

**EIGHTH SESSION OF THE COMMITTEE OF EXPERTS ON UN-GGIM**

**FORUM**

Forum conducted by the UNGGIM Academic Network

# **The SDGs Connectivity Dilemma:** Urban Settlements, Resilience, and Sustainability

**14:00 - 18:00**  
**Monday 30 July 2018**  
Conference Room 3  
UN Headquarters, NY

# **WELCOME**

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## Opening Remarks

**Dr. Wael Zakout**

**Global Lead**, Land Policy and Geospatial,  
The World Bank

**Mr. Stefan Schweinfest**

**Director**, United Nations Statistics Division

**Prof. Abbas Rajabifard**

**Chair**, UN-GGIM Academic Network



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## Setting the Scene

**Prof. Abbas Rajabifard**

Chair, UN-GGIM Academic Network



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# Acknowledgment

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Making location count.



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# Acknowledgment: Speakers

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# UN-GGIM Academic Network

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The Academic Network is a formal body constituted as part of the United Nations Global Geospatial Information Management (UN-GGIM).

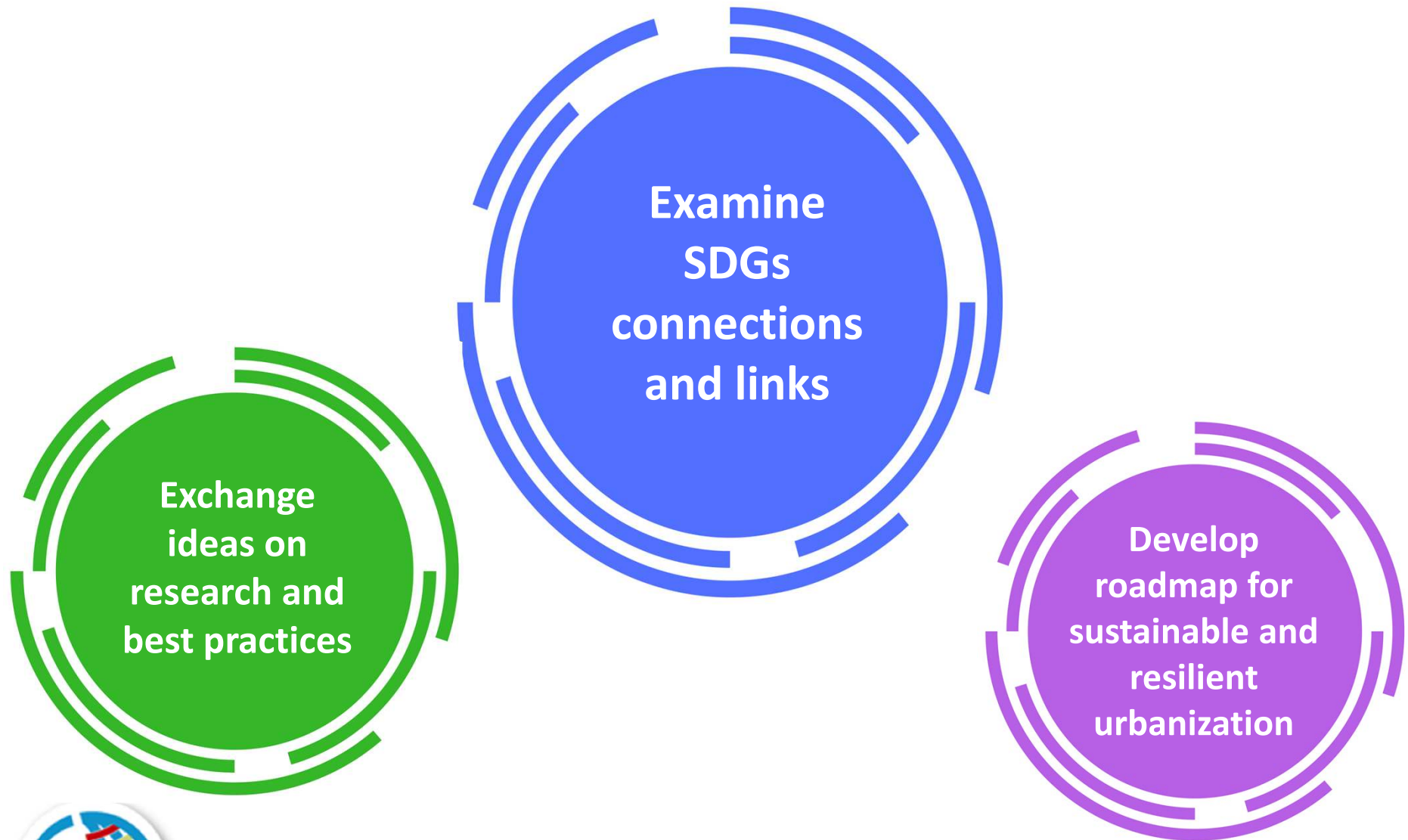
UN-GGIM Academic Network is the strategic knowledge, research and training arm of it.





# Forum Aim and Objectives

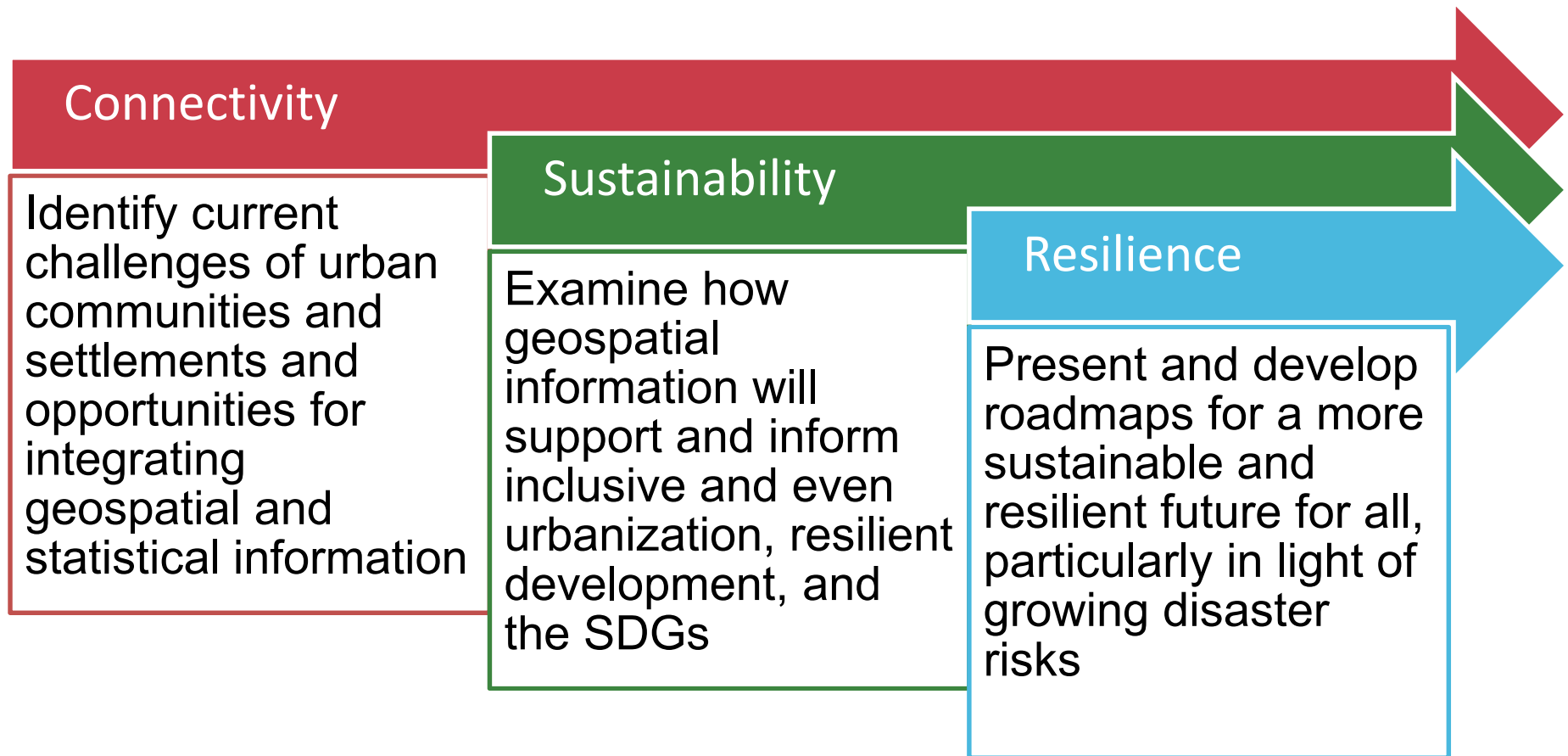
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# Forum Objectives

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# Structure

- 2 Sessions
- 2 Panels
- 10 Presentations
- 11 Panellists

## Programme Agenda

TIME	DETAILS
<b>OPENING SESSION</b>	
14:00 – 14:20	<b>Welcome and Opening Remarks</b> Mr. Stefan Schweinfest (Director, United Nations Statistics Division) Dr. Wael Zakout (Global Lead, Land Policy and Geospatial, The World Bank) Prof. Abbas Rajabifard (Chair, UN-GGIM Academic Network/Director, Centre for SDIs & Land Administration, The University of Melbourne)
<b>SESSION 1</b>	
14:20 – 15:00	<b>Strategic Pathways to Improve the Achievement of the SDGs in the Context of Urban Resilience</b> Dr. Stuart Minchin* (Chief of Division, Industry Innovation & Science, Environmental Geoscience) How a Global Framework on Land Administration Can Contribute to Achieve the SDGs – Mr. Kees de Zeeuw (Chair, UN-EG-LAM/Director, Kadaster International) Monitoring Progress with Cloud Services – Prof. Josef Strobl (Advisory Board, UN-GGIM Academic Network/Lead, Interfaculty Department of Geoinformatics, University of Salzburg) GeoSpatial Data Science for Urban Resilience: Challenges and Opportunities – Prof. Monica Wachowicz (Advisory Board, UN-GGIM Academic Network/University of New Brunswick) Mapping SDGs Interactions for Cities – Ms. Maryam Rabiee (Research Associate, Centre for SDIs & Land Administration, The University of Melbourne)
<b>Panel Discussion: International Organisation Perspective</b>	
15:00 – 16:00	Dr. Chrysos Patsiou (President, FIG) Mr. Greg Scott (Inter-Regional Adviser, UN-GGIM) Mr. Alvaro Barra (Land Administration & Geospatial Specialist, Global Land & Geospatial Unit, Social Urban, Rural & Resilience GP, The World Bank) Prof. Menno-Jan Kraak (President, ICA) Prof. Dieter Fritsch (Vice Chair, UN-GGIM PSN) Mr. Chris Body (ISO/TC 211)
16:00 – 16:10	<b>BREAK</b>
<b>SESSION 2</b>	
16:10 – 16:50	<b>Requirements and Enabling Tools for Implementing the SDGs in Urban Settings</b> Developing a Governance Framework – Prof. Joep Crompvoets (Advisory Board, UN-GGIM Academic Network/KU Leuven) What Do We See? Key Consideration While Mapping SDG Indicators – Prof. Menno-Jan Kraak (Advisory Board, UN-GGIM Academic Network/University of Twente) Improving Resilience and Resilience Impact of National Land and Geospatial Systems – Mr. Alvaro Barra (Land Administration & Geospatial Specialist, Global Land & Geospatial Unit, Social Urban, Rural & Resilience GP, The World Bank) Towards More Resilient Cities – Prof. Tom Veldkamp (Dean, ITC Faculty, University of Twente) Spatial Infrastructure and Urban Analytics – Prof. Abbas Rajabifard (Chair, UN-GGIM Academic Network/Director, Centre for SDIs & Land Administration, The University of Melbourne)
<b>Panel Discussion: Legal and Organisational Perspective</b>	
16:50 – 17:50	Prof. Harlan Onsrud (Advisory Board, UN-GGIM Academic Network/Director, School of Computing & Information Science, University of Maine) Dr. Kyoung-Soo Eom (Chief, United Nations Cartographic Section) Dr. Christopher Williams (Director, UN-Habitat New York Office) Ms. Irma Britton (Senior Editor, Environmental Engineering and Environmental Science, Taylor and Francis Group) Mr. Frank Swiaczny (Assistant Director, UN DESA-Population Division, New York)
<b>CLOSING SESSION</b>	
17:50 – 18:00	<b>Way Forward and Closing Remarks</b> Prof. Abbas Rajabifard (Chair, UN-GGIM Academic Network/Director, Centre for SDIs & Land Administration, The University of Melbourne)



By 2030...

60 % world's population will live in cities

***“Cities will play a key role in the success of achieving SDGs”***

cities will account for

11 SUSTAINABLE CITIES AND COMMUNITIES

– Habitat III

60 % global GDP



Dobbs et al., 2011; Bouton et al., 2013

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# BY 2030...

**“Make cities and human settlements inclusive, safe, resilient and sustainable.”**

***Indicators:***

- Housing and basic services
- Transport systems and road safety
- Inclusive and sustainable urbanisation
- Protect and safeguard cultural and natural heritage
- Reduce impact of disasters; Hyogo framework
- Reduce environmental impact of cities
- Access to green and public spaces
- National and regional planning
- Sustainable and resilient buildings using local materials

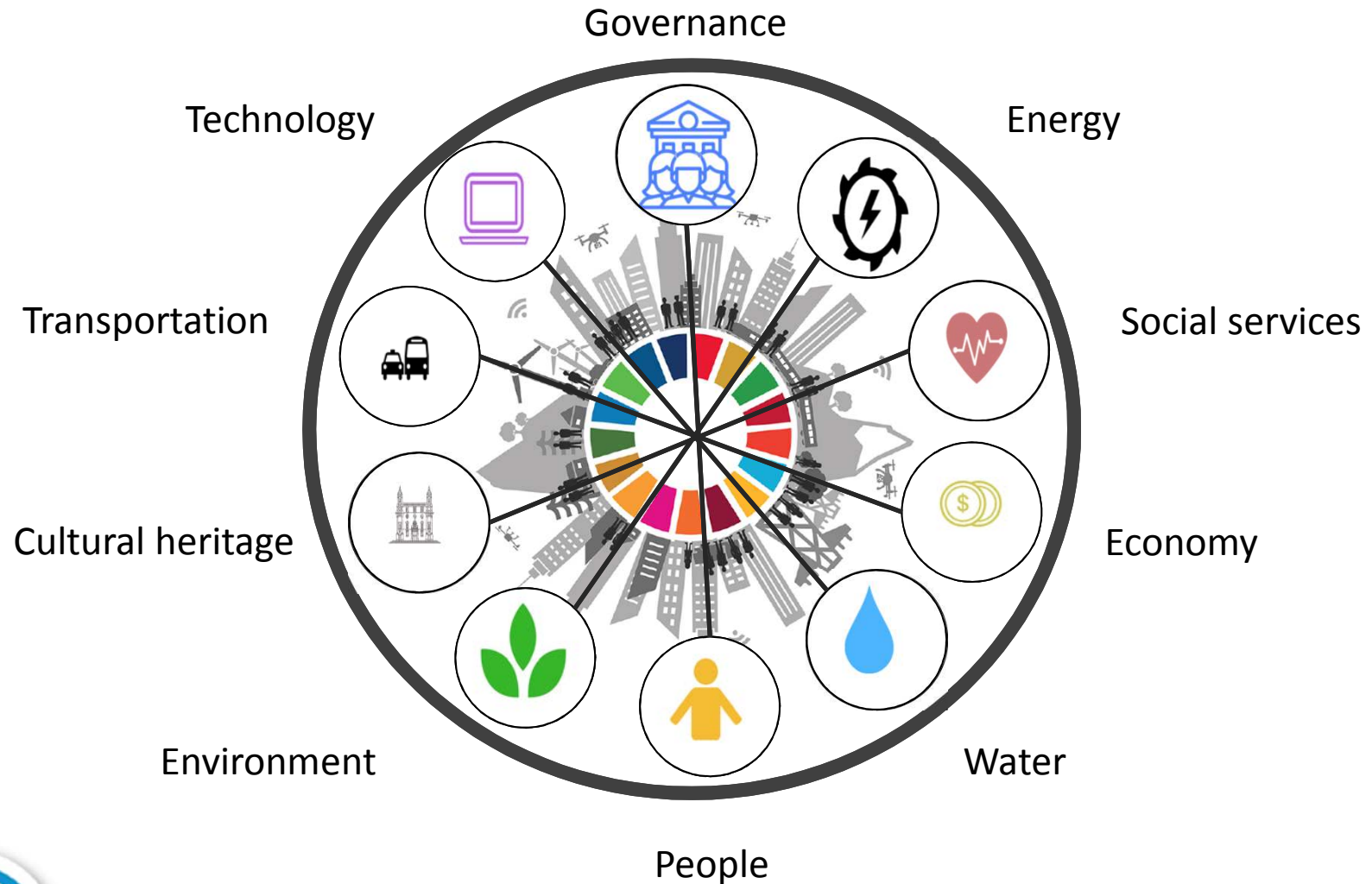


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# Sustainable and Resilient Communities and Cities



# The SDG Report 2018

## Interlinked nature of the SDGs

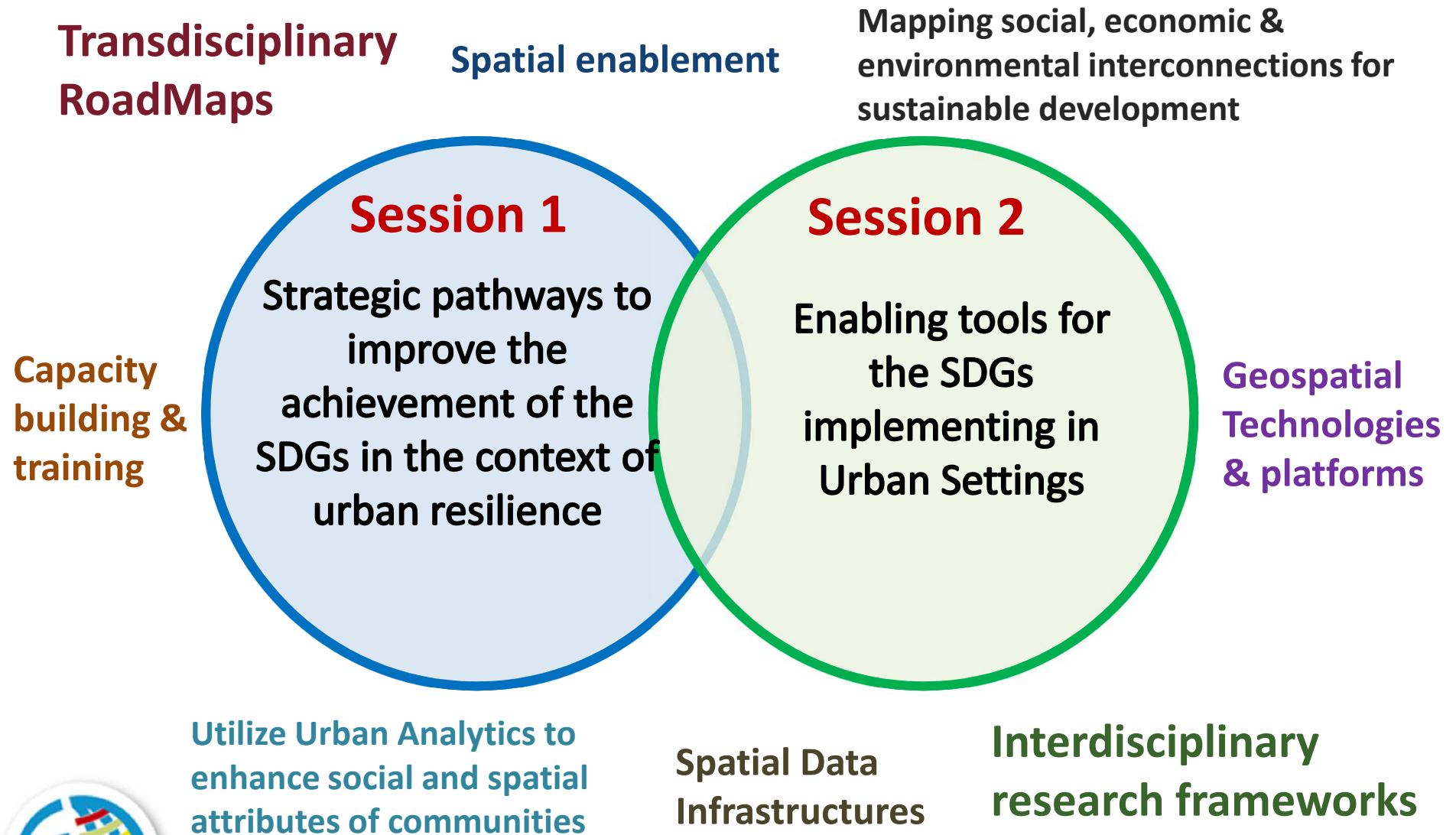
The Sustainable Development Goals Report  
2018



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# Requirements: Forum Themes



# Urban Sustainability



**3.5 billion**

3.5 billion people, half of the world's population, live in **cities**. By 2050, the urban population is expected to reach 6.5 billion



**3%**

Cities occupy just **3 percent of the Earth's land** but account for 60 to 80 percent of energy consumption and 75 percent of carbon emissions.



**828 million**

Currently 828 million people live in **slums**, and the number is rising.



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# Urban Connectivity

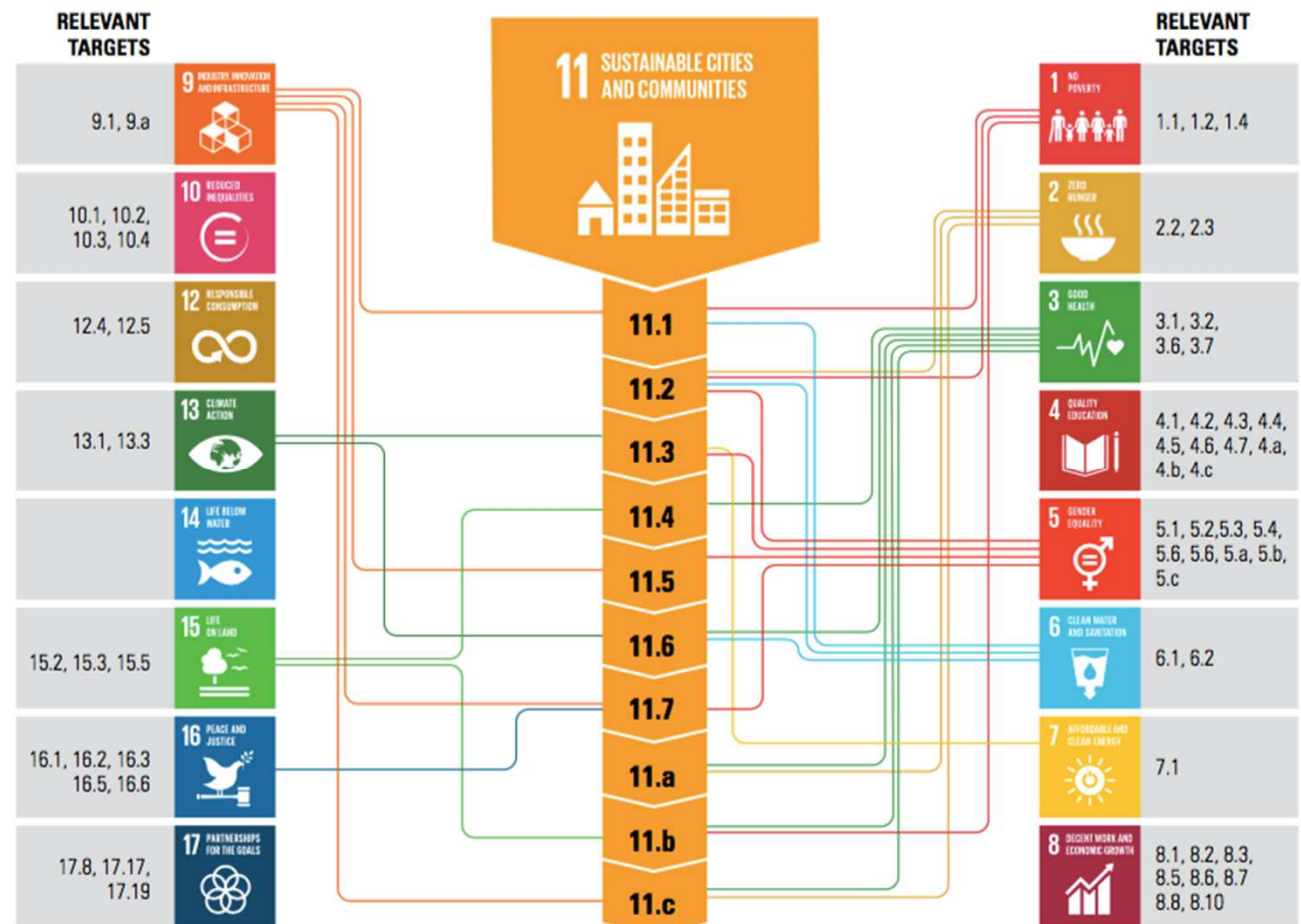
## Social, Economic and Environmental Urban Challenges



### SDG 11 Synthesis Report High Level Political Forum 2018



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# What is Urban Resilience?

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“The measurable ability of any urban system, with its inhabitants, to **maintain continuity through all shocks and stresses**, while **positively adapting and transforming toward sustainability**.

From earthquakes to flooding, rapid immigration to cyber-attacks, all cities face a range of **shocks and stresses, natural and human-made**.

Today, cities and city inhabitants are facing additional and amplified challenges as a result of **rapid urbanization**, a changing **climate and political instability**, among others.”



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# A Blueprint for Disaster Management RD&D

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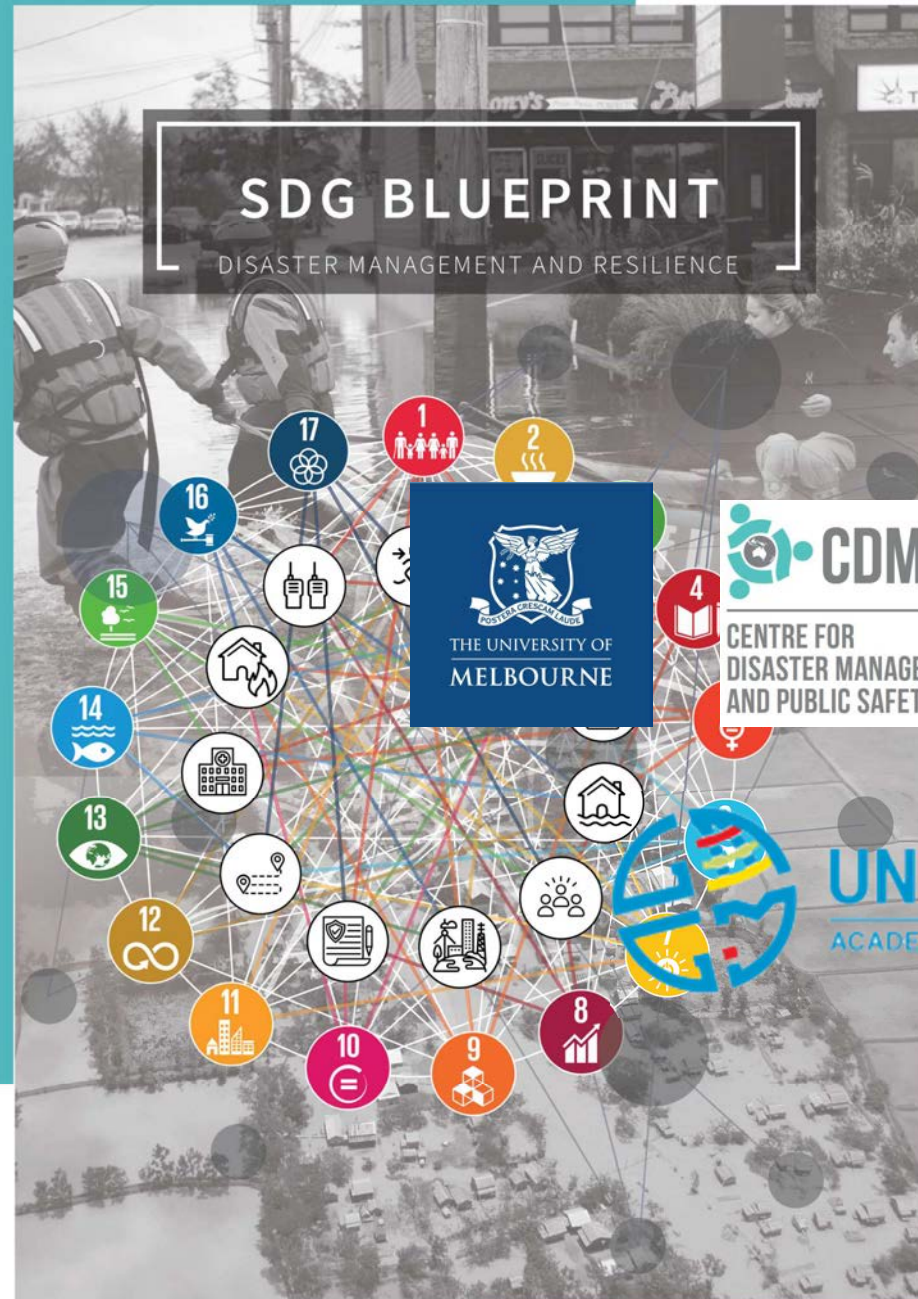
## Supporting the **SDGs**

**Intensive mapping of the links between disaster management and resilience research themes with the United Nations' Sustainable Development Goals and supporting trans-disciplinary research to overcome real-world challenges.**



## A Blueprint

## Supporting



Launch a  
A Smart  
Melbour



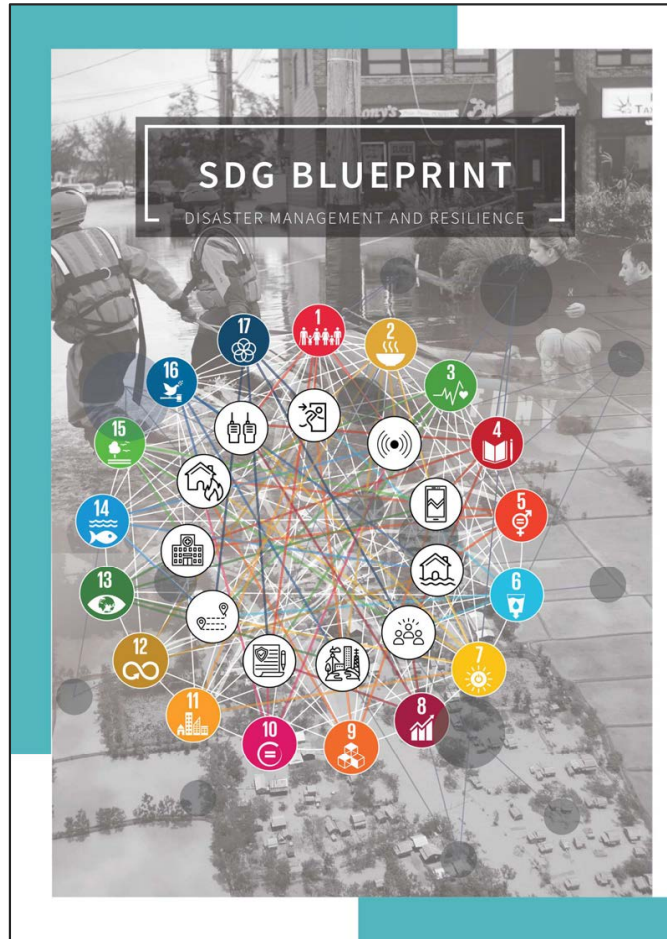
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Changing Landscape

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# A Blueprint for Disaster Management RD&D Supporting the **SDGs**



Sustainable  
Development



“Leave no one  
behind”

Adaptation



Transformation



Resilience  
Thinking



“Building back  
stronger”



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# International Symposium and Workshops

## You're invitation to:



International Symposium and Workshops

## A SMART SUSTAINABLE FUTURE FOR ALL

Enhancing Resilience in a Changing Landscape

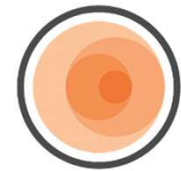
MELBOURNE, AUSTRALIA | 24 - 26 SEPTEMBER 2018



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Spatial  
Vision



Environment,  
Land, Water  
and Planning



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# International Symposium and Workshops

## Key Themes



Smart cities  
and sustainable  
development



Disaster resilience  
and emerging or  
changing global  
risks



Resilience and  
resilience impact of  
land and geospatial  
information for  
disaster risk  
management



Spatial (3D/nD),  
BIM and emerging  
technologies in  
advancing the UN  
SDGs



Global policy  
frameworks and  
local and national  
developments



Planning, design  
and management  
of critical  
infrastructures



New generation  
public safety  
technologies and  
platforms



Community  
resilience and  
participatory  
governance



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# Presentation Themes

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## Today's Discussions

### Connectivity

Urban Analytics  
Mapping SDG  
Indicators  
Monitoring  
Progress  
SDGs  
Interactions

### Sustainability

Land  
Administration  
Governance  
Framework

### Resilience

Resilient Cities  
Resilience  
Impact of  
National Land  
and Geospatial  
Systems  
Urban Resilience





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# Thank you!

**Professor Abbas Rajabifard**

Chair, UN-GGIM Academic Network

Director, Centre for SDIs and Land Administration

Melbourne School of Engineering, The University of Melbourne

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## **Session 1**

### **Strategic Pathways to Improve the Achievement of the SDGs in the Context of Urban Resilience**



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# SESSION 1

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## Strategic Pathways to Improve the Achievement of the SDGs in the Context of Urban Resilience



**Dr. Stuart Minchin**  
Chief of Division,  
Industry Innovation &  
Science, Environmental  
**Geoscience Australia**



**Mr. Kees de Zeeuw**  
Chair, UN-EG-  
LAM/Director,  
Kadaster International



**Prof. Josef Strobl**  
Advisory Board, UN-  
GGIM Academic  
Network/Lead,  
Interfaculty  
Department of  
Geoinformatics,  
**University of Salzburg**



**Prof. Monica Wachowicz**  
Advisory Board, UN-GGIM  
Academic Network/  
**University of New  
Brunswick**



**Ms. Maryam Rabiee**  
Research Associate, Centre  
for SDIs & Land  
Administration,  
**The University of  
Melbourne**



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## **Session 1 Panel Discussion** **International Organization Perspective**



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# SESSION 1 Panel Discussion

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## Strategic Pathways to Improve the Achievement of the SDGs in the Context of Urban Resilience

### International Organization Perspective



**Dr. Chryssy Potsiou**  
President, FIG



**Mr. Greg Scott**  
Inter-Regional  
Adviser, UN-GGIM



**Mr. Alvaro Barra**  
Land Administration  
& Geospatial  
Specialist, Global  
Land & Geospatial  
Unit, The World Bank



**Prof. Menno-Jan Kraak**  
President, ICA



**Prof. Dieter Fritsch**  
Vice Chair, UN-GGIM  
PSN



**Mr. Chris Body**  
OGC Standard



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# SESSION 1 Panel Discussion

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## Strategic Pathways to Improve the Achievement of the SDGs in the Context of Urban Resilience

### International Organization Perspective

- Frameworks for sustainable land administration and urbanization
- Standards and policies for measure sustainability and resilience
- Geospatial connectivity of the SDGs



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## **Session 2**

### **Requirements and Enabling Tools for Implementing the SDGs in Urban Settings**



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## SESSION 2

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### Requirements and Enabling Tools for Implementing the SDGs in Urban Settings



**Prof. Joep Crompvoets**  
Advisory Board, UN-GGIM  
Academic Network/KU  
Leuven



**Prof. Menno-Jan Kraak**  
Advisory Board, UN-GGIM  
Academic  
Network/University of  
Twente



**Mr. Alvaro Barra**  
Land Administration  
& Geospatial  
Specialist, Global  
Land & Geospatial  
Unit, Social Urban,  
Rural & Resilience  
GP, The World Bank



**Prof. Tom Veldkamp**  
Dean, ITC Faculty,  
University of Twente



**Prof. Abbas Rajabifard**  
Chair, UN-GGIM Academic  
Network/Director, Centre for  
SDIs & Land Administration,  
The University of Melbourne



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## **Session 2 Panel Discussion** **Legal and Organizational Perspective**



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# Session 2 Panel Discussion

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## Legal and Organizational Perspective



**Prof. Harlan Onsrud**  
Advisory Board, UN-GGIM  
Academic Network/Director,  
School of Computing &  
Information Science, University  
of Maine



**Dr. Kyoung-Soo Eom**  
Chief, United Nations  
Cartographic Section



**Dr. Christopher Williams**  
Director, UN-Habitat New  
York Office



**Ms. Irma Britton**  
Senior Editor, Environmental  
Engineering and Environmental  
Science, Taylor and Francis  
Group



**Mr. Frank Swiaczny**  
Assistant Director, UN DESA  
Population Division, New York



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## SESSION 2 Panel Discussion

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### Requirements and Enabling Tools for Implementing the SDGs in Urban Settings

#### Legal and Organizational Perspective

- Spatial Data Legal Principles Supporting the SDGs
- Accessibility to (geospatial) information for a sustainable world
- Mobility and Sustainable Cities

