Inspire Policy Making with Territorial Evidence

Preliminary Market Consultation

(in preparation for the procurement of "ESPON portal - interactive mapping and dashboards")

Annex 1

Background information on ESPON online tools

1   Introduction

According to the ESPON 2020 Cooperation programme, Specific Objective 3 foresees creation of analytical tools that ensure observation and monitoring of territorial structures, development trends and dynamics in different European types of territories. The tools constitute and integrated online "ESPON toolbox", a consistent set of tools for territorial analyses (databases, analytical tools, tools for benchmarking, territorial impact assessment and mapping). Currently, ESPON website hosts 10 online tools*: BSR-TeMo, CityBench, DataNavigator, Database Portal, ETMS, FIT, HyperAtlas, Online MapFinder, RIMAP and TIA web application*. They are available through a dedicated webpage in the ESPON website and aim to support policy makers, practitioners and researchers with relevant territorial evidence (maps, data, short analysis, quick scans) in their various activities. For all tools guidance sheets have been elaborated to showcase the functionalities and application of the tools.

Figure 1. Conceptual schema of ESPON online tools within the information flow
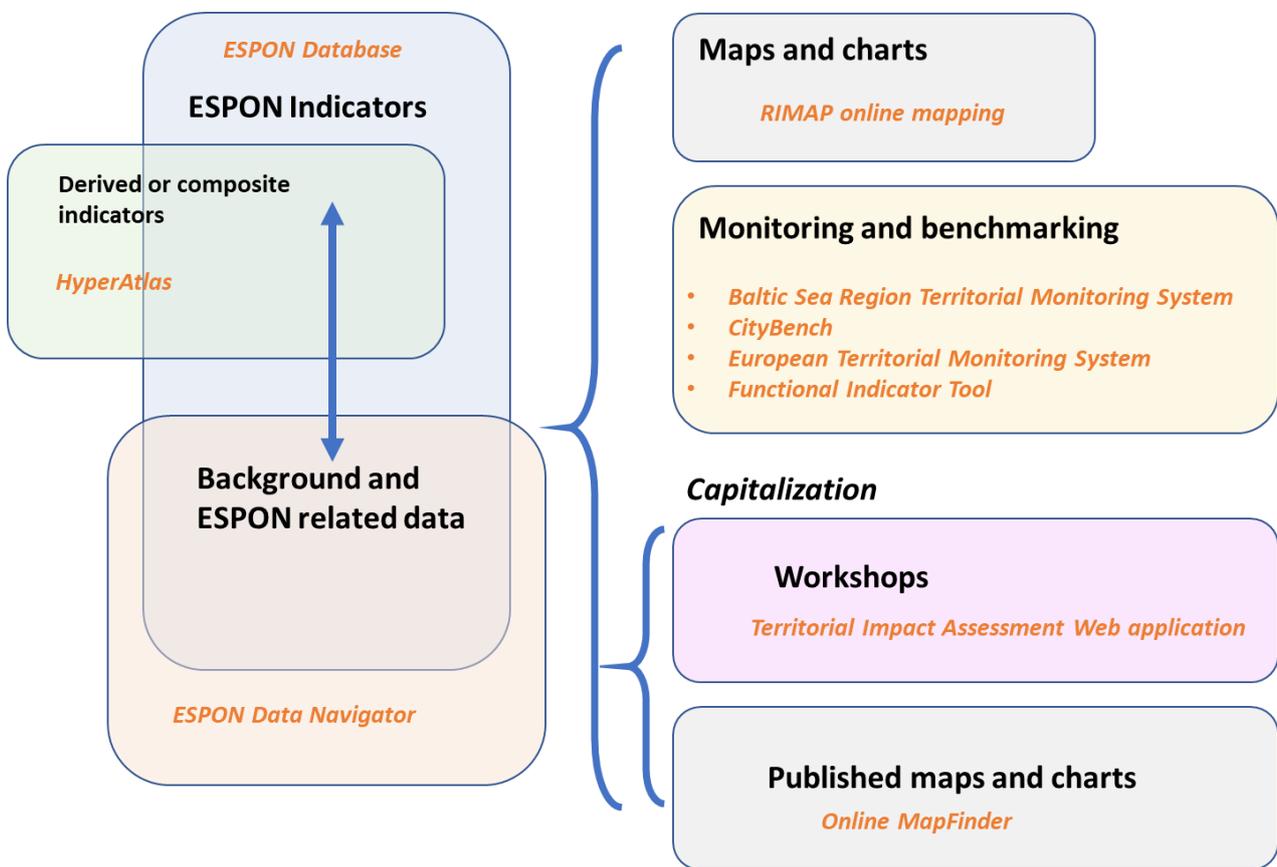
Source: ESPON EGTC

2   Challenges and ESPON EGTC's activities to overcome them

As many online tools are the inheritance of the ESPON 2013 programme, the current ESPON 2020 Cooperation Program foresees that these tools are updated and becoming more integrated with any new tools which are being developed during the ESPON 2020 programme. More specifically, "a review of existing tools shall result in a proposal on tools that will be maintained and/or developed or could be wounded up due to little use. Supporting this review of tools, a survey among ESPON users in all countries shall be carried through".

2.1 Challenge: ESPON online tools are outdated and lack integration (too many)

2.1.1 Outdated information/functionalities

The review of existing online tools developed within the ESPON 2013 programme has resulted in development of number of new online tools which:

- will effectively assimilate the old tools and provide updated information, functionalities and design. For instance, the *European and Macro-regional Territorial Monitoring Tool* will assimilate the *BSR-TeMo* and the *ETMS* tool.
- will provide a unique information and functionalities, responding to the demand of the Programm's member states

Due to lengthy public procurement procedures and complexity of the projects, only the *ESPON 2020 Database* and the *ESPON TIA Web tool* can be currently regarded as finalized (see more detailed information in the presentation material on the current status and the structure of the tools). Thus, most of the tools currently featuring in the ESPON website are de-facto outdated or not completely functional, some of the guidance materials are also outdated.

Although, a tremendous work has been done to update the online tools during the ESPON 2020 programme, still the fact that most of the tools are stand-alone tools, creates a basis for them to become outdated again in near future. The necessity for constant update cycles pose a huge challenge for the ESPON program as that would imply launching new projects again and again for updating the existing tools or creating new ones.

2.1.2 Lack of integration (too many online tools)

There is generally a lack of integration among tools – the ESPON website formally provides the single access point to all tools, but each tool has its own logic, technological platform and idea about the user experience. Thus, inevitably it is hard to navigate among the tools and, moreover, the integration of data flow among the tools is very weak, each tool is more like self-contained system.

The challenge here is to develop a conceptually different model which does not depend on creation of separate tools. In 2014 an independent review[1] by a contracted service provider was done to seek for solutions regarding the potential integration. The main conclusion was that with a few exceptions the online tools cannot be integrated into each other, because of technical challenges (different software's used) and because the purpose of each of tool differs. More feasible strategy would be to group them. A proposal on the prototype was developed (http://www.ersilia.org/espontools/) and to a large extent this suggestion was taken up and implemented in the redesign of the current ESPON website.

2.2 Challenge: ESPON online tools are not providing a satisfactory user experience

To understand the user experience with ESPON tools, different surveys were organized during the implementation of the ESPON 2020 programme, for instance, one being a survey to prepare the mid-terms evaluation of the ESPON 2020 programme, where survey questions also concerned the use of ESPON tools. However, the most prominent survey was carried out in 2017 and it was entirely dedicated to ESPON tools.

Data showed very clearly that the most familiar tools are *Online MapFinder*, *Database Portal* and the *TIA tool*, the rest being used only occasionally; 32% of respondents indicated that they are not familiar with any of the ESPON tools, although at the same time 50% of the respondents know other online tools, like those of Eurostat, OECD, etc.

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[1] ESPON study "Feasibility Study on ESPON on the web" (2014). Final Report available on demand, not publicly accessible

The survey did not reveal much on how respondents have used the current ESPON tools practically and whether they have helped them in any way (most of the respondents skipped this part). Nevertheless, the respondents indicated that getting up to date information/data, making presentations and benchmarking territories would be the most common ways how to use online tools.

Some concrete examples were also given on the user experience:

- More help is needed on how to practically use the tools. Most of the respondents indicated that examples of using the tools and explaining the functionalities are needed, like FAQ pages.
- The respondents clearly indicated that for them online tools are needed to find maps and data, other things like, charts, analysis options are not regarded as so important.
- The tools are quite academic and sophisticated, not easy for use; regular update of the data would be crucial.
- Too often the tools are very general to be used in the daily work.
- More advertising is needed on what the tools really constitute, given that there is such a wealth of information therein.

3 Solutions – towards single ESPON portal

Looking ahead at the ESPON post-2020 programme, the intention of the EGTC is to offer a radically new approach to ESPON tools architecture. This is needed not only to overcome the challenges mentioned above, but also because other research and data-oriented institutions are constantly upgrading their visualization portfolio. For instance, in October 2020 Eurostat launched its "**Regions in Europe — statistics visualized**" tool[2] which offers a range of interactive visualisations accompanied by short texts that allow to get a deeper understanding of the situation across European regions. In addition, OECD launched its **"OECD Regions and Cities Data Visualisation**" tool[3] which is a web-platform that allows visualising maps and charts for a wide range of statistical indicators at the subnational scale.

In the landscape of constant online tool development and offer, it is essential to simplify things and engage users in a way that is unique and memorable. The EGTC would like to develop an architecture which is built on the following principles:

- Although there inevitably will be a need for specific functionalities, the overall architecture should be built around a single technological platform which provides a single access point. The idea is to avoid having separate self-contained tools where each function according to their own logic and access terms.
- Overall, it should be a platform which serves multiple purposes, most prominently, going beyond the standard expectation of showcasing data. The platform should provide means to access the wide range of variety of ESPON knowledge which comes in a form of data, maps, projects reports, handbooks, case studies, tutorials, atlases, policy briefs, scientific and methodological materials. The user should be provided with an opportunity to experience the wealth of knowledge ESPON possesses.
- At the heart of the of such platform should be a mapping interface which allows not only to visualize data on a map but can pull together and visualize different evidence ESPON has produced. There also should be a balance between the orientation towards people more experienced with the GIS software and those who are beginners in spatial analysis methods and tools.
- The update of the content should be built on automation as much as possible, also utilizing web services. The ESPON 2020 Database shall be an integral part of the new portal to ensure access and use of ESPON data.

- There should be a strong connection with different social media platforms, and ESPON tools should be accessible from different kind of digital devices

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[2] See: https://ec.europa.eu/eurostat/cache/digpub/regions/#top

[3] See: https://regions-cities-atlas.oecd.org/

Most people come to ESPON website to search for calls, projects and publications. Thus, people looking for maps, data or spatial analyses are minority, very likely not the general public, whereas ESPON knowledge base offers a huge potential in that domain. By now, the EGTC has collected some statistics on which online tools are being used the most, but there is limited knowledge on how exactly the tools have helped the users to solve problems. It might be the case that many have used the tools just to try them out and do some simple analysis without further intent to use the outcome.

The new solution should provide an incentive and technological means which increase the uptake of any generated results. Thus, a cutting-edge visualization tool should be introduced which allow the results of analysis to be seamlessly inserted in publications, presentations, policy documents, etc.

Figure 2. Illustration of main buildings blocks of the potential ESPON tools architecture in a post-2020 Cooperation Programme
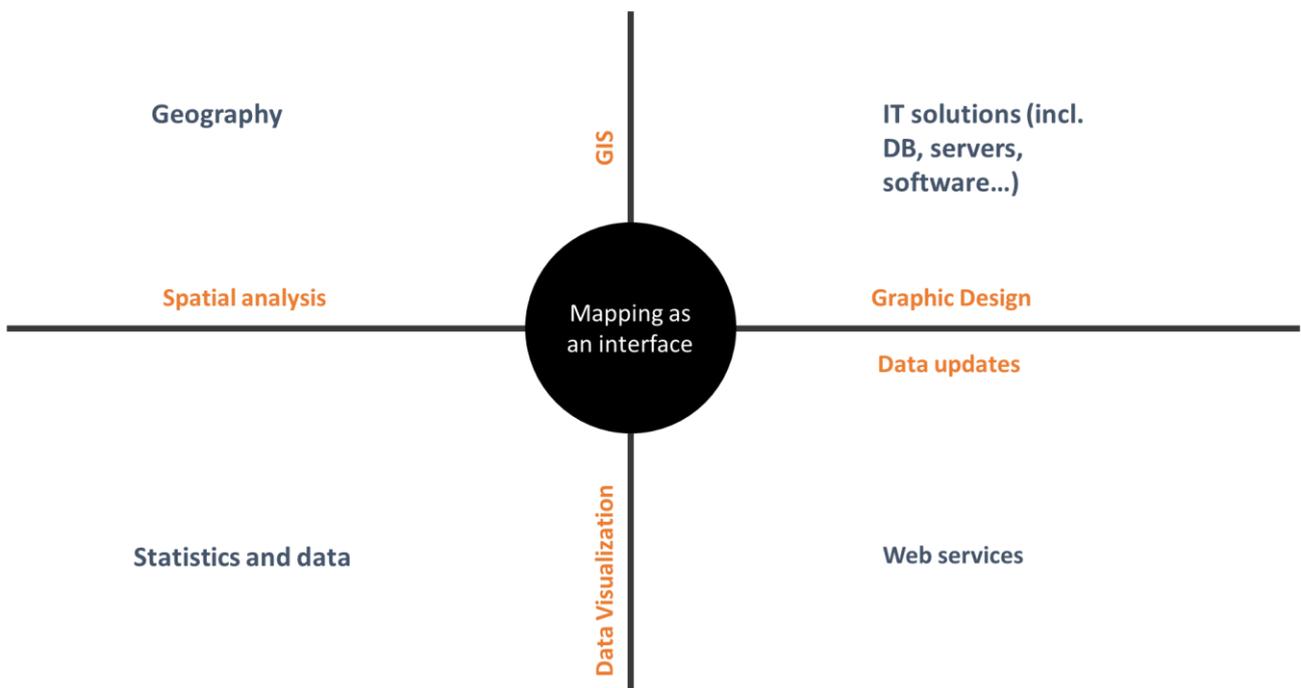
Source: ESPON EGTC

Regarding the mapping functionality, the EGTC is specifically looking at:

Data visualisation:

- The user should be able to visualise all data and indicators saved in the ESPON Database via maps, graphs, time series and predefined or user-defined study areas.

- The user should also be allowed to visualize all ESPON maps catalogue. It should be able to upload its own data and visualize them in combination with ESPON available data and indicators.

- The data visualisation functionalities should target the best of what is currently available on the market and already offered by other public institutions.

Data and maps access:

- The user should be able to tailor scales, legends and zoom-in for its maps

- It should be able to receive outputs from the Online Mapping tool in the form a print, print preview, save, save as, open, save and open map-settings, export.

- It should be able to download all data sets and indicators saved in the ESPON database

Data analysis:

- The user should be able to perform more or less sophisticated possibilities to analyse and interpret data.

User interface:

- The user interface should be user-friendly, clear and structured for general users with no experience with GIS software to present regional data in maps.

- The user interface could offer an expert module to go further in the use of sophisticated functionalities

Web and mobile application:

- The Online Mapping Tool will be hosted on one of the ESPON available servers and should be available via all of the commonly used Internet browsers.

- It should be designed from the beginning for mobile devices