

## **Cities, Communities and Homes: Is the Urban Future Livable?**

- **Paper / Proposal Title:**

Reflecting individual preferences and spatiality in livability measurements: A livability assessment platform for the city of Salzburg

- **Format:**

Written paper and/or verbal presentation (along with the live demonstration of the tool)

- **Author(s) Name:**

Anna Kovács-Győri

- **University or Company Affiliation:**

University of Salzburg, Z\_GIS

- **Abstract (300 words):**

Spatial characteristics along with the subjectivity of the individual perception and preferences are significant in livability and its analysis. At the same time, interpreting and reflecting spatiality and subjectivity are among the most challenging tasks when assessing livability. In this regard, there are many questions arisen, such as: *How can we weight the livability factors to determine overall livability? What is the optimal spatial scale to map them? How can we integrate the citizens' perception and preferences?*

As an attempt to handle these issues, we developed an assessment platform where preferences of the user are mapped regarding urban form and urban functions, considering other non-physical modifying effects such as socio-economic characteristics or pollution. We defined a set of factors, their range of values, and spatial scale for each category. There are three spatial scales, depending on the interpretation of a particular factor: personal scale (direct environment or point-based characteristics), neighborhood scale, and city scale.

As analysis units, we defined meaningful place units (MPU) based on the human perception, by delineating physical and psychological (both artificial and natural) barriers. By doing so, we can represent spatial units more appropriately according to the specific analysis purposes than traditional administrative boundaries.

The application of the assessment platform can be various, ranging from choosing the next place to live to planning aspects (e.g. public participatory). There are two options for the user: choosing an area and check to what extent the given preferences are met, or setting the preferences, and an area which is fulfilling those criteria the most is selected by the algorithm. By adding a temporal layer, some hidden phenomena can also be traced. As an example to confirm our findings, we show the existing platform for the city of Salzburg.

- **Author(s) Biography (200 words each):**

Anna Kovács-Győri has been a PhD candidate in Applied Geoinformatics at the University of Salzburg since 2015. In her research, she focuses on livability assessment and the role of spatiality, mobility, and human scale in it. The main purpose of this assessment framework is to promote urban planning and decision making by exploring underlying urban interrelationships and phenomena using a GIS (geographic information system) approach.