TP Lab
Territorial Planning Laboratory

Interreg
Slovakia-Hungary
European Regional Development Fund

TERRITORIAL PLANNING LABORATORY – DATA NEEDS ASSESMENT

- Summary Report –

31st May 2021.

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The project is implemented within the framework of the INTERREG V-A Hungary-Slovakia Programme, with the support of the European Regional Development Fund, co-financed by the European Union and Slovak Republic.

Content

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Introduction

Within the framework of the TP LAB project a data and information service platform will be established for the area of the, Bratislava, Trnava and Győr-Moson-Sopron Regions (especially focused on the area of Žitný a Malý žitný island) in cooperation with the Institute of Spatial Planning (IPP), the Slovak University of Technology in Bratislava (STU), West-Pannon Nonprofit Ltd. and the Lechner Knowledge Centre in Hungary with the support of the Slovakia-Hungary Interreg V-A Programme.

The objective is the coordination of spatial planning and harmonization of decision-making between regions closely related to each other but being divided by the border, and to improve communication and the availability of information online.

In the first phase of the implementation of the project being completed in the framework of the Slovak-Hungarian Cross-Border Cooperation Programme, the project partners have realised a questionnaire survey (April 2021) aimed at potential stakeholders and users of TP LAB services. On the Slovak side 19 organisations responded to the questions related to the web service (spatial data, tools), and training, as well as usage needs. This paper contains the results and evaluation of the survey. The partnership of the project, as well as the wide local involvement, and the existence of close and living relationships with local and regional institutions and authorities served as a basic starting point, resp. in this context during the sending of the questionnaire and the assessment of the potential stakeholder group.

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I. Respondent organisations

List and types of the respondent organisations

Responses of 19 organisations from Slovak part of the area of interest were received of the TP LAB's needs assessment questionnaire on spatial data, web services and capacity building. Most of the respondents are universities, municipalities and private sector representatives as well. Feedback was also received from regional authorities, NGOs and national authorities.

1. Figure: List of the respondent organisations

	Respondent organisation
1.	STU
2.	Bratislava Region Tourism
3.	Szčo
4.	Ministerstvo dopravy a výstavby Slovenskej republiky
5.	WWF Slovensko
6.	Slovenský vodohospodársky podnik
7.	Nitriansky samosprávny kraj
8.	SPECTRA CE, STU v Bratislave
9.	Metropolitný inštitút Bratislavy
10.	Metropolitný inštitút Bratislavy - Sekcia územného plánovania
11.	Ekonomická univerzita v Bratislave
12.	Trnavský samosprávny kraj

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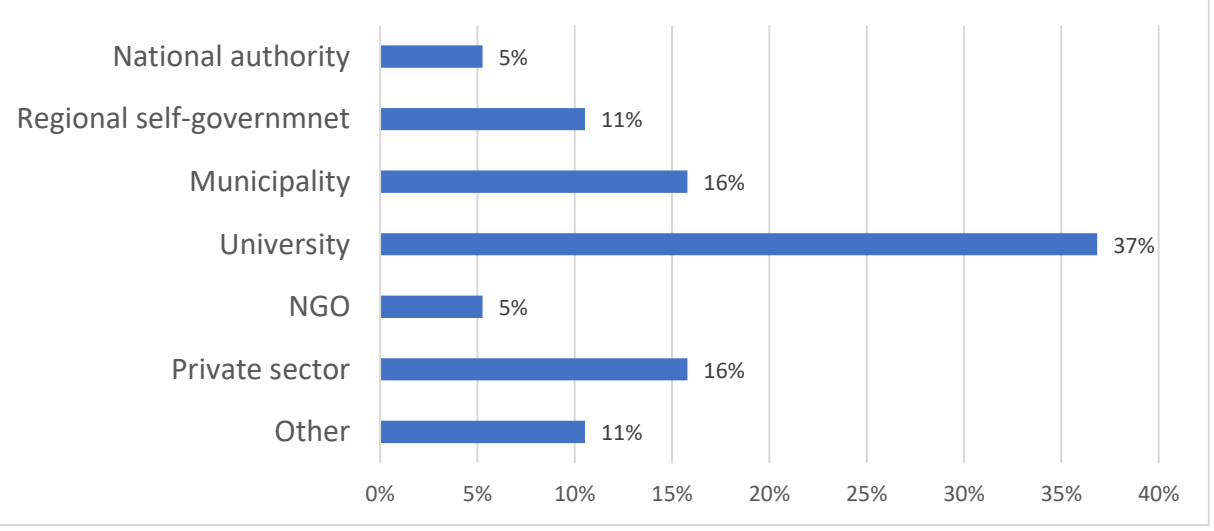
13.	Slovenská technická univerzita, Ústav manažmentu, Odd. priestorového plánovania
14.	Metropolitný inštitút Bratislavy
15.	Slovenská technická univerzita v Bratislave
16.	Spectra CE
17.	STU
18.	Spatials s.r.o.
19.	ISAX, s.r.o.

Division of types of responding organisations is shown on the scheme below.

2. Figure: Types of the respondent organisations



Basic activities of the respondent organisations

The main activities of the responding organisation are spatial planning, regional development, GIS and spatial data development, but tourism, water management and public transport as well:

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3. Figure: Basic activities of the respondent organisations – word by word responses

education, regional development, spatial planning
tourism, destination management organization
spatial planning
public passenger transport
Nature protection, protection of migration corridors, protection of forests and aquatic ecosystems and others.
Water management
regional development
Research and training center in the field of spatial planning
spatial planning and GIS creation
spatial planning and urbanism
Regional and urban economics
spatial planning and the environment
spatial planning
conceptual institute in the field of architecture, spatial planning, participation and strategic planning
Spatial planning
spatial planning, consulting
scientific-research activity, pedagogical activity
Spatial planning
Development and analysis of spatial information

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II. Territorial context of the respondent organisations' activities

Respondent organisations development objectives

The question focused on the development objectives of the organisations. The most common development objectives were spatial planning, regional and settlement development, tourism development, infrastructure development, environmental protection, smart approaches and sustainable development.

4. Figure: Respondent organisations development objectives – word by word responses

innovative solutions in regional development and spatial planning
support for the development of tourism in the Bratislava Region
expansion of the offer in public passenger transport construction and modernization of transport infrastructure preparation and approval of the law on public passenger transport
Translating migration corridors into spatial plans and ensuring their protection
Protection of groundwater for their preferential use as a source of drinking water in accordance with Act 364/2004 Coll. on waters Protection of surface and groundwater in order to improve / maintain the status of surface and groundwater; Sustainable use of water resources
Innovative, sustainable and competitive economy including tourism, Sustainable regional agri-food complex and especially processing and distribution chain, Environment, ecosystem services and green infrastructure, Smart energy, transport and technical infrastructure, Development of sustainable communities and their quality of life (including social infrastructure)
Application of know-how in practice

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creation of a new spatial plan of the city and databases for the creation of spatial planning tools
creation of a zoning plan of the capital of the Slovak Republic, Bratislava, creation of databases and GIS
spatial planning and documentation, urbanism, demographic change, sustainable development, brownfields
development of the city and its public spaces
Implementation of Smart City strategy
spatially sustainable development
education
Creation of GIS and SDSS

Cross-border social and economic and environmental tendencies (changes) relevant of the respondent organisations

The question concerned the typical socio-economic-environmental trends on the cross-border level the organisations are faced by. The topics were pre-defined, but respondents also had an opportunity to indicate additional aspects. The questions are of fundamental importance in connection with the design of the territorial "services" targeted in the project, i.e. determines the (spatial) cross-border environmental trends that emerge at the local level, and for which data requirements may arise accordingly.

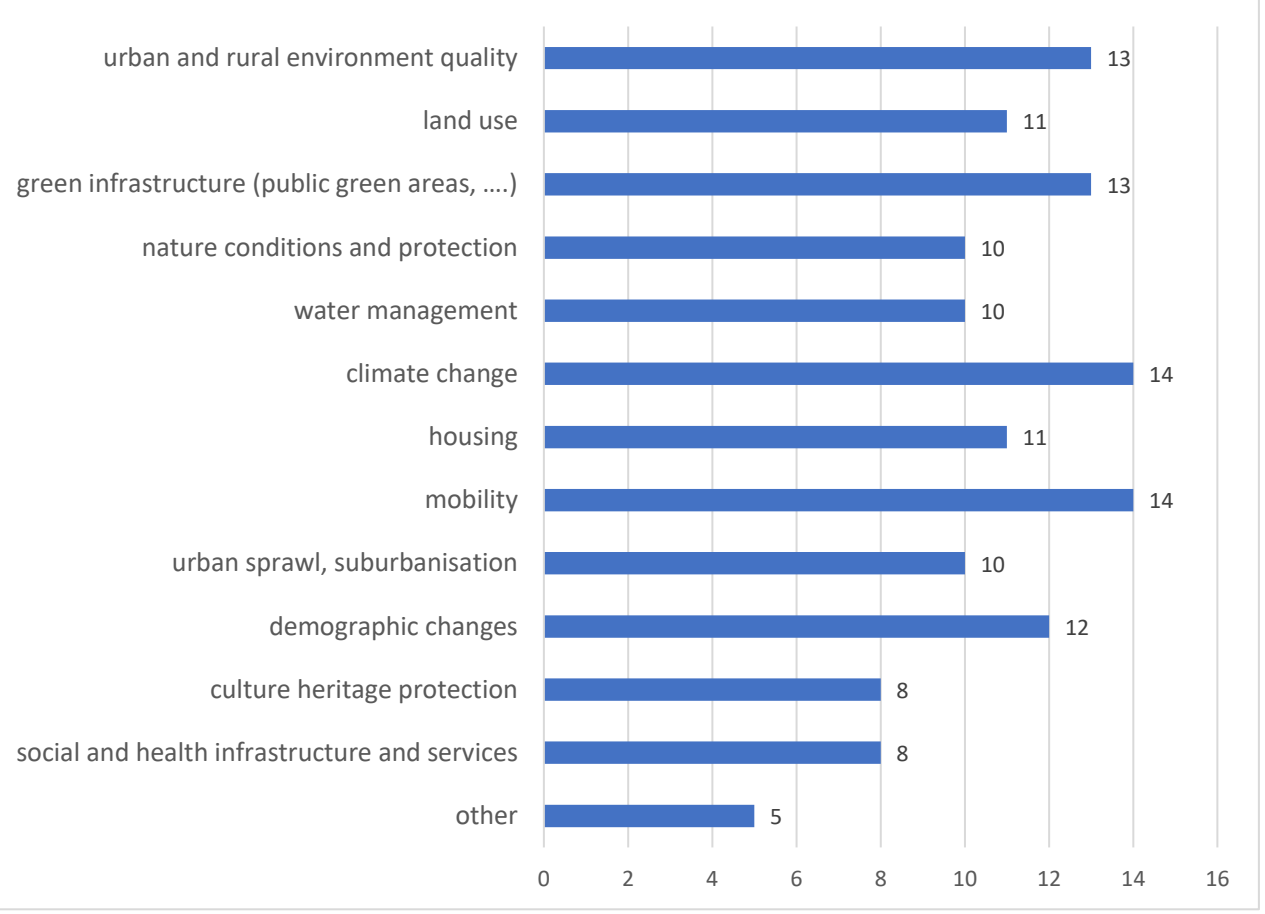
The most important topics are climate change and mobility. The issues of the *urban and rural environment, green infrastructure* and demographic changes are considered as important as well. In addition to the above, respondents indicated other important aspects, such as:

- Sustainable development

- Public spaces

- Transport

5. Figure: Topic areas important for the respondents



Possible threats and challenges in the area

Climate change, decreasing of valuable non-built areas and urban sprawl and intensive agglomeration processes received the highest scores of the predetermined potential threats. The water management problems were evaluated high. The less problematic were assessed issues of

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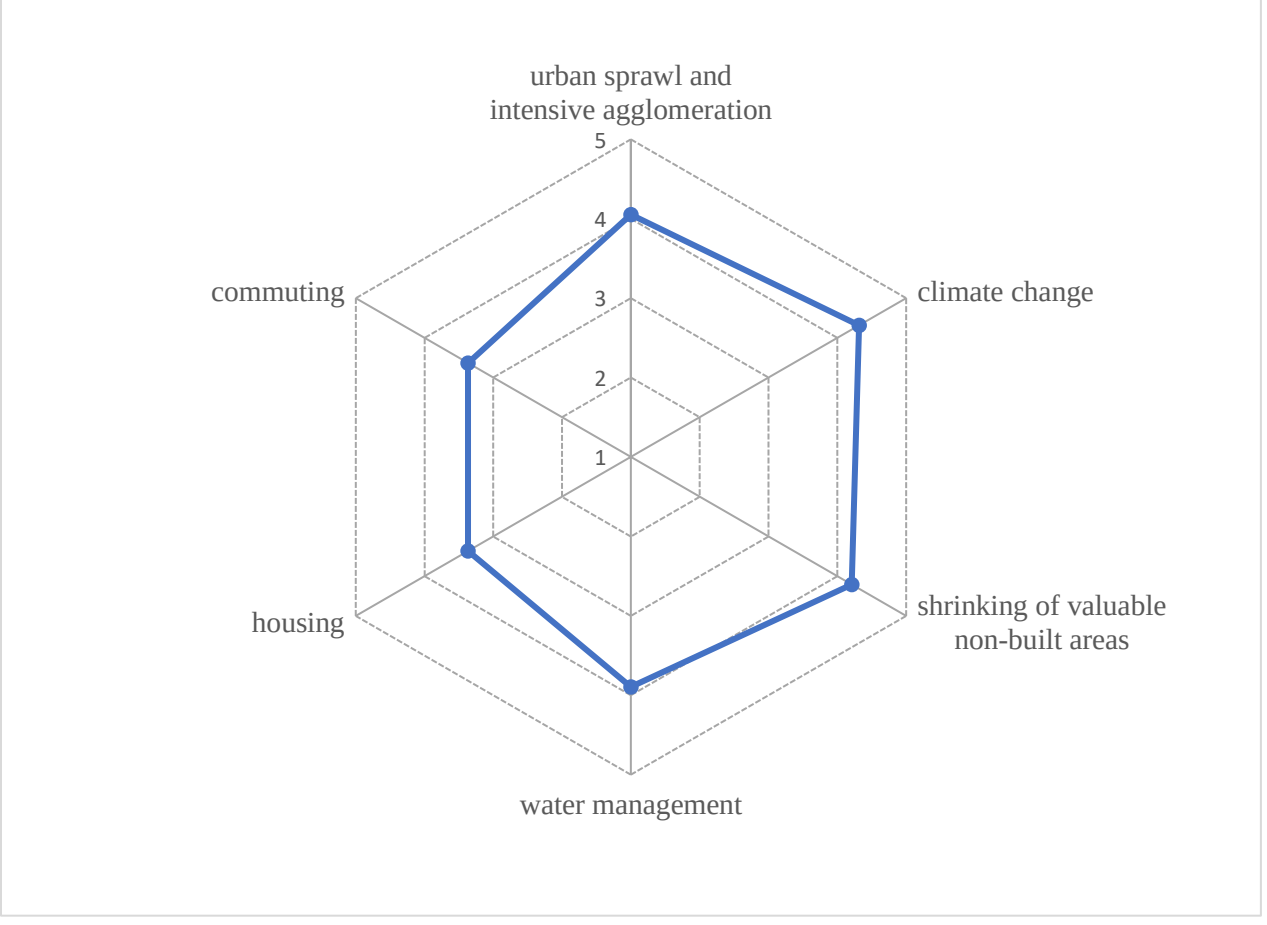
housing and commuting. However, respondents also identified other problems and threats in the area, such as:

- Inappropriate land management,
- Social services,
- Quality of life.

6. Figure: Importance of threats and challenges



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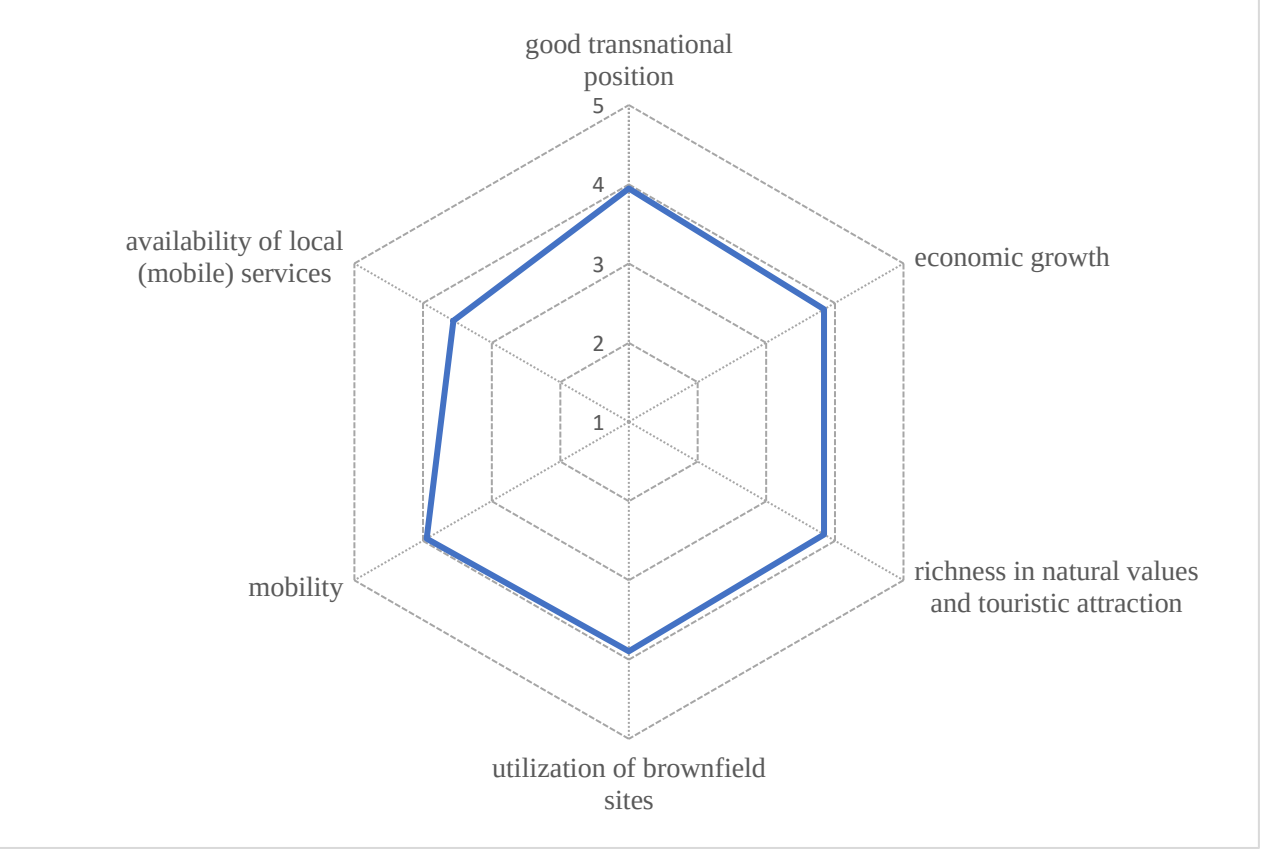
Opportunities in the area

Also in this case, predefined topics were given to be chosen from. The scores for the given topics were relatively balanced. The highest score received the issues of good geographical location and mobility. No other topics were given by the respondents.

7. Figure: Evaluation of the opportunities



Partner organisations

Respondents were asked to specify the partner organisations they cooperate with. The word-by-word responses are listed in the table below.

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8. Figure: Partner organisations defined by the respondents

Ministry of Investments, Regional Development and Informatization of the Slovak Republic, Ministry of Interior of the Slovak Republic, Ministry of Transport and Construction of the Slovak Republic, Nitra, Trnava and Bratislava Self-governing regions, UK in Bratislava, IPP, CPTS, Center for Urban Security, SAS,
regional tourism organizations, regional and local governments, service providers in tourism, cultural institutions
relevant self-governing region, relevant ministries of the neighboring countries, ZMOS, K8 Association
WWF in other countries, ŠOP SR
socio - economic partners
public and private sector
Universities (STU, UK), SAS, BSK, MDVSR, MŽPSR, Eurocities
higher education - STU, UK, EU; SAV; BSK; MČ; Eurocities
Researchers and universities located mainly abroad (CZE, ITA, ENG, ..), researchers from TUKE / Analytical units at individual ministries of the Slovak Republic.
Min. SR, OÚ, ŠOP, SVP, VHV, Pamiatkový úrad, Banský úrad, Dopravný úrad, NDS, SSC, SE, ÚGKK, ŠGÚ, ÚVZ
VSB TU Ostrava, SAS, CVUT Prague, PG Gdansk
Capital City Office, Metropolitan Institute, Institute of Urban Development, Universities, residents
WWF SK, SOP SR, Magistrat BA, TNSK, NRSK, MIRRI, MINDOP
TU Wien, CTU Prague, University of Belgrade, UUR Brno, IOER Dresden
transport and engineering network administrators

Reviewing the above - in many respects diffuse - data communication, the following conclusions can be drawn:

- The issue of partnership is an important aspect for the respondents.

- Existing partnerships are driven on the one hand by practical aspects (see e.g. the participating organisations of tenders) and on the other hand - fortunately - the need for international/cross-border connections can be identified as a significant factor.

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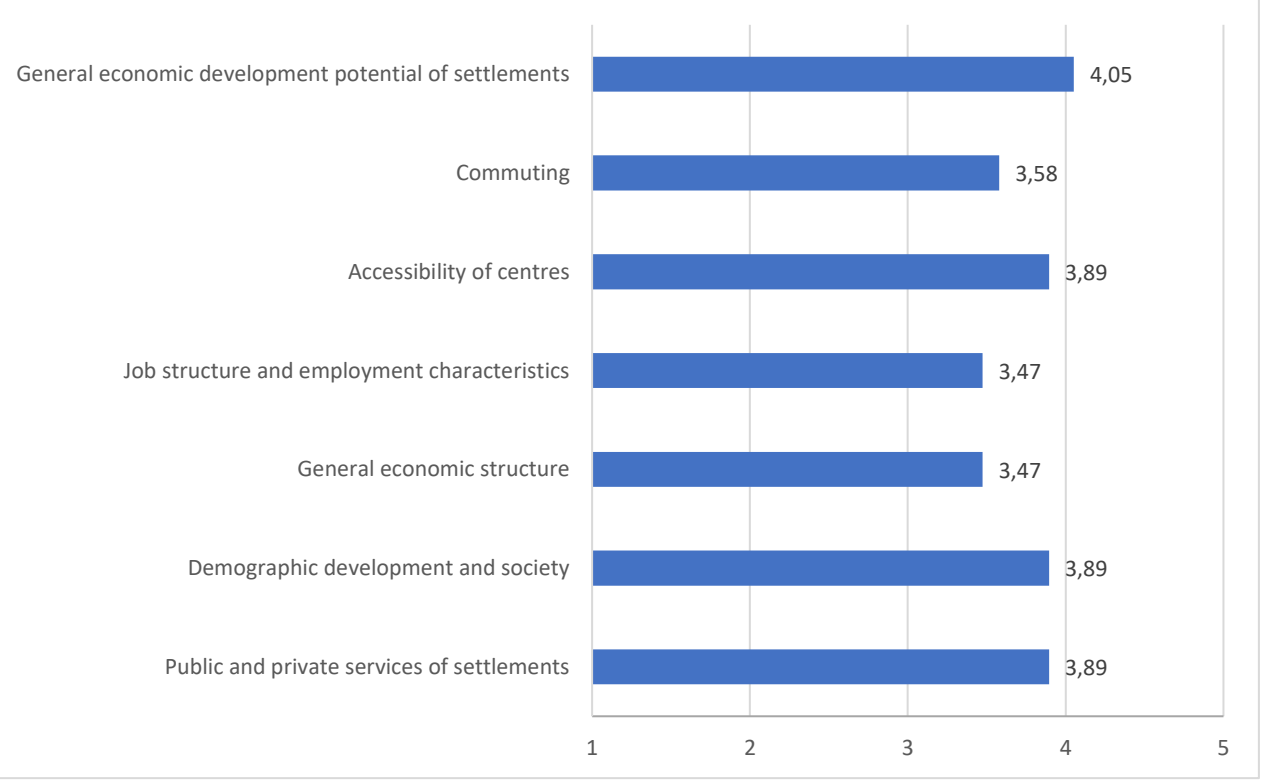
III. Data needs

(Territorial) data preferences of the respondent organisations regarding social and economic data

In the field of economy and society, the individual data sets (sub-themes) received a relatively balanced score. The responding organisations considered the role of basic data and indicators related to economic development potential to be particularly important of the seven aspects specified in advance. Indicators and input data related to accessibility of centres, public and private settlement services and demography also received high scores.

9. Figure: Evaluation of data concerning society and economy



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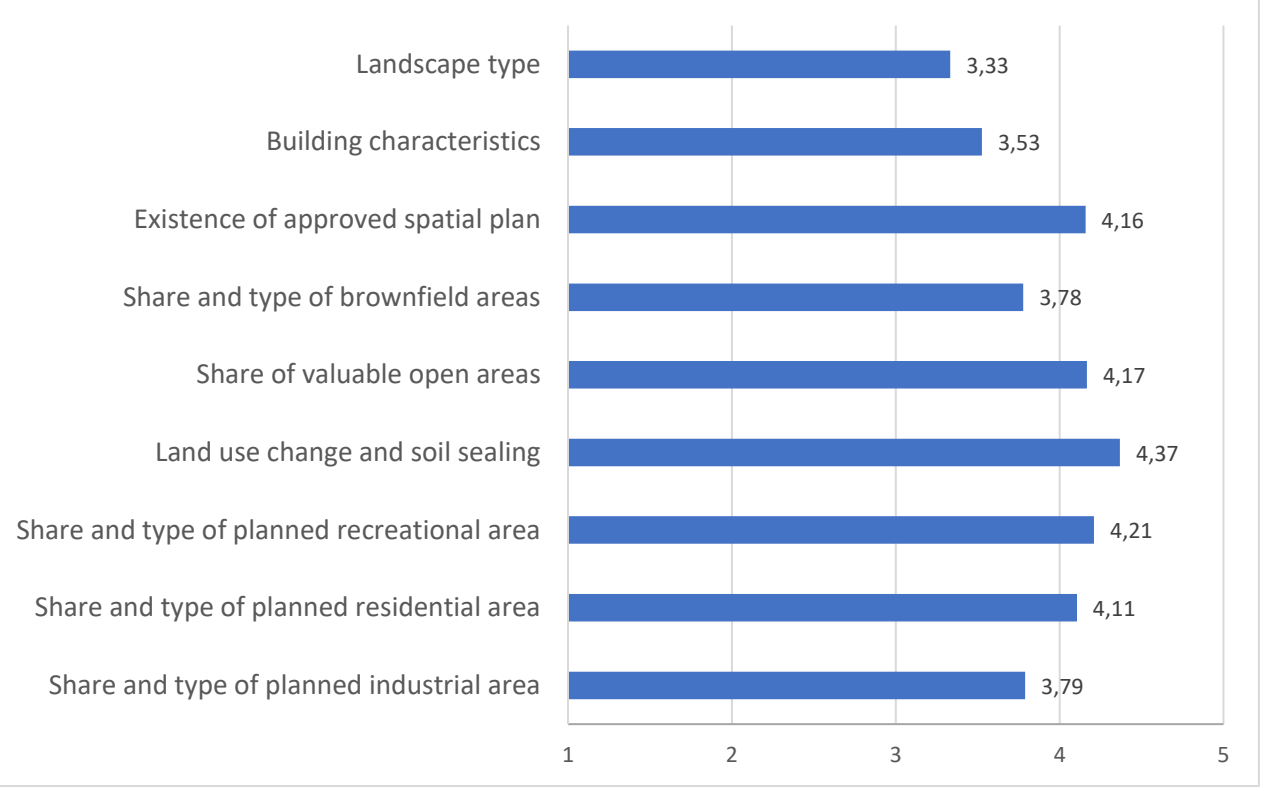
(Territorial) data preferences of the respondent organisations regarding the field of land usage

In the field of urban sprawl, land use change and planned urban areas characteristics respondents considered land use change and soil sealing (increase of built-up surfaces), recreational areas and share of valuable open areas of settlements (natural values, landscape, water basins, high productivity arable land, orchards vineyards etc) to be most significant of the nine pre-specified criteria. The proportion of landscape type were among the less important factors.

10. Figure: Evaluation of data related to land/territory usage



(Territorial) data preferences of the respondent organisations regarding natural environment and green infrastructure data

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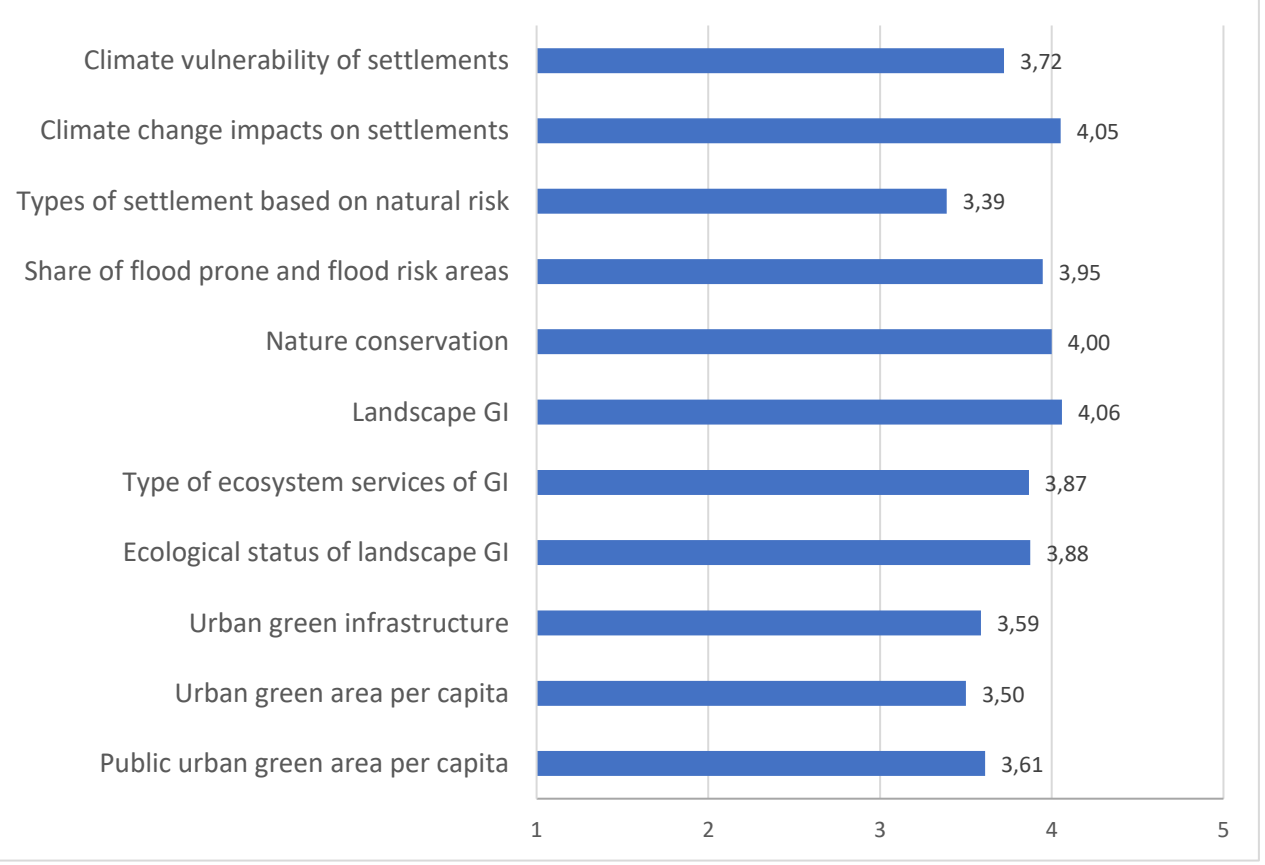
Respondents considered data and indicators related to landscape green infrastructure, impacts of climate change on settlements and nature conservation (Natura 2000, local protected areas etc.) to be most relevant of the eleven pre-specified criteria. Natural hazards received relatively lower scores.

As other important data relevant to the field was mentioned development in protected/biodiversity valuable areas.

11. Figure: Evaluation of data concerning natural environment



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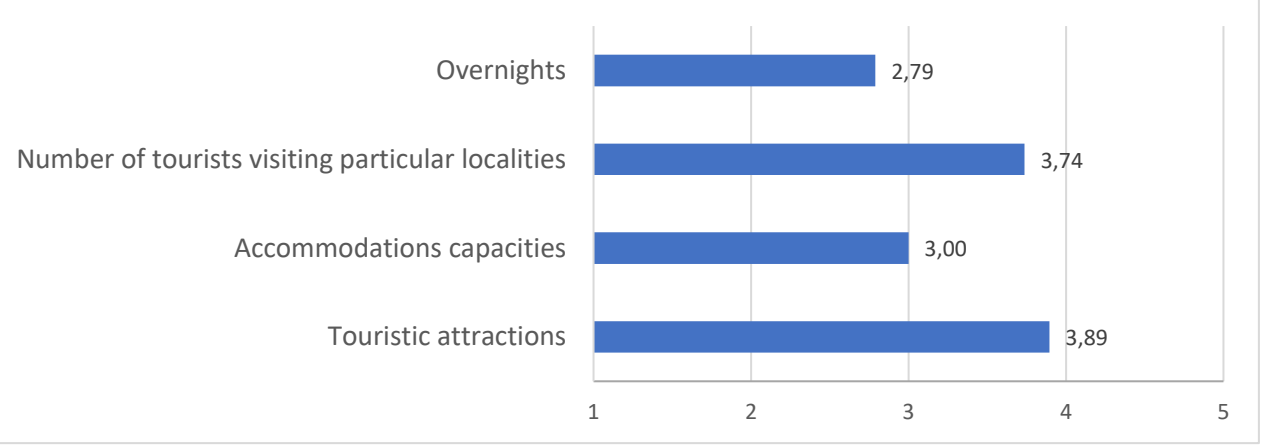
(Territorial) data preferences of the respondent organisations regarding tourism data

The scores for some sub-themes of tourism and leisure activities were generally rated at a lower score, which is probably due to the composition of the respondents who completed the questionnaire. Their professional and work orientation is not directly focused on tourism. The highest ratings were given to indicators related to touristic attractions and the number of visitors. These indicators are the key data on this sector and are relevant to regional development, as the area of tourism development has great potential. As other important data related to tourism is number of tourists transported by, respectively using public transport.

12. Figure: Evaluation of data related to tourism



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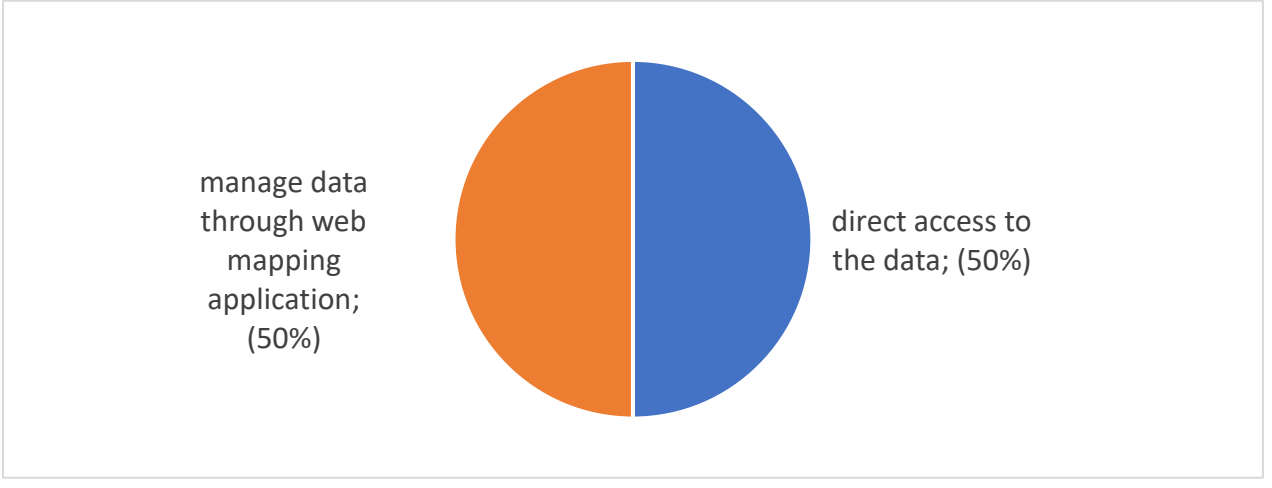
IV. GIS System usability

Direct access to the data and the availability of data processing

One half of the respondents want direct access (download) of spatial data, and the same share would prefer online web access.

13. Figure: The GIS access needs of the respondents



For web map analysis, more than 60% of the respondents would prefer tools adjusted and configured to their own needs and the rest prefer to use predefined functions. This shows, that respondents were mainly professionals who are able to work with technologies that enable personalized settings and for who it is not enough to have only available data, but want to do specialized analyses and outputs on the basis of data. It is important to take this feature into account during system development.

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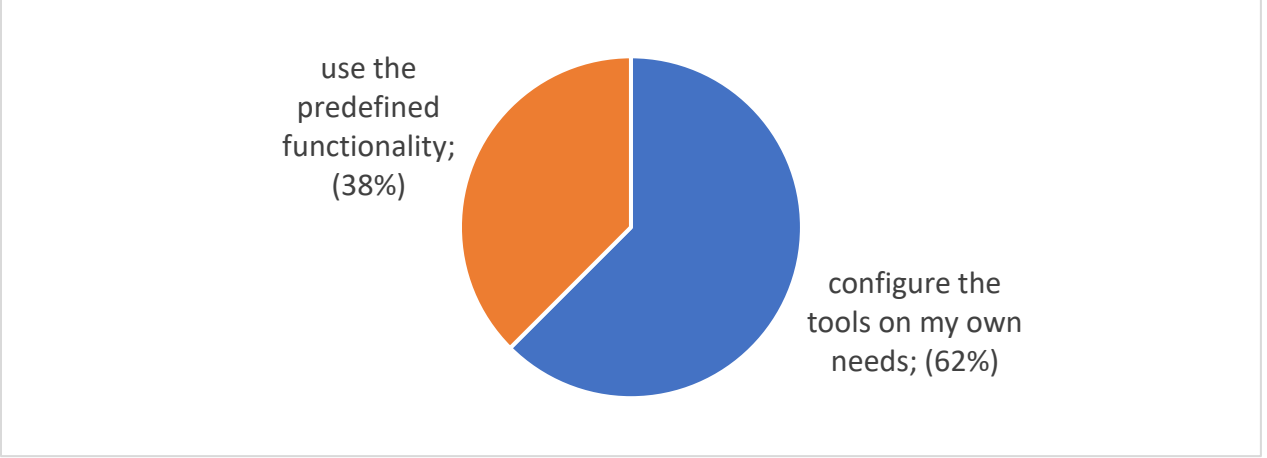
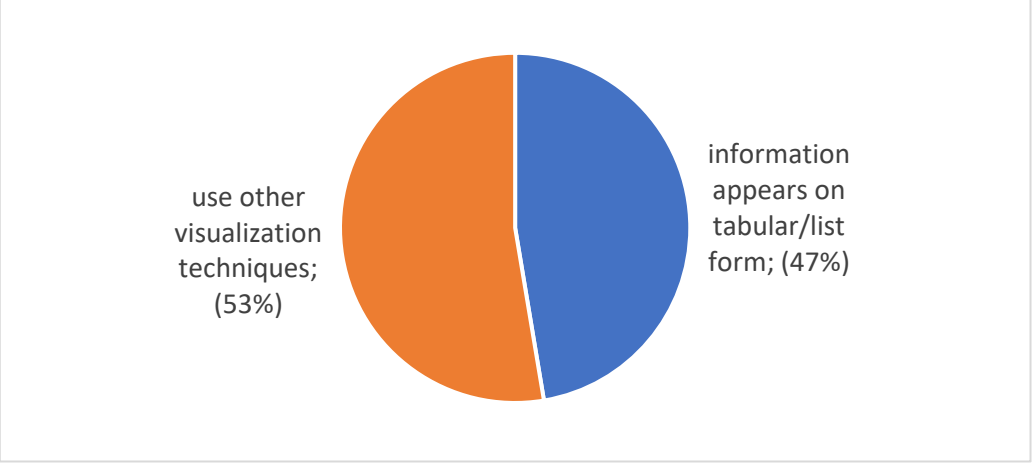
14. Figure: Web GIS evaluation needs of the organisations



Appearance opportunities

Respondents considered tabular and other visualization (e.g., diagrams) data display options in TP LAB services to be equally important. Those who indicated the other option also wrote that both tabular and other visualization representations should be available. This is also an important guideline for the system to be set up – i.e. accordingly, it should be open to both types of presentation.

15. Figure: The needs of the respondents concerning data appearance



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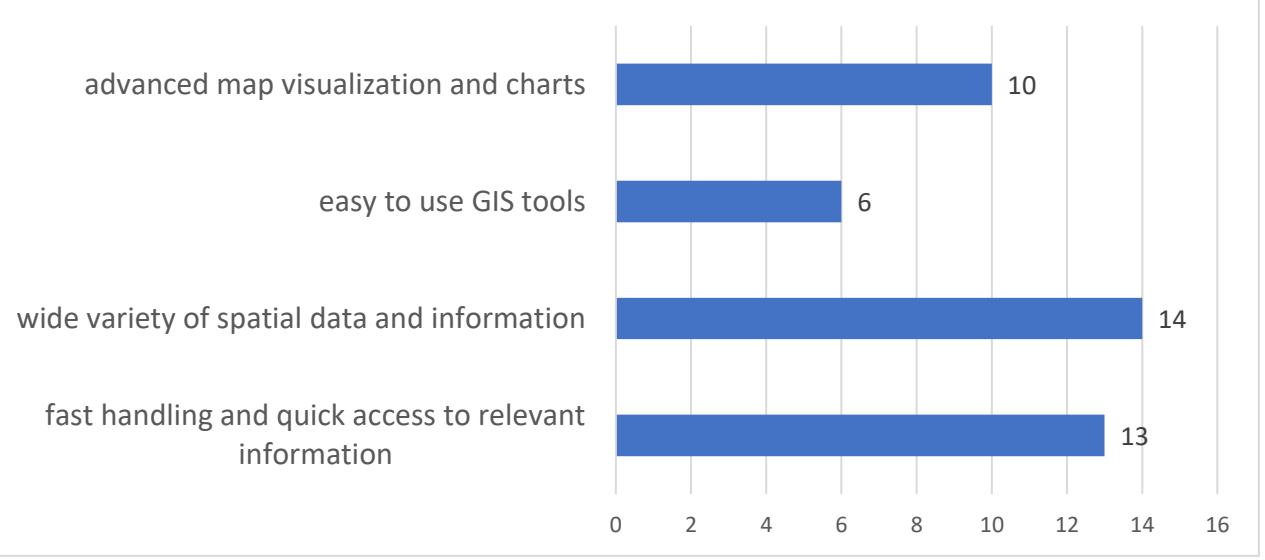
The importance of the web map service function

The most important expectations of the web map service are to have a wide variety of spatial data and information and fast handling and access to information. The advanced map visualization function lags behind. Easy to use GIS tools are the least important. This feature received only 6 marks. The answers to this question show, that the wide range of data and quick, easy access to information are the most important features for users.

16. Figure: The importance of map service functions



Assurance of metadata

The availability of metadata is considered desirable by the vast majority of the respondents (67%), given that they can extract other information useful to them from this data. This fact should be also taken into consideration during system development.

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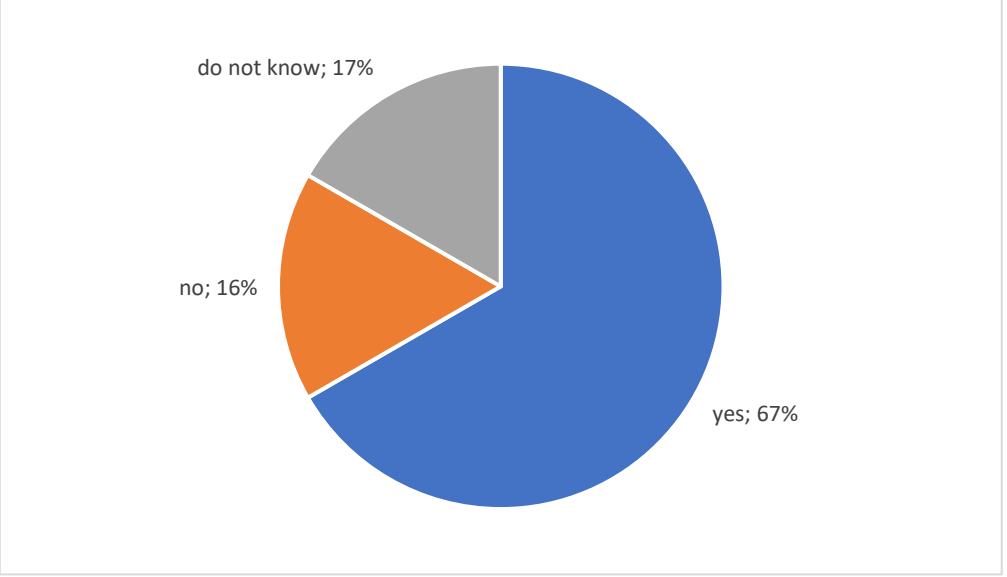
17. Figure Availability of metadata



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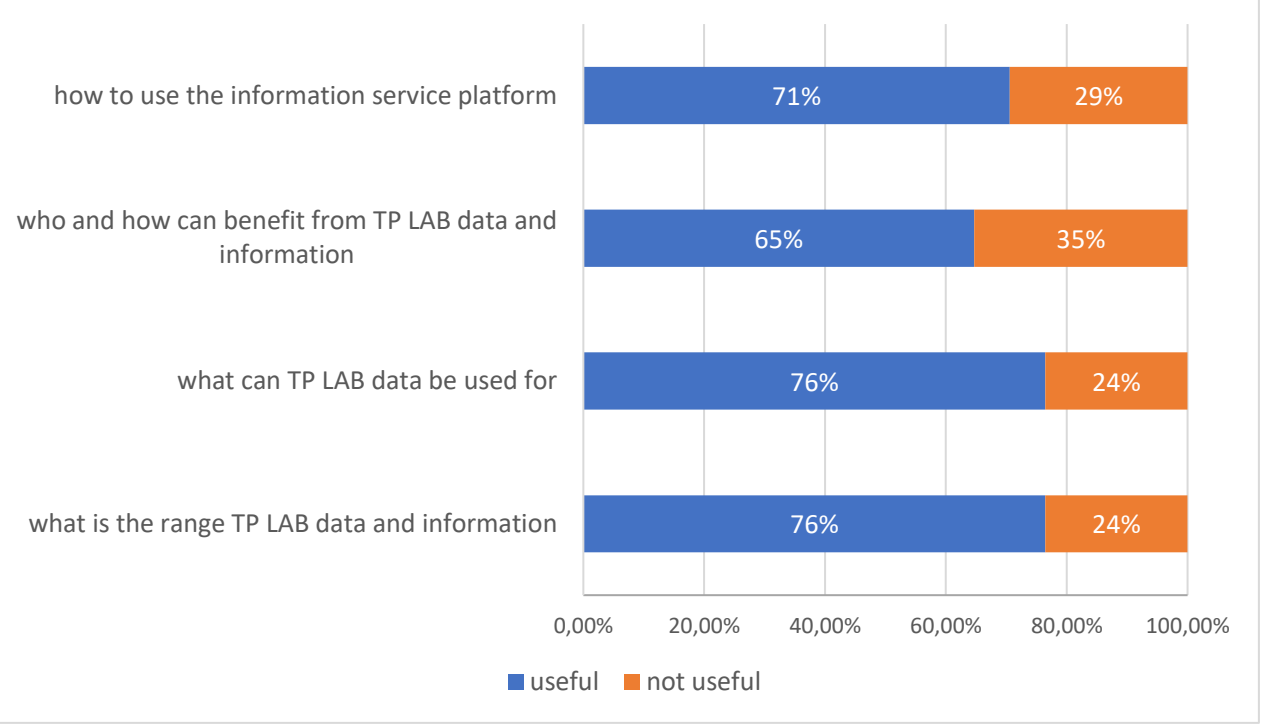
V. Capacity building needs of the respondent with the aim of the relevant use of the available new data

Usefulness of TP LAB knowledge

Four aspects of the questionnaire examined the usefulness of the new data and information. Respondents found each of these aspects useful. Although the opportunity to benefit from TP LAB data was given the lowest value, 65% of the organisations still considered this aspect important. The most important aspects are what can TP LAB data be used for and the range of available data and information.

18. Figure: Usefulness of TP LAB knowledge



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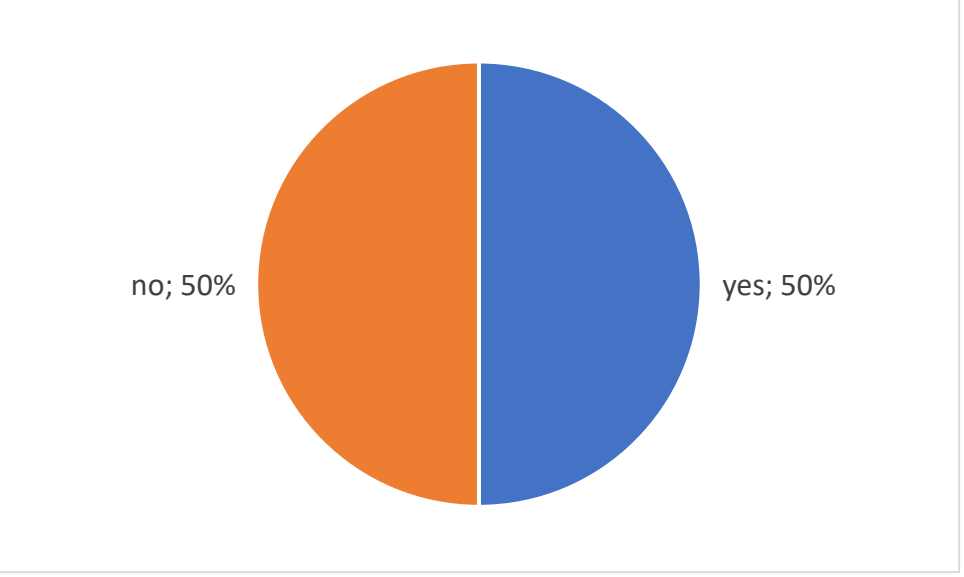
Participation in the creation and testing of TP LAB service content

Half of respondents would like to be involved in the development of the content of TP LAB web services and even more than 60% would like to be involved in service testing. Both values are outstandingly good. High willingness to test it is a good indication of the interest in setting up the system, the commitment for the content.

19. Figure: Willingness for participation in the creation of TP LAB services



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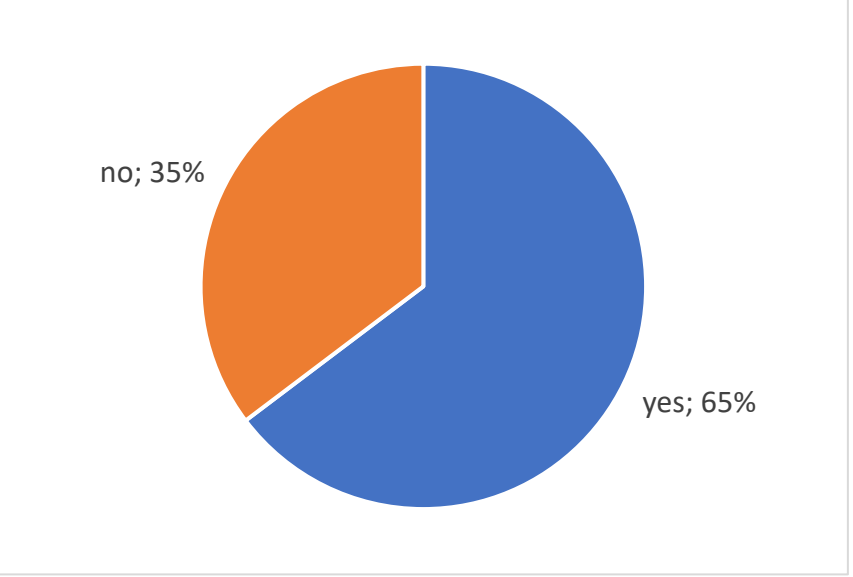
20. Figure: Participation in the testing of TP LAB service content



Usage of the services (venue)

The vast majority of respondents (94%) want to test TP LAB services at home or at work and not in the local Living Lab (the local service office). The situation is similar for ready-made services: all users plan to use the system at work or at home. Only 6% of respondents would visit the Living Lab. This is understandable if we look at the increased preference for online services during the COVID epidemic compared to the previous period, but as well as to expand the possibilities of working online thanks to modern technologies and tools. An increase in personal, local use is expected in case the available tools and conditions in the homes or workplaces are not sufficient for the use of the system. When planning the services of Living Lab, it is absolutely necessary to take this aspect into account - a kind of local support, provided to the users of the service here, which makes it worth using it away from home.

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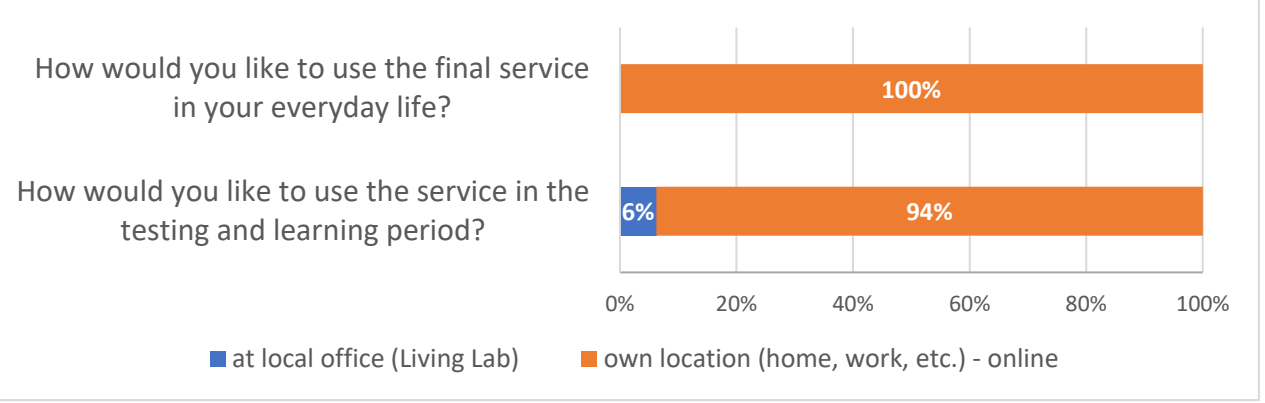
21. Figure: Venue of the usage of TP LAB services (during the operation of the service; during the development of the service)



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VI. Summary

As a conclusion of the above elaborated details – as well as the Slovakian stakeholder online meeting held on 31st March, the following summary conclusions can be made:

- ✓ The results of the questionnaire survey as well as additional user ideas discussed at the local partner meeting will provide the basis for the development of the project's web data and information service application.
- ✓ Meanwhile as well, there is a substantial need and interest on the part of potential users to use the system (see, for example, the exceptionally high willingness to test).
- ✓ Thematically, the data on the natural environment (e.g. green areas, corridors, protected areas, surface and groundwater, etc.), data of economic nature, including tourism, (e.g. attractions, capacities, guest nights), and fundamental "standard" basic data (demographics, single base map, etc.) should play a key role in the substantive and content side of the data structure to be developed.
- ✓ With regard to all these data - emphatically due to the cross-border nature of the project - the need for data harmonisation emerges as an important factor, which can even be restrictive - as the data that have got the same definition on both sides of the border are worth to / can be displayed in space as well. In this respect, strong coordination between partners on both sides of the project partnership is of key importance.
- ✓ The objective for digital services is to meet the necessary data and information in the most user-friendly way possible. System should be developed that way to be used by skilled professionals and by common users as well.

The system created based on the above elaborated details can be used in a cross-border way, and with a unified management of cross-border data, which will be able to meet the real, local information needs of the project area as well as support (specialist) sectoral planning and spatial development interventions, as well as making decisions on the use of space by individual actors.

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List of Figures

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