







With funding support:



Disaster Resilient Cities: Technology for Disaster Risk Reduction to support Sendai Framework implementation at local level K-SAFETY EXPO 2016

"Cities can be the engine of social equity and economic opportunity. ... That is why it is so important that we work together to build the capacity of mayors and all those concerned in planning and running sustainable cities."¹

"Over the next 15 years, progress in science, technology and innovation will be key to delivering on all the SDGs – from poverty eradication to agriculture and food security, to energy, to water and sanitation, and climate change,"²

-UN Secretary General Ban Ki-moon

Event Background and Introduction

Cities are hubs for ideas, commerce, culture, science, productivity, social development and much more. At their best, cities have enabled people to advance socially and economically. Yet now that half of the world's population live in cities, making sustainable and resilient cities - amidst a changing climate, rapidly depleting resources, and unplanned urbanization - is one of our greatest challenges and opportunities.

Given that solutions to today's global challenges both require and benefit from technological innovations, there is a unique opportunity at the Korea International Safety & Security Expo (KINTEX) to showcase the Korean tech sector, which include some of the world's leading innovators, as well as inspire broader Korean tech sector engagement in developing solutions for sustainable development, including disaster risk reduction and climate change adaptation – particularly in cities.

This event aims to

- engage Korean local government authorities and tech innovators to present key innovations in technology for disaster risk reduction
- develop understanding of urban disaster risk
- spark innovation of technologies that may support solutions to preventing, mitigating and creating new risk

Development is building risk

During the ten-year timeframe 2005-2015 disasters exacted a heavy global toll: the well-being and safety of persons, communities and countries as a whole have been affected. Over 700 thousand people lost their lives, over 1.4 million were injured and approximately 23 million were made homeless as a result of disasters. Overall, more than 1.5 billion people were affected by disasters in various ways, with women, children and people in vulnerable situations disproportionately affected. The total economic loss was more than \$1.3 trillion.³

A framework for reducing risk, and preventing the creation of new risk

The Sendai Framework for Disaster Risk Reduction is the global blueprint for managing disaster risk adopted by UN Member States in March, 2015, in Sendai, Japan, at the Third UN World Conference on Disaster Risk Reduction. It sets clear targets for a substantial reduction in global disaster losses from man-made and natural hazards through to 2030, and links with other global accords such as the Sustainable Development Goals and the Paris Agreement on climate change. The framework provides practical guidance on actions and roles at national and local levels.

² UN Secretary-General Ban Ki-moon remarks at the first multi-stakeholder forum on science, technology and innovation for the Sustainable Development Goals (SDGs), 3 May 2016.

¹ UN Secretary-General Ban Ki-moon remarks at Sustainable City Days, New York, 12 December 2013.

³The Sendai Framework for Disaster Risk Reduction 2015-2030, United Nations, 2015

Making Cities Resilient: 'My city is getting ready!' global campaign for urban risk reduction

The global campaign has engaged over 3,300 cities to know more, invest wisely and build more safely. Cities that sign up share experience and know-how, and work to implement the Ten Essentials for Disaster Resilient Cities. 156 Korean cities and townships are currently participating.

Demand for technology

Innovation is embedded in the Sustainable Development Goals, together with advancing science and technology, as Goal 17. And the Sendai Framework asserts that cooperation at all levels remains pivotal in supporting the efforts of States, their national and local authorities, as well as communities and businesses, to reduce disaster risk, including the strengthening of technical assistance and technology transfer, among other areas.

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Date November 17, 2016

<u>Venue</u>

K-SAFETY EXPO 2016 KINTEX Conference Hall – *Room 204* Seoul, Republic of Korea

Organizers

- The United Nations Office for Disaster Risk Reduction Office in Northeast Asia and Global Education and Training Institute (UNISDR ONEA-GETI) (<u>http://www.unisdr.org/incheon</u>)
- The Korean Advanced Institute of Science and Technology (KAIST) Initiative for Disaster Studies (KIDS) (<u>http://www.kaist.ac.kr</u>)
- Pohang University of Science and Technology (<u>http://www.postech.ac.kr/</u>)
- ICLEI Local Governments for Sustainability (<u>http://www.iclei.org/</u>)

Targeted Audience

Korean city officials, Making Cities Resilient participants Research & Development and Innovation lab representatives: private sector, academia

Workshop Language:

Korean and English, with simultaneous interpretation.

Forum Objectives and Expected Outcomes

Objectives:

This forum will aim to spark innovation and develop understanding of urban disaster risk and the technologies that may support solutions to preventing, mitigating and creating new risk. The forum will:

- Share state-of-the-art technology and research for disaster risk reduction
- Showcase good practice and lessons learnt in Making Cities Resilient
- Build connections and understanding of disaster risk as an opportunity for innovation, R&D among city officials and the research and technology public and private sectors

Expected Outcomes:

- City officials learn about existing solutions and connect with providers
- Innovators better understand challenges and opportunities to innvovate for risk reduction
- Connections and partnerships fostered for Making Cities Resilient



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17 Nov 2016	Tentative Agenda
9:30-10:00	Registration
10:00 - 10:20	Opening Session
	Welcome & Opening Remarks: – Mr. JaeHyun Shim, President, National Disaster Management Research Institute, MPSS
	Why reduce disaster risk? Disaster Risk & Trends - Mr. Sanjaya Bhatia, Head, UNISDR ONEA-GETI
10:20 - 10:30	KeynoteSocio-technology for Disaster Management Technology, Disaster Risk and Disaster Studies- Dr. Heekyung Park, Director, KAIST Institute for Disaster Studies
10:30 - 11:00	Focus on Cities & Technology Are our cities at risk? Resilient Cities – Ms. Hana Kim, ICLEI Korea
	Advances in PS-LTE in Korea – Mr. Jin Hong Sim, Director, SafeNet Project Division, MPSS
11:00 - 12:00	Focus on Technology Session 1 Opening: Smart Computing & Systems for Disaster Resilient Cities : – Dr. Young-Seok Kim, Director, Institute of Disaster Management and Public Safety (IDMPS) / Deputy Director, Future IT Innovation Laboratory (i-Lab), POSTECH
	Social Networking Analysis - Data Mining and Analyses : – Dr. Mijung Kim, Senior Researcher, Mr. Ki-Young Shin, Researcher, Institute for Disaster Management & Public Safety (IDMPS), Future IT Innovation Laboratory (POSTECH i-Lab)
12:00 - 13:00	Networking Lunch (on-site)
13:00 - 14:00	Focus on Technology Session 2 DARPA Robotics Challenge Technical Review: Team KAIST – Dr. Jungho Lee, CEO, Rainbow Co. Q&A
14:00 - 15:00	Focus on Technology Session 3 Lessons from Hyogo: Flood Defence Technology – Dr. Yasuo Kawawaki, Director of EMECS secretariat, Kobe, Hyogo Prefecture, Japan
15:00 – 15:30	<u>Closing Session</u> <u>Q&A:</u> How are Korean cities getting disaster resilient? <i>Making Cities Resilient campaign</i> – <i>MPSS</i> <u>Closing remarks</u> - <i>UNISDR</i>