

# Green Infrastructure - Joint Programming Initiative Urban Europe promoting and funding nature based solutions for sustainable and resilient cities.

*Paola Clerici Maestosi, JPI UE vice-chair*

**4-7 APRIL 2017  
ORVIETO, ITALY**

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# INTRODUCTION JPI URBAN EUROPE

Competition in the world's cities is becoming fiercer and fiercer, whether it is in commerce, industry, tourism, labour or investment. Therefore, our cities need to be transformed into more sustainable, resilient, and liveable places if they are to compete effectively on a world stage. This transformation isn't easily achieved; it requires urgent transnational attention in the fields of urban innovation and technological development. JPI Urban Europe responds to this urgency by committing itself to ambitious intra- and interdisciplinary research on a transnational scale. We function as both a gateway and a hub for urban research, facilitating research on a scale which simply could not be carried out by any one nation alone.



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INFRASTRUCTURE:**  
NATURE-BASED SOLUTIONS  
FOR SUSTAINABLE  
AND RESILIENT CITIES

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## JOINT PROGRAMMING

Joint Programming is an instrument which was launched by the European Commission in 2008. It was designed for the implementation of the European Research Area (ERA) which aims to promote strategic cooperation between EU Member States and associated countries. The instrument is designed to focus on reducing fragmentation in research whilst simultaneously strengthening research and innovation projects by having European countries and actors voluntarily work together and align their national interests. This way they can achieve outcomes on a much larger scale, leading to much more complex research results which can be compared and contrasted across nations. Researchers will be able to learn a lot from this cooperation and comparison of different case studies. We will provide the structures and facilities which will make international cooperation in urban research possible.



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## JPI URBAN EUROPE: GLOBAL URBAN CHALLENGES – JOINT EUROPEAN SOLUTIONS

As one of the resulting joint programming initiatives the JPI Urban Europe was created in 2010 to address the global urban challenges of today with the ambition to develop a European research and innovation hub on urban matters and create European solutions by means of coordinated research. Currently, JPI Urban Europe has 13 members: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Slovenia Sweden and the United Kingdom. Latvia, Poland, Portugal, Romania, Spain and Turkey are observers, as well as the European Commission. More countries are involved in specific JPI Urban Europe activities.



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## MISSION & VISION

### Mission

Today, it is more and more common to refer to current times as the urban age, which means that, on a planetary level, urban areas are the main loci that attract, process and channel the societal, cultural and economic matters at the core of human life. They act as regional innovation hubs. However, current forms of urbanisation are deeply unsustainable over most – if not all – sectors and dimensions that make up contemporary urban life and with footprints way beyond what is commonly considered as urban. As economies of scales, the size, infrastructure, consumer behaviour, strategic planning and cross-sectoral policy instruments can be coordinated more efficiently in cities[1], getting our cities and urban areas right is hence the key to set the planet right[2].

### Mission Statement: Global Urban Challenges – Joint European Solutions

The JPI Urban Europe responds therefore to *Global Urban Challenges* by developing *Joint European Solutions*. Through joint actions, JPI Urban Europe aims to:

- Enhance the capacities and knowledge on transition towards more sustainable, resilient and liveable urban developments.
- Reduce the fragmentation in funding, research and urban development; to build critical mass to realise urban transition; and to
- Increase the profile of European urban science, technology and innovation on the global stage.

### Vision

JPI Urban Europe responds to the urgent need for ambitious, sustained and truly inter- and transdisciplinary research to radically improve our understanding of how socially, economically and environmentally sustainable our urban areas are; and to support Europe's cities in their transition towards a future that maximises their sustainability, resilience and their liveability in this era of global competition for commerce, industry, tourism, labour and investment; to drive urban innovation and technologies.

Through its strategy and actions JPI Urban Europe contributes to the EU 2020 Strategy on smart, sustainable and inclusive growth, the EU Urban Agenda as well as to the UN Sustainable Development Goals.



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# INTRODUCTION CALLS

## Urban Problems of the 21<sup>st</sup> century

The cities of Europe face a number of daunting problems in the 21<sup>st</sup> century. These range from urban decline to climate change, and beyond. The scale of these issues crosses national boundaries and cannot be faced by one country alone. Therefore, it is vital that efforts in research and innovation be commensurate with the problems faced. Since its creation in 2010, JPI Urban Europe has strived to encourage this vital transnational research.



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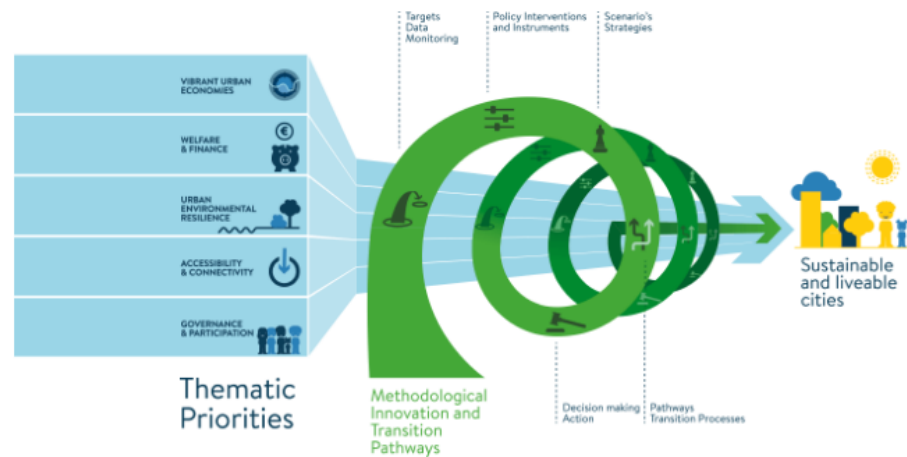


# CALLS TO RESEARCH AND INNOVATION

In order to achieve the aim of transnational research coordination and cooperation, we prepare and facilitate calls for research and innovation projects. The calls are developed according to the multi-annual call agenda and implemented by the Funding Agencies Working Group (FAWG). In line with our principles of fostering inter-and transdisciplinary research and innovation, we aim to include in the resulting projects the participation of a wide spectrum of actors, such as researchers, practitioners, entrepreneurs, municipalities, companies, NGOs, and other stakeholders dedicated to the development of European urban areas.

## THE JPI UE MULTI-ANNUAL CALL AGENDA

Based on the JPI UE Strategic Research and Innovation Agenda (SRIA) and its defined priorities and research topics, a multi-annual call agenda has been developed covering the timeframe 2016–2020. The multi-annual call agenda takes an integrated view on urban development with the ambition of fostering cross-fertilisation of the thematic priorities but at the same time to have clearly defined and focused call topics. Based on the call agenda specification, call topics will be defined with consideration to results already achieved from earlier calls, the latest scientific developments, external cooperation opportunities and newly identified research needs. For different calls, tuned to the call topics and aims, specific participation conditions and criteria might apply.



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## OUR SUCCESS SO FAR

We are proud to say that in the first three calls 37 research and development projects have been selected with over 150 project partners including research institutes, municipalities, entrepreneurs and citizen platforms.

The projects are financed by funding agencies with a total budget of €41.7 million, including €5.5 million in top-up funding from the European Commission.



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## THE JPI UE PILOT CALLS

In 2012 and 2013 we carried out two pilot calls that supported the start-up phase of JPI UE. Ten and then sixteen funding agencies joined forces respectively, and started collaboration on urban matters. National budgets were pooled together to initiate transnational projects on topics such as urban governance, urban systems and networks, urban vulnerability or urban diversity. 20 projects were funded in these two calls.

## THE JPI UE ERANET COFUNDS

Over time we have been able to expand the scope of our calls by developing ERANET Co-funded calls. The ERANET Co-funds provide European Commission top-up funding and enable the connection of the JPI UE programme to various societal challenges of H2020 and generate added value through initiating cooperation with EU policies and activities, such as the European Innovation Partnership Smart Cities and Communities or structural funds. The ERANET Cofunds also facilitate the widening of participation of EU Member States or Associated States and support international cooperation (e.g. with Belmont Forum and China).

In the ERANET Cofund Smart Cities and Communities call 17 projects were granted approval with a total budget of €21.9 million including €5.5 million in European Commission top-up funding.

The ERANET Cofund Smart Urban Futures is now in its full proposal stage and awaits the project selection phase. The ERANET Cofund Sustainable Urbanisation Global Initiative call is now under preparation.

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## SUGI/FOOD-WATER-ENERGY NEXUS

The Sustainable Urbanisation Global Initiative (SUGI)/Food-Water-Energy Nexus is a call jointly established by the Belmont Forum and the Joint Programming Initiative Urban Europe. The cooperation was established in order to bring together the fragmented research and expertise across the globe to find innovative new solutions to the Food-Water-Energy Nexus challenge.

The call closed for pre-proposals on March 15, 2017. The next step is invitations to submit full proposals that follows in May 2017.



Sustainable  
Urbanisation  
Global  
Initiative  
(SUGI)

FOOD-WATER-ENERGY NEXUS

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# Sustainable Urbanisation Global Initiative (SUGI)

F O O D - W A T E R - E N E R G Y N E X U S

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# Overview

- **Established by** Belmont Forum and JPI Urban Europe
- **Open** 9 December 2016
- **Application** 2-step
- **Call budget** approx. 34 M€
- **Countries** 22 (26 FAs)

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# About the call

- In the Sustainable Urbanisation Global Initiative (SUGI) Food-Water-Energy Nexus Call international partners are invited to develop solutions targeting the Food-Water-Energy Nexus challenge.
- Belmont Forum and JPI Urban Europe have partnered to ensure participants across natural sciences (including engineering), social sciences and arts and humanities as well as policy and decision makers and stakeholders around the world.
- The call topics will enable the participants to develop projects that aim to find solutions to the Food-Water-Energy nexus for a sustainable urbanisation.

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# 3 call topics

- Robust knowledge, indicators and assessments
- Multi-level governance and management
- Managing strategies and solutions

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# Participation and application

- Each project proposal must be submitted by a project consortium consisting of at least three eligible applicants from at least three participating countries.
- The added value resulting from transnational cooperation must be addressed in the proposal.
- To be eligible for funding provided by the European Commission, the transnational project must involve at least two independent entities from two different EU member states or associated countries.
- Each of the applicants must have the interest and competence to undertake research, development or innovation within the specified topics. The different national rules of funding apply.
- The main applicant and co-applicants must be affiliated with an organization situated in one of the participating countries.
- Cooperation partners may come from countries not participating in the call and are not eligible for program funding.

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# Topic 1: Robust knowledge, indicators and assessments

- The process of developing a relevant, accessible and global urban sustainability knowledge base is in focus of this topic.
- The topic includes efforts to gather, structure and synthesize existing knowledge, innovations practices, and potential systems and applied solutions across the FWE nexus.
- The aim is to develop knowledge platforms, connecting researchers and stakeholders and link knowledge to decision-making and implementation. The platforms should also serve as hubs for research results from projects in other topics in the call

# Topic 2: Multi-level governance and management

- This topic focuses on strategic and social innovations and practical solutions in the realm of governance and management of the FWE nexus.
- Urban systems are effected by significant stresses that are indirect: e.g. global markets, supply chains and wider infrastructure networks.
- The aim is to develop diverse management strategies and institutional processes as well as capacity and support functions and identify effective models for transfer and scaling of interventions between regions in a comprehensive spatial perspective.



# Topic 3: Managing strategies and solutions

- This topic focuses on identifying and developing integrative solutions that assess and manage risks and uncertainties at the intersection of the sustainable urbanisation and the FWE nexus, while balancing tradeoffs and minimizing social and cultural inequities.
- The aim is to identify drivers of social and economic inequalities arising from urbanization and tools for better management and stakeholder involvement including use of new technologies, simulation systems or customizable capacity building interfaces.

# Type of projects wanted

- ▶ Projects referring to a broader range of research types from fundamental research to innovation.
- ▶ Innovation projects: Implementation, demonstration, testing and uptake of approaches for new products, services, policies, practices, and processes, with potential for improving economic, social, or environmental sustainability in cities.
- ▶ The ultimate goal is to rapidly evolve the knowledge base, advance indicators and assessment tools that are needed for a comprehensive understanding of the FWE nexus, and develop practical new solutions to the FWE challenges.
- ▶ Projects must address all three sectors food, water and energy by an integrative approach.

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# Who can apply?

- Companies
- Cities
- Municipalities
- Regions
- Consumers
- Citizens' representatives
- NGOs
- Research organisations

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# Time schedule SUGI-FWE call

- **Opening** 9 December 2016
- **Pre-proposal deadline** 15 March 2017
- **Invitations to submit full proposal** June 2017
- **Full proposal deadline** 20 September 2017
- **Funding decisions announced** December 2017
- **Start of projects** Dec. 2017 – March 2018

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# Matchmaking and events

- February 16 SUGI FWE Nexus Webinar/matchmaking
  - February 20 – 22 Incubator meeting in Chinese Taipei
  - February 22 – 24 Transdisciplinary workshop in Tempe, AZ,
  - February 28 Incubator meeting in London, UK
  - March 1 – 3 Transdisciplinary workshop in Boulder, CO
  - Late March/TBA Transdisciplinary workshop in Baltimore, USA
- 
- All funding agencies are encouraged to organize national info seminars and matchmaking.
  - Updated info on events in the [Events calendar](#)

# Project partners and call budgets

## Specific funding agencies' budgets and rules of eligibility

Country	Funding Agency	Funding	Funds may be used for the following stage(s) of the research, development and innovation process*		
			Innovation and implementation	Applied research	Fundamental research
Argentina <sup>1)</sup>	MINCyT	0.1 M€	X	X	X
Australia*	CSIRO	N/A	N/A	N/A	N/A
Austria <sup>1)</sup>	FFG	2 M€	XX	XX	
Belgium <sup>1)</sup>	FWO	0.3 M€			XX
	INNOVIRIS	0.6 M€	XX	XX	X
Brazil	FAPESP	1.0 M€	XX	XX	XX
Chinese Taipei	MOST	2.0 M€	XX	XX	XX
Cyprus <sup>1)</sup>	RPF	0.4 M€	X	XX	X
France <sup>1)</sup>	ANR	1.5 M€		XX	XX
Germany <sup>1) 2)</sup>	BMBF	1.5 M€	X		XX
Japan	JST	0.5 M€	XX	X	X
Latvia <sup>1)</sup>	VIAA	0.3 M€	X	X	X
The Netherlands <sup>1)</sup>	NWO	1 M€	X	XX	XX
Norway <sup>1)</sup>	RCN	1 M€	XX	X	X
Poland <sup>1)</sup>	NCN	0.5 M€			XX
Qatar	QNRF	1.4 M€	XX	XX	XX
Romania <sup>1)</sup>	UEFISCDI	0.5 M€	XX	XX	
Slovenia <sup>1)</sup>	ARRS	0.3 M€			XX
South Africa*	NRF	N/A	N/A	N/A	N/A
Sweden <sup>1)</sup>	Formas	1.5 M€	X	XX	XX
	Swedish Energy Agency	0.9 M€	XX	XX	X
Turkey <sup>1)</sup>	TUBITAK	0.35 M€	X	X	X
United Kingdom <sup>1)</sup>	AHRC, ESRC, Innovate UK <sup>2)</sup>	1.7 M€	XX	XX	XX
USA	NSF	6 M€	XX	XX	XX

\* Participation by FA in the call pending



# Being a member of the community

- Access to a global network of researchers, practitioners, stakeholders and experts in urban development.
- Activities include knowledge sharing, networking, programme seminars, dissemination of results and a website acting as an information and networking hub.

# What JPIUE already funded to promote sustainable and resilient cities?

first CALL

second CALL

PROJECT  
Green Blue Cities



<http://jpi-urbaneurope.eu/project/green-blue-cities/>

PROJECT  
APRILab



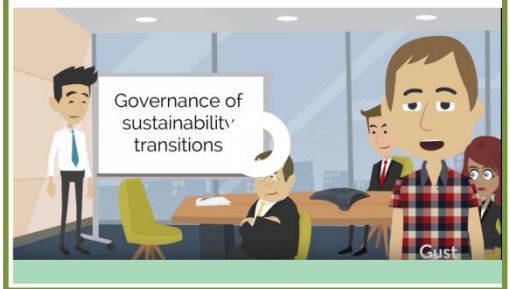
<http://jpi-urbaneurope.eu/project/aprilab/>

PROJECT  
CASUAL



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

PROJECT  
GUST



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

PROJECT  
UrbanData2Decide



<http://jpi-urbaneurope.eu/project/urbandata2decide/>

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