



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



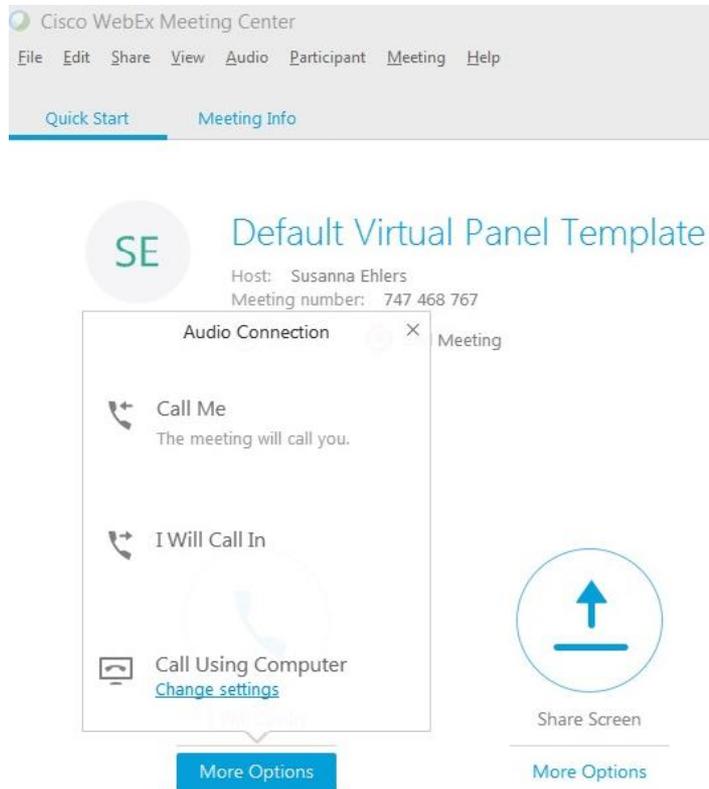
To join the meeting:

► Under the Quick Start Tab

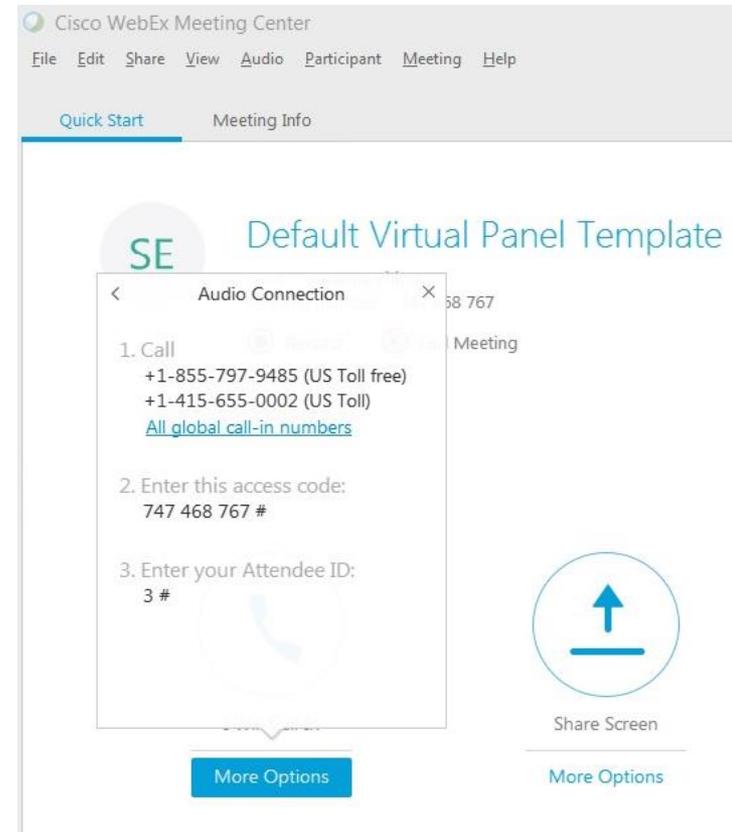
The screenshot displays the Cisco WebEx Meeting Center interface. At the top, the title bar reads "Cisco WebEx Meeting Center" with a menu bar containing "File", "Edit", "Share", "View", "Audio", "Participant", "Meeting", and "Help". Below the menu bar, the "Quick Start" tab is selected and highlighted in blue, with a red arrow pointing to it from the text above. The "Meeting Info" tab is also visible. The main content area shows a meeting titled "Default Virtual Panel Template" hosted by "Susanna Ehlers" with meeting number "747 468 767". There are buttons for "Record" and "End Meeting". Below this, three large circular icons are visible: "I Will Call In", "Share Screen", and "Invite & Remind". A red arrow points upwards from the bottom left towards the "I Will Call In" icon. On the right side, there is a "Participants" panel showing "Susanna Ehlers (Host, me)" as the speaker. Below that is a "Chat" panel with a "Send to:" dropdown set to "Everyone" and a "Send" button. The bottom right corner shows a "Connected" status with a blue dot.

Three call in options:

► Computer



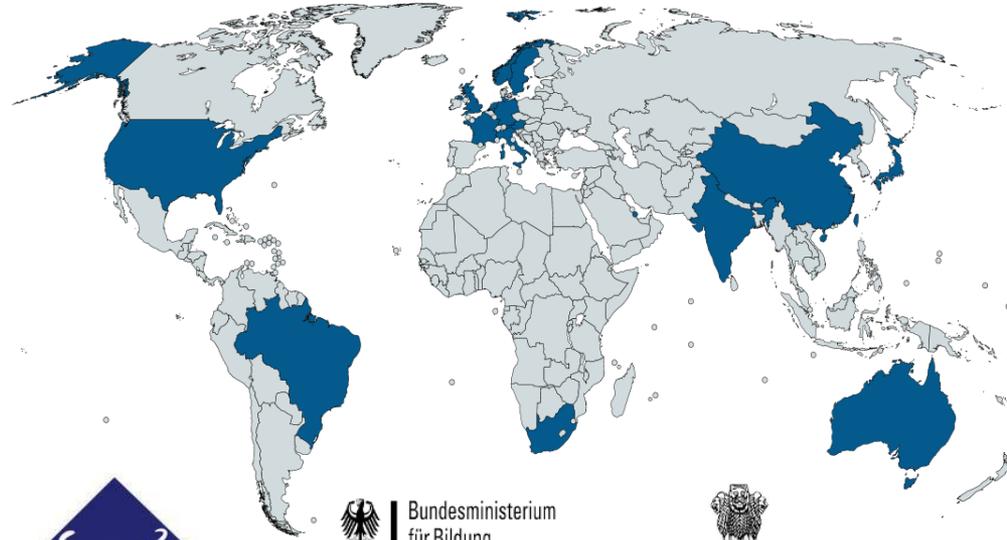
► Telephone – call in to the meeting
– have the meeting call you



Speakers

Susanna Ehlers	6 - 7; 10 - 13; 19 - 21	NSF
Maria Uhle	Q & A	NSF
Daniela Melandri	8 - 9, 14 - 18	Innovate UK

BELMONT FORUM



The Belmont Challenge



This guiding principle of all Belmont Forum Collaborative Research Actions is called the **Belmont Challenge**:

To deliver knowledge needed for action to mitigate and adapt to detrimental environmental change.

The Challenge requires:

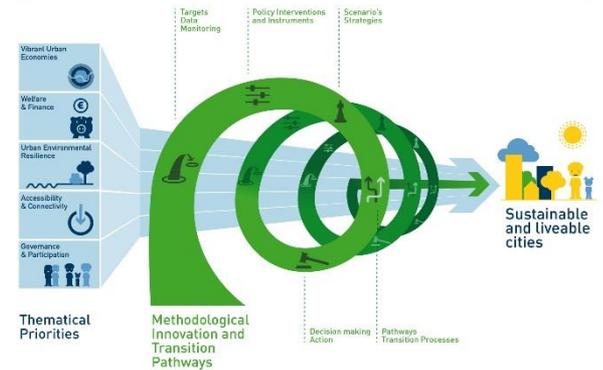
- Assessments of risks, impacts and vulnerabilities, through regional and decadal-scale analysis and prediction;
- Information on the state of the environment, through advanced observing systems;
- Interaction of **natural** and **social sciences**;
- Enhanced environmental information service providers to **users**;
- **Effective international coordination mechanisms.**

What is JPI Urban Europe?

The JPI Urban Europe is a transnational, mission-oriented, forward-looking research and innovation initiative on sustainable urban development. Its ambition is:

- to provide evidence for new urban policies and strategies and by that enhancing cities' capacities for transition
- to address urban development and sustainability in its complexity and generating radical new knowledge and concepts to tackle the urban challenges (*cross-sectoral, interdisciplinary*)
- to team up with cities and urban stakeholders of all kinds to enhance the impact of our research and support the exploitation of technological and social innovation (*transdisciplinary, focus on societal impact*)

Transition towards sustainable and liveable urban futures



What is JPI Urban Europe?

The initiative has 12 European members, 8 observers, and 4 occasional partners:

- Austria
- Belgium
- Cyprus
- Denmark
- Finland
- France
- Germany
- Italy
- the Netherlands
- Norway
- Slovenia
- Sweden
- United Kingdom
- Lithuania (*Occasional Co-Funder*)
- Switzerland (*Occasional Co-Funder*)
- Czech Republic (*Partner in Dissemination*)
- European Commission (*Observer*)
- Latvia (*Observer*)
- Poland (*Observer*)
- Portugal (*Observer*)
- Romania (*Observer*)
- Spain (*Observer*)
- Turkey (*Observer*)

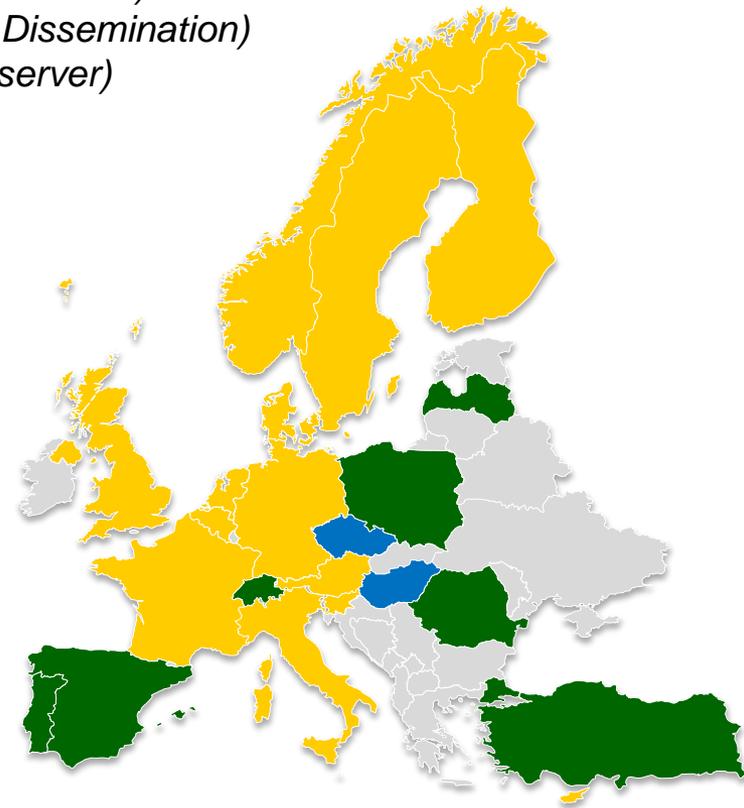
22 European countries

Core Members

Observers and occasional co-funders of joint calls

Additional partners in dissemination

URBAN EUROPE



What is a Collaborative Research Action/ERANET (in Europe)?

- ▶ A Joint Initiative between funders belonging to different countries, in order to fund transnational consortia on a specific challenge
- ▶ Interdisciplinary
 - ❑ Natural & Social Sciences, Arts & Humanities
- ▶ Clear links to research users
 - ❑ Decision makers, regulators, NGOs, communities, industry
- ▶ Address societally relevant global environmental change challenges
- ▶ Support for capacity building

Why “A Nexus Approach to Global Urbanization?”

- Belmont Forum – JPI Urban Europe scoping workshop in 2015 in Boulder, CO
 - Accelerate transitions to sustainable consumption and production
 - Addresses vital global and societal needs
 - Aligns nicely with funding agencies’ current and future goals and priorities
 - EC has the SC5: Climate Action, Environment, Resource Efficiency and Raw Materials
 - CSIRO has deep expertise across the nexus and is committed to “impact science”
 - JST has RISTEX (Research Institute of Science and Technology for Society)
 - MOST has Climate Change Projection and Information platform project (TCCIP) and Climate Change Adaptation Technology (TaiCCAT)
 - BMBF three “flagship initiatives“: Green Economy, City of the Future, Energy System Transformation
 - SEI Initiatives include Behavior and Choice, Fossils Fuels and Climate Mitigation, Producer to Consumer Sustainability, Sustainable Sanitation
 - DFG Research Training Group 1703 “Resource Efficiency in Interorganizational Networks – Planning Methods to Utilize Renewable Resources”
 - NSF has Innovations at the Nexus of Food, Energy and Water Systems (INFEWS)
 - NWO with NORFACE

Why “A Nexus Approach to Global Urbanization?”

► Population growth

7 billion (2013)⇒8 billion (2025)⇒10 billion (2050) ⇒11 billion (2100)

► Globalization

Traded percentage of food produced has grown globally from about 10% in 1970 to 15% in 2000

► Economic (GDP) growth

2.4% (2013)⇒3.2% (2014)⇒3.4% (2015)⇒3.5% (2016)

► Urbanization

- Half of the global population lives in urban areas
- 70% of the global population is expected to live in the cities in 2050
- Cities produce 75% of economic output

► Climate change

- Global sea level is expected to rise due to the increased ocean warming and melting of glaciers and ice sheets.
- The increase of CO₂ in the atmosphere will promote ocean acidification due to the uptake of carbon by the ocean.

From RIHN, Japan presentation at the Belmont Forum Scoping
Workshop: Food, Water & Energy for Sustainable Global
Urbanization 29 June - 2 July 2015

Why “A Nexus Approach to Global Urbanization?”

Access Issues

▶ Water

- 1.1 billion people do not have sufficient access to water
- 2.6 billion people lack adequate sanitation
- 2/3 of the world’s population live in areas of high water stress

▶ Food

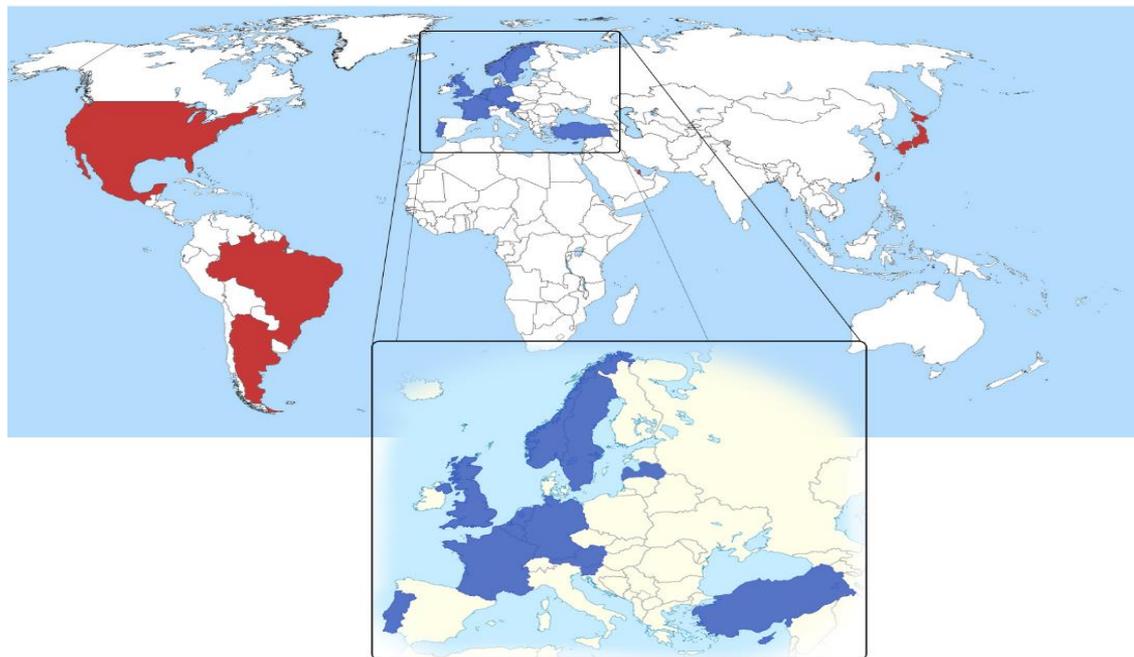
- Close to 1 billion people are facing extreme hunger
- Approximately 2 billion people lack food security

Resource Issues

- ▶ Demand for water will exceed global availability by 40% in 2030
- ▶ Global food demand will increase up to 70% by 2050
- ▶ Primary energy needs will rise to 50% by 2035

From RIHN, Japan presentation at the Belmont Forum Scoping Workshop: Food, Water & Energy for Sustainable Global Urbanization 29 June - 2 July 2015

Who we are



► JPI Urban Europe

- MINCYT (AR), FFG (AT), FWO (BE), IRSIB (BE), RPF (CY), JUELICH (DE), ANR (FR), VIAA (LV), NWO (NL), RCN (NO), NCN (PL), UEFISCDI (RO), Formas (SE), SWEA (SE), ARRS (SI), TUBITAK (TR), AHRC (UK), ERSC (UK), Innovate UK (UK)

► Belmont Forum

- CSIRO (AU), FAPESP (BR), JST (JP), QNRF (QA), NRF (ZA), MOST (CT), NSF (US), CONACYT (MX, pending)

The SUGI Food-Water-Energy Nexus CRA/ERANET will:

- Address mutual Belmont Forum and JPI Urban Europe priorities
- Leverage Belmont Forum and JPI Urban Europe members' existing investments through international added value
- Enable new partnerships of natural and social scientists, including arts and humanities, end users, and stakeholders
 - *Transdisciplinary and interdisciplinary*
- Transdisciplinary vs interdisciplinary definition:
 - Collaboration in which exchanging information, altering discipline-specific approaches, sharing resources and integrating disciplines achieves a common scientific goal (Rosenfield 1992).
 - Co-design/co-create with stakeholders so the research is directed towards a stakeholder need
 - Solutions oriented research

The SUGI Food-Water-Energy Nexus CRA/ERANET will:

- Bring together fragmented research and innovation expertise across the global to find innovative new solutions to the food-water-energy nexus challenge
- To support development of practical innovations and new collaborative research that will allow urban areas to understand and address the challenges of the Food-Water-Energy systems
- Foster the development of international relationships between the different parts of the research and innovation community – to enable contribution to addressing those challenges and goals - while aligning with wider, strategic initiatives, including the SRIA agenda, Future Earth and UN–Habitat

The SUGI Food-Water-Energy Nexus CRA/ERANET proposals will:

- Fall under one or more of these three themes:
 1. **Robust Knowledge, Indicators and Assessments**
 2. **Multi-level Governance and Management of the Food-Water-Energy Nexus**
 3. **Managing Potential Strategies and Solutions to address emerging Risk and Tradeoffs**

- Connect to the UN Sustainable Development Goals (SDGs) and Future Earth sustainability challenges

<http://www.futureearth.org/news/future-earth-2025-vision-sets-framework-programmes-contribution-global-sustainable-development>

Eligibility

- Each funder defines their own eligible communities through a National Annex
- All projects are highly encouraged to create a multi-lateral partnership drawing on **3 or more** countries (at least 1 BF and 2 JPI UE)
- If requesting funding from a JPI country, it is *strongly encouraged* that at least two JPI countries be involved, plus at least one non-JPI (i.e. non-European Belmont Forum) partner, to benefit from European Commission additional funding
- Proposals from 3 or more non-JPI partners WILL BE accepted
- PIs/organizations from countries not represented by the participating Belmont Forum and JPI countries may participate at no cost, but do not count toward the 3-country minimum

The SUGI Food-Water-Energy Nexus Workshops/Incubators

- To provide networking opportunities, transdisciplinary training, enhance professional development, and brainstorm on potential project ideas
 - Three regional workshops in the United States
 - One workshop in South Africa
 - 12 or 13 January 2017 planned in the European Union
 - 20 – 22 February 2017 in Chinese Taipei
 - Qatar possibly

Stay tuned for more details!



Late 2016 Early 2017	Call Announced Regional Community Incubator Workshops Transdisciplinary training sessions
12 or 13 January 2017	UERA Matchmaking/workshop incubator event
Early to Mid 2017	Pre-proposals due (3 year projects) - Mar/Apr 2017 Full Proposals due - Sep/Oct 2017
2018 - 2021	Projects begin early 2018, end 2021 Disseminate findings Develop synergies between projects

Questions?

Find us!

www.sugi-nexus.org

@Belmont_Forum and @JPIUrbanEurope

Thank you for your participation.

JPI Urban Europe

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Belmont Forum

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