

TEMPLATE

Output factsheet: Tools

Version 1

Project index number and acronym	CE174, UGB
Lead partner	Municipality of 12th District of Budapest (Hegyvidék)
Output number and title	Output O.T1.1 Smart Model for GIS-based urban green spaces assessment and Green Infrastructure planning
Responsible partner (PP name and number)	PP3, Research Studios Austria - Studio iSPACE
Project website	https://www.interreg-central.eu/Content.Node/UGB.html
Delivery date	30.11.2018.

Summary description of the key features of the tool (developed and/or implemented)

Max. 2000 characters

The model on GIS-based solutions supplies the user with practical instructions on jointly elaborated and evaluated methods and tools for urban green space (UGS) assessment. As a thematic and methodic framework, it serves as a compilation of approaches where users can find most fitting solutions for their specific interests and purposes and consequently implement them into local planning and development policies.

It builds on spatial indicators incorporating the ideas of the framework concept and follows two analytic paths: the vertical one describes the complexity of indicators from basic figures to integrative spatial analyses and the horizontal one covers the in-depth analysis of green services from inventory maintenance efforts to sustainability, attractiveness, and profitability to complex fair supply studies for residents. The central chapter introduces a widespread compilation of potential indicators. Each indicator is presented with its scientific and practical significance for urban green spaces (UGS) monitoring and assessment with recommended (spatial) reference units and roles in applications and tools. A supplementary excel tool gives an instruction for creating an indicator system. Another main chapter deals with the implementation of GIS-based applications and tools and gives instructions on the appropriate usage of the tool. The thematic part of choosing reasonable indicator paths is documented, followed by a description of the technical path consisting of data management, analytic routines, and visualisation options. The concepts and approaches of the parallel operating other thematic working groups (TWGs) have been considered in the GIS model in order to identify and utilise interconnections for the pilot activities, the smart governance manual and further actions. The document is closed by best practice examples of analytic and technical paths and the implementations and main findings of the pilot activities.

NUTS region(s) where the tool has been developed and/or implemented (relevant NUTS level)

Max. 500 characters

The model supplies thematic working group (TWG) members with initial best practice examples as a guideline for conducting the pilots and supports them with the elaboration of local implementation plans. The tool was jointly developed and applied in the functional urban areas of Salzburg (AT323), Padova (ITD36), and Zadar (HR033).

Expected impact and benefits of the tool for the concerned territories and target groups

Max. 1.000 characters

During the pilot actions, each thematic working group 1 member validated parts of the draft model in accordance with local data availability and analytic purposes and integrated the experiences into the evolvement of the model. GIS-based solutions were widely used in order to pursue the goals in each piloting area although there have been different starting points. Zadar put many efforts in the building of an initial green cadastre, while Padova and Salzburg could build on existing data and focus on their enrichment and complex spatial analyses. All partners created valuable foundations for future green strategies and policies in combination with innovative assessment and management systems for the planning and administrative sector as well as a remarkable raise of consciousness of green values amongst citizens.

The target groups addressed are GIS/IT departments in cooperation with planning and maintenance departments (spatial planning, natural resources, nature conservation, agriculture, maintenance of gardens and green spaces, assets management) of local and regional public administrations as well as independent

regional and spatial planners and researchers working on providing decision support materials for public authorities. The model supports:

- the set-up of a strategy of collecting suitable data for green space assessment, monitoring and development (example Zadar county - departments for county assets management, spatial and economic development planning, establishment and management of the local public services)
- enhancing databases on green spaces and defining indicators for assessment of green spaces (example City of Padua - department environment and space, IT department)
- use of existing data for planning, monitoring and assessment indicators to support shaping functional and sustainable regional spatial development plans (example Regional authorities Salzburg, GIS and spatial planning department)

The model can help authorities to reach goals/fulfil duties and responsibilities such as:

- proving sufficient green infrastructure for leisure to their population (mandate for supply, ensuring quality of life)
- planning and ensuring green corridors (nature preservation, preservation of biodiversity)
- securing valuable cultivated areas (secure regional food and wood supply, short transportation route - CO2 savings, ground sealing - climate change mitigation)
- prioritising different ecosystem services and identifying and addressing land use conflicts

Sustainability of the tool and its transferability to other territories and stakeholders

Max. 1000 characters

Local stakeholder and target groups have been constantly included into the application process and this strong interconnection will secure a long-term impact of the developed solutions. The smart model is not suitable only for TWG 1 actions. It is transferable at transnational level and thus can be useful for all interested institutions. The indicator set as the central component is generic and flexible, which means that it can easily be transferred to other regions respecting the specific analytical focus and data availability. Use cases can be the analysis of touristic potentials, fair green space supply, or economic valorisations. The methods in the model serve as a foundation for decision-making processes in terms of green space assessment and management relevant not only for public bodies, but also for the private sector, e.g. planning agencies or community associations. The findings of the pilot applications were incorporated into the model in the form of info boxes for practical use.

Lessons learned from the development/implementation process of the tool and added value of transnational cooperation

Max. 1000 characters

By the transnational cooperation, many parts of model could be tested and the results show that the presented methods are useful and suitable for different initial situations and analytical goals from baseline inventory to integrative analyses of green values. The experiences from scientific workshops and communication activities show that it is essential to include people's perceptions and expectations to all kind of planning processes. Therefore, we included potential "qualitative" indicators and recommended data collection techniques. The data collection app for citizens developed by the Padova group follows the concepts of GIS-based implementation design in this tool and offers a new technology to interested partners in the UGB consortium. Additionally, the

consideration of innovative solutions of other TWGs gave a benefit to the model in terms of completing the indicator system and drafting communication and dissemination activities.

References to relevant deliverables and web-links If applicable, pictures or images to be provided as annex

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The GIS model is based on a framework concept, which has been transferred to a first draft version of the model. After testing selected components of the model during the pilots, it has been updated to a final version.

- D.T1.3.1 Framework concept for Thematic WG1
- D.T1.3.3 Final Model for GIS-based UGS assessment and GI planning: [https://www.interreg-central.eu/Content.Node/UGB/FINAL-MODEL-ON-GIS-BASED-SOLUTIONS-FOR-UGS-ASSESSMENT-\(TWG-1\).pdf](https://www.interreg-central.eu/Content.Node/UGB/FINAL-MODEL-ON-GIS-BASED-SOLUTIONS-FOR-UGS-ASSESSMENT-(TWG-1).pdf)

The main results and findings of the smart models of all TWGs will be integrated into the Smart Governance Manual for planners and administration as the final output of the project.

- D.T1.6.2 Smart Governance Manual on integrated UGS management in English: <https://www.interreg-central.eu/Content.Node/UGB/SMART-GOVERNANCE-MANUAL-ON-INTEGRATED-URBAN-GREEN-SPACE-MANA.pdf>