

**INVITATIONAL ON-LINE EVENT**  
**ARC2020: Achieving Resilient Cities & Communities**  
*Friday 13<sup>th</sup> and 20<sup>th</sup> November 2020*

**Abstracts and Questions Day 1: Friday 13<sup>th</sup> November**

**#1. Achieving Resilient Cities and Communities**

*Liam McCarton and Sean O'Hogain*

\*Development Technology in the Community (DTC) Research Group, Technological University Dublin. Email:  
[liam.mccarton@tudublin.ie](mailto:liam.mccarton@tudublin.ie); [sean.ohogain@tudublin.ie](mailto:sean.ohogain@tudublin.ie)

**Abstract**

The cities and communities of the 21st Century face huge challenges in coping with climate change, energy demands, water and wastewater supply together with food and health considerations. ARCC – Achieving Resilient Cities & Communities is a series of conferences and workshops jointly hosted by the DTC Research Group within the Technological University Dublin, in partnership with Habitat for Humanity. These events are part of the European Union (EU) development education and awareness raising (DEAR) program (EuropeAid/ 151103/ DH/ ACT/ Multi) and the “Build Solid Ground Campaign” which aims to inform and actively engage EU citizens in actions towards achieving Sustainable Development Goal 11: Sustainable Cities and Communities. Liam and Sean will present an outline of the tools and resources developed within this EU project. These tools enable users to analyse the vulnerability of their community to shocks and stresses. They also facilitate users to adopt Nature Based Solutions (NBS) to reduce Vulnerability, increase Diversity and increase Resilience within their community.

**Questions for discussion**

- 1) In your experiences, are there any differences between Grey Infrastructure, Green Infrastructure and Hybrid Infrastructure solutions?
- 2) In your experiences, what are the barriers to adopting Nature Based Solutions?
- 3) Are there any differences to the application of Nature Based Solutions in Rural and Urban situations?

**#2. Urban Nature-Based Solutions: Theory and Multi-functionality**

*Victor Beumer*

Independent expert on Urban Nature-based Solutions & Climate adaptation. Utrecht, The Netherlands. Email:  
[vbeumer@hotmail.com](mailto:vbeumer@hotmail.com)

**Abstract**

Victor will give an overview of terminology and will explain the basics of nature-based solutions, green infrastructure and hybrid solutions. What are the principles to take into account when implementing these solutions in your cities and how can you involve multiple stakeholders and achieve a working business case based on multiple benefits and the desires of multiple stakeholders.

**Questions for discussion**

- 1) Do you know any *hybrid nature-based solutions* in the city you live or work and what benefit do they supply?
- 2) Do you know any *complex nature-based solutions* in the city you live or work and what stakeholders have been connected? Also, possible to make an educated guess on this.

### #3. Nature-Based Solutions and Smart Urban Water Grids

*Albert Jansen*

Water Innovation Consulting- (ex. TNO), Wolvenplein 2 B, 3512CJ Utrecht, The Netherlands. Email: [albert.wic@ziggo.nl](mailto:albert.wic@ziggo.nl)

#### **Abstract**

Water problems are stressing cities. Centralized systems are crunching due to climate change pollution leading to lower amount of drinking water and with lower quality. Circular economy demands cities to better manage their resources like energy and organic content of wastewater. So, we need a sustainable city concept using Nature (heaven-rain and sun energy together with water treatment technologies in nature and in buildings can solve these problems).

#### **Questions for discussion**

- 1) How high are the challenges your city is suffering (water shortage, water floodings, drinking water quality heat, no circular use of wastewater)?
- 2) How to design optimal future city plans?
- 3) How to convince policy makers of new opportunities?

### #4. Green Streets in Barcelona

*Roberto Soto*

Institut Municipal d'Urbanisme, IMU, Barcelona, Spain. Email: [rsotof@bcn.cat](mailto:rsotof@bcn.cat)

#### **Abstract**

Urban growth is one of the main causes for climate change acceleration and alteration of natural water cycles. Sustainable Urban Drainage Systems (SUDS) emerge in this context as a solution that not only contributes to improving drainage, water storage and filtration systems, but is also used in strategies to create a resilient urban environment. In this presentation, Roberto will show the main conceptual principles and practical application of SUDS, using as examples the projects developed in the city of Barcelona.

#### **Questions for discussion**

- 1) Are SUDS specifically appropriate for the context of your city/region/country? What are the main challenges for their construction and use?
- 2) Which are the actions that cities have to take to boost a massive use of SUDS?