## TS-40
### ECOLOGICAL AND DIGITAL TRANSITION IN CITIES: MEASURING ECOSYSTEM SERVICES FOR URBAN PLANNING AND DESIGN

*Keywords: Ecosystem Services; Urban Transition; Urban Planning and Design; Data-Driven Approaches; Urban Regeneration; Urban Governance*

The session aims to discuss the potential of data-driven urban planning approaches in enhancing ecosystem services (ESs) for the design of sustainable urban transformations. In the frame of the ecological, digital, and inclusive transition of cities, the demand for protecting natural ecosystems and biodiversity is rasining. Central for biodiversity, ecosystem services allow for improving the supply of goods and services for the well-being of society by incorporating the ability to adapt to risks and future climate changes while improving resilience, health and quality of life. The scope of the session is to operate a technological nexus between Territorial Intelligence (TI) and zoning rules for handling urban/ territorial complexity through data-driven planning approaches able to identify, measure, understand, and manage the complexity of urban/territorial fragmentation through urban general plans and projects. In this context, urban regeneration emerges as a central focus for future development policies for the maintenance of ecosystems and the provision of their services. Through an interdisciplinary lens, the session seeks to experiment with the potential of data-driven urban planning approaches to support the innovations needed to embed ecosystem services as part of future urban development strategies. Two interrelated drivers guide the session: (i) unveiling context transition dynamics by exploiting the potential of urban informatics (big/open data) in understanding context complexity for planning urban ES (ii) constructing an urban governance and planning environment to identify key drivers for urban transformations focused on the enhancement of urban ESs.

### CHAIRS

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Full Professor in Urban Planning she has coordinated several international and national researches funded by public and private bodies on regional and urban planning and urban design. Authors of several cities and municipalities Comprehensive plans and more than 200 scientific publications she is currently Scientific Coordinator for the Goal 4.6 and the Pilot Project 4.6.1 of the NRRP-funded Innovation Ecosystem Tech4You project.

**Carmelina Bevilacqua** - PDTA Department, Sapienza University of Rome, Italy.
Associated Professor in Urban Planning she has coordinated several EU (7FP-H2020) and National research projects (PRIN) addressing urban complexity from the data-driven planning for cities' transition and the sustainability of urban transformation. Author of more than 100 scientific publications and editor of several research-related international conferences, she is currently Principal Investigator for the NRRP-PRIN funded ECO-SET research project.

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Researcher in Urban Planning his main research interests focus on urban regeneration and the planning of cities transition by exploring data-driven planning approaches for investigating urban complexity. Author of several publications on the topic, and former Marie Curie Fellow for the ZES Project (H2020), he is currently Principal Investigator for the NRRP-funded Project PLANET - Planning ecosystem services for cities in transition.