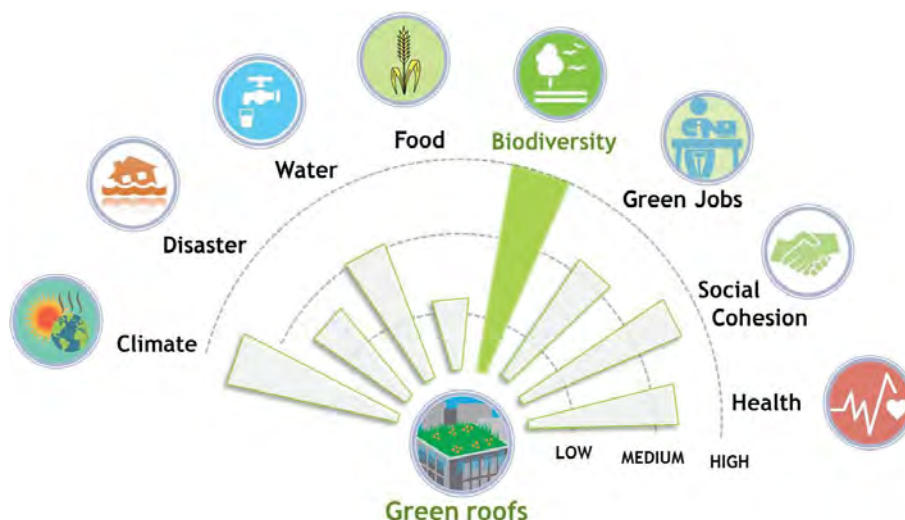
# Conclusions(9)

- Capitalise on existing knowledge (80 Meuro EU funded research)
- Deliver against H2020 objectives and the EU's political priorities and three O's
- Maximise Impact
- International Cooperation
- Communication Activities to disseminate and share knowledge

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## Nature-Based Solutions: economic, social and environmental benefits (& co-benefits)





## Sustainable cities through nature-based solutions: 2016 topics

- 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)

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## WP 2017 relevant topics:

**SCC-02-2017:** Nature-based solutions for inclusive urban regeneration (IA);

**SC5-08-2017:** Large-scale demonstrators on nature-based solutions for hydro-meteorological risk reduction (IA);

**SC5-21-2017:** Heritage-led rural regeneration (IA);

## WP 2017 relevant topics: Structure

- **SC5-22-2017:** Innovative financing, business and governance models for adaptive re-use of cultural heritage (RIA);
- **SC5-32-2017:** Biodiversity scenarios (ERA-NET COFUND);
- **SC5-26-2017:** Pre-commercial procurement on soil decontamination (PCP)

Building a *community of practice*  
on Nature-Based Solutions for  
inclusive urban regeneration



## Horizon 2020: Creating a community of practice on NBS

<b>EKLIPSE NBS EWG</b>	CSA	SC5-09-2014	European Knowledge and Learning Mechanism to Improve the Policy-Science-Society Interface on Biodiversity and ESS
<b>INSPIRATION</b>	CSA	SC5-10b-2014	Towards a strategic research agenda on soil, land-use and land management in Europe
<b>ThinkNature</b>	CSA	SC5-10-2015	Development of a multi-stakeholder dialogue platform and Think tank to promote innovation with Nature based solutions
<b>NAIAD</b>	RIA	SC5-9-2015	Insurance Value of Nature
<b>Nature4Cities</b>	RIA	SCC-03-2015	New governance, business, financing models and economic impact assessment tools for sustainable cities with NBS
<b>Naturvation</b>		SCC-03-2015	
<b>CONNECTING</b>	IA	SCC-02-2016	Demonstrating innovative NBS in cities/ water and climate resilience
<b>GROW GREEN</b>		SCC-02-2016	
<b>UNALAB</b>		SCC-02-2016	
<b>Urban GreenUP</b>		SCC-02-2016	
<b>BiodivERsA3</b>	ERA-NET	SC5-09-2014	Consolidating the European Research Area on biodiversity and ecosystem services

## SCC-02-2016 cities involved



- **CONNECTING:** Front runner (red), follower (light red)
- **GROWGREEN:** Front runner (green), follower (light green)
- **UNALAB:** Front runner (blue), follower (light blue)
- **URBAN GREEN UP:** Front runner (purple), follower (light purple)



## EU Funds invested to cities through H2020

- ✓ 'Horizon 2020' has invested EUR 1.5 billion (2014-2017) on Research & Innovation city related actions:
- ✓ out of which EUR 435 million (2014-2017) devoted to innovation actions for Smart and Sustainable Cities.

\*Smart Cities and Communities lighthouse: 330 M EUR(2014-17) + Sustainable cities: 105 M EUR (2014-17).





## WP 2018 Calls

- ✓ **CE-SC5-03-2018: Circular and regenerative cities (per-urban spaces; innovative solutions for closing the loop of urban material and resource flows within the nexus of water, energy, food, air, ecosystem services, **soil**)**
- ✓ **Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement**  
**LC-CLA-02-2019: Negative emissions and **land-use based mitigation assessment****
- ◆ **Actions should analyse various land-use based mitigation options at global and regional level in relation to food, energy, water security, biodiversity and feedbacks between Land-use mitigation and climate change impacts.**



## WP 2018 Calls

- ✓ **Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement**  
**LC-CLA-02-2019: Negative emissions and **land-use based mitigation assessment****
- ✓ **LC-CLA-06-2019: Inter-relations between climate change, biodiversity and ecosystems (NBS& ecosystem conservation, restoration and management, to support climate change adaptation and mitigation strategies)**
- ✓ **LC-CLA-04-2018: Resilience and sustainable **reconstruction** of historic areas to cope with climate change and hazard events**





## WP 2018-2020, SC5 "Climate Action, Environment, Resource Efficiency and Raw Materials"

<https://ec.europa.eu/programmes/horizon2020/en/what-work-programme>

<https://ec.europa.eu/programmes/horizon2020/en/climate-action-environment-resource-efficiency-and-raw-materials-work-programme-2018-2020>



## EU Policy Context on Cities

### Urban Agenda for the EU – DG REGIO

<https://ec.europa.eu/info/eu-regional-and-urban-development/cities>  
Topic Page on Cities

The screenshot shows the 'Cities' topic page on the European Commission website. The page has a blue header with the European Commission logo and navigation links. The main content area is white with a blue sidebar on the left. The sidebar contains the title 'Cities' and a brief description: 'See how the Commission helps cities achieve EU objectives. Learn how cities can gain and share knowledge. Get information on funding and other support.' The main content area is divided into three columns: 'Urban agenda for the EU', 'Action for cities', and 'Knowledge for cities'. Each column contains a brief description and a list of links.

Commission and its priorities Policies, information and services

English Search Menu

European Commission > EU regional and urban development >

### Cities

See how the Commission helps cities achieve EU objectives. Learn how cities can gain and share knowledge. Get information on funding and other support.

Urban agenda for the EU	Action for cities	Knowledge for cities
The urban agenda brings together city governments, national governments and the European Commission to improve urban policy.	The Commission plays an active role in initiatives to address urban issues.  Sustainable Urban Development Smart Cities and Communities <a href="#">[2]</a> Covenant of Mayors for Climate and Energy <a href="#">[2]</a> Habitat III - New Urban Agenda <a href="#">[2]</a>	EU databases such as the urban data platform promote knowledge sharing and better policy-making on urban issues.





# EU Policy Context on Cities

## Urban Agenda for the EU – DG REGIO

<http://www.uia-initiative.eu/>  
Urban Innovative Actions

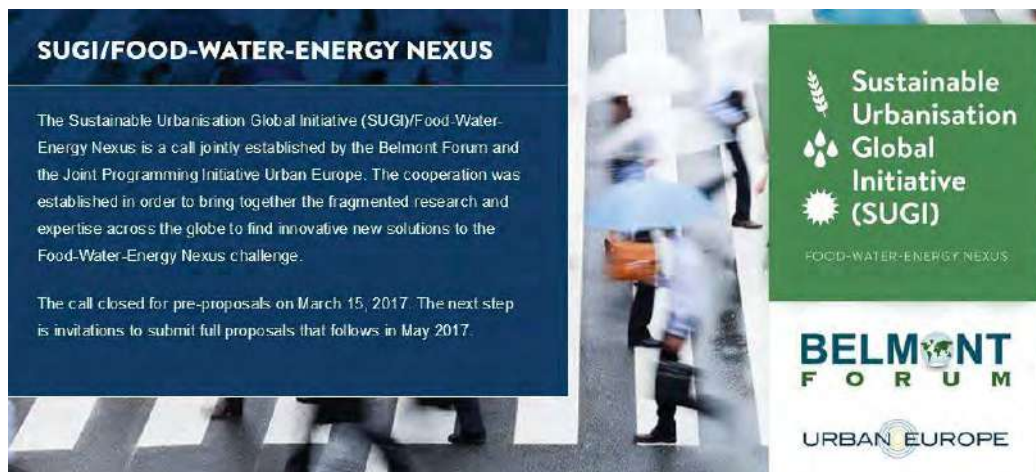


# EU R&I Policy on Cities - Instruments

## Joint Programming Initiative Urban Europe – DG RTD

<http://jpi-urbaneurope.eu/>

EU Member State initiative on Systemic Urban Innovation. Sustainable Research and Innovation Agenda: 'Transition towards sustainable and liveable urban futures'



## Additional opportunities

- JPI calls, PRIMA
- European Structural and Investment Funds (ESIF) 2014-2020
- **Urban Innovative Actions** (Art. 8 ERDF Regulation)
  - EUR 371 million, to experiment novel ideas (Art. 8 ERDF Regulation)
  - Upcoming call to include nature-based solutions

## International R&I cooperation on NBS



- Close collaboration with the **Belmont Forum: Sustainable Urbanisation Global Initiative – Food-Water-Energy Nexus (SUGI)**
- EU-China Partnership on Urbanisation
- EU-Brazil Sector Dialogue on Nature-Based Solutions for Sustainable Cities.

## Close collaboration with the Belmont Forum



## New for 2018-2019

• ***High Level Expert  
Group on innovating  
cities***

Urban Booklet with EU  
funded projects  
(Energy, Mobility,  
Health, CH, Social,  
Climate adaptation,  
Food, JPI)

• ***Mapping for all  
FP6, FP7, H2020  
urban Projects***

COMMISSION  
TOPIC PAGE

• ***Policy  
Outcome  
Report FP7  
projects***



A large graphic for Horizon 2020. It features a blue background with a glowing globe on the left, showing the Earth's continents. To the right of the globe, the text "HORIZON 2020" is written in large, bold, yellow capital letters. The background also includes abstract blue lines and a starry space-like pattern.

# HORIZON 2020

**Thank you**  
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**Find out more:**  
[www.ec.europa/research/horizon2020](http://www.ec.europa/research/horizon2020)

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