D.T2.1.1 Pilot Activity Concepts for thematic working group 1- Pilot region Salzburg

Concepts of pilot actions on GIS-based models in the individual project regions and pilot sites

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1. Background and objectives

Regional specifications will be taken into account in terms of respecting the development goals from local strategies (see local assessment documents) as well as the distinct functions and benefits of UGS that shall be preserved as part of cultural heritage and identification space. Consequently, the clear definition of motivation for the TWG 1 partners' contributions to the smart GIS model will be supplied by defining local challenges, specific problems, and aspired results. GIS-based solutions particularly aim at the design of semi-automated processes to efficiently identify, analyze, and display phenomena on multiple scale levels. Integrative analyses will be conducted with the help of spatial indicators. In order to profit from public or expert knowledge and facilitate the usability, the tools to be designed should contain interactive elements. The choice of the right indicators, appropriate GIS methods, and application strategies is essential for elaborating durable solutions and preserving regional assets alongside a continuous exchange with the associated stakeholders.

After some theoretical foundations, the core of the model introduces a widespread compilation of indicators that are relevant for an integrative green space assessment. However, this indicator system is not supposed to be complete, but covers five analytic pillars that were identified as most important in the context of TWG 1 activities. It is still open for extensions and adaptations for other users. Furthermore, not all potential indicators will be applied in all pilot sites because an effective assessment needs to take into consideration aspects which may differ in every FUA, e.g. existence and quality of data, individual challenges, or benefits to be preserved. TWG 1 members will pick and test their most suitable indicators with appropriate implementation and communication techniques to tackle their challenges. The experiences from these pilot studies will directly be used to ameliorate the model.

Tackled challenges

The pilot site covers a continuous area with a high green share and comprises a transition from urban to rural regions by including the city of Salzburg and ten smaller municipalities. As already stated in the local assessment, there is no common system for green space monitoring or evaluation. Within the pilot activities, a possible method for the assessment of green spaces (mostly recreation grounds), which is supposed to help to fill this void, will be tested. In the future, this method can be amplified in order to fulfill the qualifications for the evaluation of all existing green space types. The main contribution to the GIS model is to establish a tool considering the fact that different types of green have their own requirements regarding availability, configuration, functionalities, and management costs.

Motivation and aspired results

Besides the aforementioned lack of a green space assessment system, the increasing settlement pressure especially in the regions surrounding the city of Salzburg was a motivation to assess the quality of existing recreational areas. The results of the pilot activities are expected to help to determine the quality of existing recreational green areas, define areas with supply shortfalls, and to display the current situation of recreation grounds along the gradient from a rather urban area to a rural region. The envisaged strategy for the implementation and capitalization of the project results into the public and private sector of the FUA Upper Salzach Valley is the constant involvement of target groups in the development process of the local contributions to the GIS model.

Starting point

The city of Salzburg is part of several networks and associations aiming at environmental issues as illustrated in the local assessment, where the demand of innovative solutions in this research and application field is pointed out as well. Also GIS-based solutions referring to green space evaluation, besides some studies on green indices, are a shortcoming within the pilot area. Therefore, the draft model used as the foundation of the pilot activities had to be built up from scratch, although most indicators are based on relevant scientific literature. The data inputs needed mostly do already exist, but some additional data need to be acquired during the pilot activity phase. Furthermore, existing contacts to the University of Salzburg and relevant departments of the state government will be utilized.

2. General implementation strategies

In this chapter, the concrete set of methods is described for each pilot region, which in this case is the set of indicators and the implementation and application process. Each TWG member is supposed to choose an appropriate indicator set from the model to face local challenges and work on one or more predefined thematic pillars. Alongside this thematic perspective, the model supplies many useful approaches for the technical side, too (cf. pursuit of logical and technical paths). In order to document the implementation steps in a harmonized way, a logical structure has been designed where every partner indicates the reference parameter and spatial dimension of each indicator in use as well as the corresponding data, metadata, calculation routines and display options. The choice and communication strategies should be motivated in terms of relevance for the stakeholders, especially regarding community involvement and capacity building directly linking to the project's other TWGs. This applies particularly to the key indicators because of their high analytic, descriptive, and integrative value.

Contribution to testing the model

The draft model is supposed to offer inputs for different fields of investigation/integrative analyses (defined as key indicators) like recreational value, ecological functions, or the potential of the economic value of green spaces. Therefore, composite indicators for in-depth analysis of specific phenomena belonging to the pillars Maintenance, Sustainability, Attractiveness, and Profitability, which can be adapted in order to fulfill the qualifications to assess specified green space types, are provided. Additionally, some basic indicators or figures that can offer additional information or are needed as input for the composite indicators are defined. Since the pilot activities mainly focuses on the evaluation of the recreational value of leisure spaces like parks or playgrounds and the fulfillment of the demand of green space functions, which aims at the detection of green space supply and shortcomings within the pilot site, it helps to identify whether the pillars and the assigned indicators are suitable to fulfill the needs of specific tasks like the ones carried out within the pilot activities.

Chosen elements of the model

Since one single indicator is not significant for evaluation, for the pilot activities an adapted indicator set had to be developed. Therefore, it was necessary to select appropriate indicators that consider various aspects being meaningful for our task. Another criterion generally to be considered within this step is the availability or easy ascertainability of required data for the derivation of the indicators. With these as-

pects in mind, suitable indicators from the previously defined pillars and the basic figures have been picked for the further analysis of the key indicators, which are based on the expertise of iSPACE. Among others, the following indicators have been selected:

1. Basic *(basic figures mainly needed for inventory aspects or derivation of composite and key indicators)*:
    - Existence of water bodies within parks [y/n]
    - Protection status of a single green space [y/n]
2. Maintenance *(inventory of UGS types, effort and costs for conservation)*:
    - Density of public trees per grid cell [n/ha]
    - Share of all public green areas per grid cell [%]
3. Sustainability *(supply of natural UGS functions)*:
    - Green space per capita [m^2/person]
    - Share of all green areas per grid cell [%]
4. Attractiveness *(accessibility, usage and satisfaction with UGS, contribution to liveability and quality of life)*:
    - Mean distance to the three closest public transport stops [m]
    - Number of children in walking distance of playgrounds [n/playground]
    - Share of residents within walking distance (500 m)/biking distance (2 km) of recreation grounds [%]
5. Profitability *(economic potential of agricultural, recreational, and touristic use of UGS)*:
    - Share of agricultural and forestry areas with good soil conditions [%]
    - Share of residential area within walking distance of 1 km from recreation grounds [%]

The list of indicators might be altered during the pilot activities because not all data availability issues are fully cleared at this stage of the project.

Since the main goal during the pilot activity phase is the evaluation of the recreational value of green spaces and green space supply, especially indicators belonging to the Attractiveness pillar, which has been created with a focus on recreational areas, will be implemented. The full list of chosen indicators along with their properties like source, spatial dimension, or derivation procedure can be viewed in the annex as it is too long to be included within this section.

Input from the local assessment

Some information included in the local assessment has already been used within the development of the draft model in the previous step of the project. This is e.g. information regarding the elements of green space that are present in the pilot area. Since the local assessment e.g. depicts large sizes of specific land cover classes like protected areas or surface water bodies, this information was used to create some of the indicators included in the indicator set and will also be part of the pilot activities.

Another issue is data availability. The local assessment already includes some information regarding existing geodata provided by the federal state referring to different land cover and green space types, which is a valuable input for the pilot activities.

Role of stakeholder platform

The conflict of interests in terms of preferred land use types and consequently functional value is treated by local guidelines, strategies and administrative documents. In order to determine the intentions of the local authorities and to point out the important value of green spaces in functional urban areas, the local assessments serve as basis, but a permanent exchange with public bodies and other stakeholders is mandatory for an effective capitalization of results. This includes particularly the local urban and rural municipalities and the relevant departments of the state government (spatial planning, environmental protection, and energy). It is also planned to get in contact and productive exchange with private advisory, assessment and planning companies that deal with green space management and general environmental issues. Another group of local stakeholders is education and research institutions, mainly the University of Salzburg, where there can be built up on successful project cooperations in the past. Currently, the University of Salzburg conducts a project on urban parks, which provides an opportunity for scientific exchange.

Potential interconnection with other project activities

GIS-based approaches can be an interesting issue for public participation and community involvement referring to green space planning and green space maintenance, which is task of TWG 2 within the UGB project. This could be done by using a Public Participation GIS (PPGIS). These systems aim at the involvement of the public or specific stakeholders in decision-making processes (e.g. in neighborhood planning activities) via an Online GIS where every invited person is allowed to create information like comments or suggestions to improvement regarding existing green space infrastructure. Therefore, data derived from PPGIS, but also from indicator-based assessment tools like the one created TWG 1 can be a valuable input for issues regarding green space governance, which is part of the work of TWG 3.

Furthermore, information about the perception of the qualities and the lacks of existing UGS by citizens can be interesting qualitative information within a GIS model aiming at green space assessment, especially when referring to green space supply and infrastructure but also recreational value.

Evaluation indicators to measure the success of the activities

In analogy to centrality degrees of settlements, green infrastructure zones can be attributed with a local, regional, or even transregional meaning, leading to different accessibility requirements. Thus, a meta-indicator will be elaborated displaying the interconnection between configuration, functions, demand, and accessibility (integrated green index). The challenge here is to make different types of green comparable. This requires a dynamic and flexible approach, such as the used indicator system. If considered reasonable, the functional values displayed by the thematic pillars will partly be interrelated with costs in order to finally get an order of priority of green spaces values and management actions. Establishing a certain flexibility in the GIS methods and tools is necessary because the conversion of functional values into costs is sometimes critical. A dynamic approach will facilitate an involvement of target groups into the development and application process by making use of feedback loops.

3. Procedure and schedule

The most important information regarding upcoming reports that deal with the pilot activities is the suitability of the selected indicators for the defined tasks of the individual project partners. Therefore, within every pilot region, the indicators and their results need to be documented. Depending on the expressiveness/value of the result, the indicators should be assessed as suitable or not suitable for the overall goal. Within this context, it is necessary to document changes within the indicator set along with the reasons why these changes have been required (e.g. adding/changing of indicators if some lacks and needs within the already existing set are discovered during the pilot activities). Regarding technical issues, the derivation procedure also has to be documented in a detailed way in order to make it understandable and reproducible for the other partners in the working group. Also any collaborations with external people or institutions like universities and other research facilities plus their importance and additional value for the pilot actions and the final model need to be mentioned within the reports. As a last point, some evaluation indicators need to be defined and documented (e.g. the success of stakeholder platforms in terms of the number of people attending meetings).

The subsequent description of the pilot activity includes detailed descriptions of the following elements:

- **Description of the pilot activities:** Partners need to deliver an overview of the planned activities including their aim and a short description of the required steps
- **Overall measures planned:** Description of the planned execution of the pilot activities answering the following questions: How will the planned activities be conducted? Who will be involved?
- **Individual steps and timeline:** Tabular overview of individual steps along with a timeline, involved internal and external people, locations, necessity of the steps for the pilot action, and costs
- **Outcomes and interdependencies between the individual steps:** Description of the expected results of the individual steps and how/why they are important for the following tasks
- **Additional details:** Additional information like technical descriptions or more details regarding elements from the draft model chosen for implementation

Overall description and aim of the pilot activity

Several indicators along with their required operations and derivation procedures have already defined. During the pilot activities, some of these elements might be adapted if necessary. Possibly some indicators will be changed as well since at this point in some cases data availability is not completely clear. Nevertheless, the current status of the indicator set is displayed in the table included in the annex of this document. So far, 16 different composite indicators supplemented by three basic figures have been selected for further analysis, which will mostly be conducted with the help of the software ArcGIS, a de facto standard software product developed by Esri (USA) for working with geospatial information and maps. Additionally, a Web-based application might be developed. In the context of the pilot activities, ArcGIS will be used to perform several different types of analysis methods (cf. next section).

Along with the conduction of the pilot activities, different target groups will be involved through an ongoing process in order to present the project to stakeholders that can benefit from the results. Additionally, some project results or data derived by the University of Salzburg might be used, since a frequent contact has been established (also with regard to the UGB project). Before the implementation phase, the final set of indicators needs to be developed, which will happen until the end of November. This will be followed by the indicator calculation (spatial analyses and data modelling) and the integrative analysis/key

indicator derivation. The results of the calculation and the integrative phase afterwards will be mapped and visualized. To assess the outcomes, some kind of evaluation indicators need to be created, which will be implemented during an evaluation phase at the end of the pilot actions. A continuous procedure during the whole pilot phase will be the adaptation and finalization of the GIS model until the end of May 2018.

Planned measures

A major part of the tasks required for the pilot activities will be carried out using ArcGIS, but maybe also Web-GIS applications could be utilized in order to provide an interactive tool for green space evaluation or at least for visualization purposes. Especially important for the pilot activities are GIS-based methods like network analysis and arithmetic overlay. Network analysis focuses e.g. on the analysis of the fastest way from a neighborhood to a park or on the service area of a specific green space (e.g. area/population/demographic structures within 500 m walking distance from a park), whereas arithmetic overlay uses a combination of different input layers to receive a result (e.g. a layer including recreation grounds can be combined with a population grid to receive the area of recreation grounds per capita for the whole study area or for selected parts of it). The key indicators can be derived with the help of a Weighted Overlay analysis of the relevant composite/basic indicators by using specific weighting factors. This means that indicators considered especially important can have a higher weight within this analysis than indicators playing a minor role. The overall result consists of maps representing all relevant green spaces along with their recreational value ranging from high to low and areas with good and poor supply of recreation grounds with a high quality. If additionally an advanced web-based application will be used, the user can e.g. define his own weighted overlay properties in order to receive a result adapted to his needs.

To supplement the pilot activities, some stakeholder meetings involving members of the government of the federal state and/or the city of Salzburg will be held. This provides the opportunity to get in contact with relevant target groups that can profit from the outcomes of the UGB project and discuss upcoming issues with them. The contacts necessary to set up such a meeting do already exist. Furthermore, the University of Salzburg will be involved as well. As mentioned above, the university currently is conducting a project aiming at the derivation of quantitative and qualitative information regarding selected urban parks in the city of Salzburg. It combines remote sensing approaches and surveys of green space users (further information about this project can be found here). This provides the opportunity for scientific exchange or maybe even collaboration in some parts.

Individual steps

Activity	Date	Responsibility	Involved people	Place	Costs	Purpose
1. Data acquisition and management (pre-processing, storage, database design)	31.10.2017 (1 month)	iSPACE	University, Public bodies	Salzburg		Basis for indicator definition and analysis
2. Discussions with stakeholders/partners (university) → demand, additional data	continuous support	iSPACE	University, public bodies	Several institutions in Salzburg		Update of indicator set

3. Final choice of indicators → key aspects to be analysed (table: local specifications)	30.11.2017 (2 weeks)	iSPACE	University	Salzburg		Activity planning/Basis for analysis
4. Indicator calculation (spatial analyses, data modelling routines) → GIS Models and Layers as output	28.02.2018 (3 months, "open end")	iSPACE	Zadar, Padova	Salzburg		Analysis
5. Integrative Analysis, Key indicator derivation	31.03.2018 (2 months)	iSPACE	Zadar, Padova	Salzburg, Study visits		Analysis
6. Mapping of results, Implementation, Application design	30.04.2018 (2 months)	iSPACE (in cooperation with TWG)	Stakeholders	Salzburg, Study visits		Communication of results
7. Identification and utilization of transferable approaches → learn from each other	continuously	TWG1 (moderated by iSPACE)		Study visits		Integration of methods and results
8. Evaluation procedures	30.04.2018 (2 weeks)	TWG1	Stakeholders	Study visits, Pilot regions		Assessment of pilot activities
9. Adaptation/Update/ Finalization of GIS Model → Lessons Learned, Info-Boxes	continuously (deadline: 31.05.2018)	TWG1		Pilot regions		Communication of final model

Outcomes and interdependencies between individual steps

Most of the individual steps listed in the table above follow a logical sequence. Only Step 2 (discussions with stakeholders and partners) and Step 8 (adaptation/update of GIS model) are continuous processes that need to be carried out during the whole pilot activity phase.

The first step is data acquisition and management including pre-processing, storage, and database design. This step is important for the final choice of indicators (Step 3) because the indicator set of course depends on the available data, but also on the results of the discussions with stakeholders and other partners/relevant target groups, which refers to the University of Salzburg and public bodies (e.g. departments of municipal or state government). The final indicator set will be displayed within an Excel table along with metadata, derivation procedure, etc. As soon as this table is finalized, the indicators can be calculated with the help of ArcGIS including spatial analyses and data modelling (Step 4). Afterwards, the key indicators will be derived by integrating the calculated composite and basic indicators (Step 5). Step 4 and 5 will be carried out in consultation with the other members of TWG 1 since they might profit from some of the results and vice versa. The outcomes of these analyses will be mapped and visualized with the

option of developing a Web-based application (Step 6). To identify the success and the value of the activities, an evaluation phase is crucial, in which the outcomes will be assessed with the help of some kind of evaluation indicators (Step 7). The final result will be an updated version of the draft model, which has to be delivered until the end of May 2018 (Step 8). The last three steps are not only the responsibility of iSPACE, but do also include a cooperation with the other TWG 1 members as a common application to represent the results might be developed and a general evaluation routine has to be set up. Furthermore, the update of the whole GIS model needs to be a collaborative task in order include the findings of all three pilot activities.

Annex

CATEGORY		DESCRIPTION *(may be adapted)*			Outcome/ Importance for pilot region/ FUA *(to be completed during pilot activities)*	METADATA		CALCULATION ROUTINE *(if required)*		Implementation/ Visualization (Data Layer, GIS model, Web-Viewer, Script etc.)	Stakeholder/target groups involved *(link to other TWGs)*
Topic	Type	Name of the indicator [analytic elements; unit]	Reference parameter	Spatial dimension		Source/ Processing	Transferability options	Operation	Derivation procedure		
	Basic	**Existence of water bodies within parks [y/n]**	none	Object level	Indicates high landscape attractiveness and/or ecologic worthiness and thus serves as input for key analysis	SAGIS, OpenStreetMap	transnational	not required	not required	GIS Data Layer	
	Basic	**Height difference (relief) within recreation areas and agricultural/forestry spaces [m]**	none	Object level	Indicates high landscape attractiveness and/or economic potential and thus serves as input for key analysis	SAGIS, Corine Land Cover, Urban Atlas	transnational	Arithmetic operation	Maximal height above sea level [m] - minimal height above sea level [m]	GIS Data Layer	
	Basic	**Protection status of a single green space [y/n]**	none	Object level	Indicates high landscape attractiveness and/or ecologic worthiness and thus serves as input for key analysis	SAGIS	FUA level	not required	not required	GIS Data Layer	
Maintenance	Composite	**Density of public trees per grid cell [n/ha]**	extent of grid cell (500 m)	Grid cell (max. 1km)	Green network, shading effects	SAGIS Tree cadastre	FUA level	Spatial join	Number of trees [n] / Area of 500m-grid cell [ha]	GIS Grid Data Layer	Municipal authority
Maintenance	Composite	**Share of all public green areas per grid cell [%]**	extent of grid cell (500 m)	Grid cell (max. 1km)	Adapted form of green index	SAGIS, Urban Atlas	transnational	Arithmetic operation	Area of all types of public green [ha] / Area of 500m-grid cell [ha] * 100	GIS Grid Data Layer	Municipal authority, Planning departments/firms
Sustainability	Composite	**Canopy cover [%]**	extent of pilot site	Pilot site	Green network	SAGIS Orthophotos & Image analysis (NDVI)	local level	Arithmetic operation	Vegetated area [m²] / Total area of pilot site [m²] * 100	GIS Data Layer	Education/Research
Sustainability	Composite	**Green space per capita [m²/person]**	population	Grid cell (max. 1km)	Fair supply for inhabitancy	SAGIS, Urban Atlas, Statistik Austria	FUA level	Arithmetic operation	Area of green spaces [m²] / Inhabitancy per 500m-grid cell	GIS Grid Data Layer	Political strategies/guidelines, Capacity building, Community, Education/Research
Sustainability	Composite	**Number of species of all plant classes per area within single recreation areas [n/ha]**	extent of recreation area	Object level	Biodiversity assessment	Own data collection, Cooperation with University	local level	Arithmetic operation & Spatial Join	Number of species [n] / Area of single recreation ground [ha]	GIS Data Layer	Political strategies/guidelines, Nature conservation, Education/Research
Sustainability	Composite	**Share of all green areas per grid cell [%]**	extent of grid cell (500 m)	Grid cell (max. 1km)	Classic green index	SAGIS, Urban Atlas	transnational	Arithmetic operation	Area of all types of green [ha] / Area of 500m-grid cell [ha] * 100	GIS Grid Data Layer	Municipal authority, Planning departments/forms, Education/Research
Attractiveness	Composite	**Average satisfaction of users with recreation grounds [classes]**	none	Object level	Satisfaction studies, peoples' expectations, lacks and needs	Own data collection, Questionnaires, Cooperation with Univ.	local level	not required	Analysis of questionnaires & classification of results	GIS Data Layer	Community, Education/Research, Planning departments/firms
Attractiveness	Composite	**Mean distance to the 3 closest public transport stops [m]**	none	Object level	Accessibility analyses	SAGIS, OpenStreetMap	transnational	Network analysis & Arithmetic Overlay	Distance from UGS centroid to 3 closest public transport stops [m] / 3	GIS Model & Result Layer	Community, Municipal authority, planning departments/firms
Attractiveness	Composite	**Number of benches in relation to size of single recreation areas [n/ha]**	extent of recreation area	Object level	Satisfaction studies	SAGIS, OpenStreetMap	local level	Arithmetic operation & Spatial Join	Number of benches [n] / Area of single recreation ground [ha]	GIS Data Layer	Commuinity, Municipal authority

Attractiveness	Composite	**Number of children in walking distance of playgrounds [n/playground]**	playground	Object level	Accessibility analyses, fair supply	SAGIS, GIP, Urban Atlas	FUA level	Network analysis & Arithmetic overlay	Number of persons from 1 to 15 y [n] / Service Area of playground [m²]	GIS Model & Result Layer	Community, Municipal authority, planning depertments/firms
Attractiveness	Composite	**Number of different categories of useful elements in relation to size in single recreation areas [n/ha]**	extent of recreation area	Object level	Satisfaction studies, expectations	SAGIS, OpenStreetMap	local level	Arithmetic operation & Spatial Join	Number of categories [n] / Area of single recreation ground [ha]	GIS Data Layer	Community, Municipal authority
Attractiveness	Composite	**Recreation ground per capita [m²/person]**	population	Grid cell (max. 1km)	Fair supply for inhabitancy	SAGIS, Urban Atlas, Statistik Austria	FUA level	Arithmetic operation	Area of recreation grounds [m²] / Inhabitancy per 500m-grid cell	GIS Grid Data Layer	Community, Education/Research, Municipal authority, Enterprises
Attractiveness	Composite	**Share of recreation areas per grid cell [%]**	extent of grid cell (500 m)	Grid cell (max. 1km)	Fair supply, adapted form of green index	SAGIS, Urban Atlas	transnational	Arithmetic operation	Area of recreation grounds [m²] / Area of 500m-grid cell [m²] * 100	GIS Grid Data Layer	Planning departments/firms, Political strategies/guidelines, Capacity building
Attractiveness	Composite	**Share of residents within walking distance (500m) / biking distance (2km) of recreation grounds [%]**	population	Pilot site	Accessibility analyses, fair supply	SAGIS, GIP, Urban Atlas	FUA level	Network analysis & Arithmetic Overlay	Number of persons living in Service Areas of recreation grounds [n] / total inhabitancy [n]	GIS Model & Result Layer	Planning departments/firms, Political strategies/guidelines
Profitability	Composite	**Share of agricultural and forestry areas with good soil conditions [%]**	extent of agricultural & forestry areas	All municipalities in FUA	Agricultural potential	SAGIS, Urban Atlas	local level	Arithmetic operation & Spatial Join	Agricultural & Forestry areas with good soil conditions [m²] / Agri-cultural & Forestry areas [m²] * 100	GIS Model & Result Layer	Political strategies/guidelines
Profitability	Composite	**Share of residential area within walking distance (1km) from recreation grounds [%]**	extent of (all zones in) service area	Object level	Fair supply	SAGIS, GIP, Urban Atlas, OpenStreetMap	transnational	Network analysis & Arithmetic overlay	Residential area [m²] / (Zoning types in) Service Area [m²] * 100	GIS Model & Result Layer	Planning departments/firms, Political strategies/guidelines, Capacity building
Maintenance	Key	**Effort for Maintenance**	none	FUA	Integrative analysis based on weighted overlay of specific indicators			Weighted overlay	Weighted overlay of relevant indicators with specific weighting factors (will be defined during pilot activities)	GIS Model & Result Layer	Municipal authority
Attractiveness	Key	**Recreational value**	none	FUA	Integrative analysis based on weighted overlay of specific indicators			Weighted overlay	Weighted overlay of relevant indicators with specific weighting factors (will be defined during pilot activities)	GIS Model & Result Layer	Community, Municipal authority
Profitability	Key	**Potential of touristic usage**	none	FUA	Integrative analysis based on weighted overlay of specific indicators			Weighted overlay	Weighted overlay of relevant indicators with specific weighting factors (will be defined during pilot activities)	GIS Model & Result Layer	Municipal authority
Fair supply	Key	**Fulfillment of demand of various UGS functions**	none	FUA	Integrative analysis based on weighted overlay of specific indicators			Weighted overlay	Weighted overlay of relevant indicators with specific weighting factors (will be defined during pilot activities)	GIS Model & Result Layer	Municipal authority, Planning departments/firms, Political strategies/guidelines, Capacity building