ADVANCES IN QUANTIFYING THE IMPACT OF BLUE GREEN INFRASTRUCTURE SYSTEMS ON HUMAN HEALTH AND WELLBEING

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Background: This paper presents the synthesis of author's research group results, starting with UNESCO endorsed IUWM (Integrated Urban Water Management) project, continuing with EU Climate_KIC project: Blue Green Dream (BGS/BGD) and 2 ongoing EU projects: euPOLIS and HEART, in which the Institute of Public Health of Serbia, BATUT and KBC Dr Dragiša Mišović play significant role as medical partners.

Methods and Objectives: The key hypothesis of this research is that properly planned, maintained and managed urban water systems, interacting with urban green infrastructure (GI) can create locally improved environmental conditions which have positive impacts on human health and well-being and that their long-term impact can be quantified if supported by proper selection of sensors and monitoring system, integrated with advanced data acquisition, processing and management. These systems need to be supported by all local stakeholders, their awareness raising, combined with clinical and non-clinical data supported by advanced information and knowledge creation and management.

The paper demonstrates that, the above methodology can predict and quantify mitigation of negative impact of climate changes and sets up the implementation framework of the projects' paradigm at global scale.

The long-term deliverable is a framework for extrapolation of the projects' methodology to the other parts of the demo sites (Athens, Belgrade, Gladsaxe, Łodz, Århus), in the follower cities (Bogota, Limassol, Palermo, Shanghai and Trebinje) and scaling-up to any other city on the planet Earth.

Results: Preliminary results achieved in the ongoing projects will be presented and will be open for discussion.

Conclusions: The results achieved in these ongoing projects will be open for further inputs and will serve as a basis for developing implementation strategies at both regional and global scale.

Keywords: Blue-Green Systems, Green infrastructure, Public Health and Wellbeing, Impact quantification, Modelling