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Sida Decentralised Evaluation

FCG Swedish Development AB

End Evaluation of Regional Project Impuls (Geo-Spatial Data Infrastructure)

Final Report

End Evaluation of Regional Project Impuls (Geo-Spatial Data Infrastructure)

**Final Report
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The views and interpretations expressed in this report are the authors' and do not necessarily reflect those of the Swedish International Development Cooperation Agency, Sida.

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Abbreviations and Acronyms

AREC	Agency for the Real Estate Cadastre of the Republic of North Macedonia
ASIG	National Authority for Geospatial Information in Albania
EU	European Union
FGA	Federal Administration for Geodetic and Real Property Affairs of FBiH
GARS	Republic Authority for Geodetic and Property Affairs of the Republic of Srpska
GIS	Geographic Information Systems
IPRO	Immovable Property Central Registration Office of the Republic of Albania
KCA	Kosovo Cadastral Agency
Lantmäteriet	The Swedish mapping, cadastral and land registration authority
MoU	Memorandum of Understanding
NSDI	National SDI
QA	Quality Assurance
RGA	Republic Geodetic Authority of the Republic of Serbia
REA	Real Estate Administration of the Republic of Montenegro
SAC	State Agency of Cadastre, Albania
SDI	Spatial Data Infrastructure ¹
SGA	State Geodetic Administration of the Republic of Croatia
Sida	Swedish International Development Cooperation Agency
ToR	Terms of Reference
WP	Working Package in this project (similar to component)

¹ An SDI consist of agreements on technology standards, institutional arrangements, and policies that enable the discovery and use of geospatial information by users and for purposes other than those it was created for.

Definitions

Cadastre - A Cadastre is normally a parcel-based, and up-to-date land information system containing a record of interests in land (e.g. rights, restrictions and responsibilities). It usually includes a geometric description of land parcels linked to other records describing the nature of the interests, the ownership or control of those interests, and often the value of the parcel and its improvements. It may be established for fiscal purposes (e.g. valuation and equitable taxation), legal purposes (conveyancing), to assist in the management of land and land use (e.g. for planning and other administrative purposes) and enables sustainable development and environmental protection.

Geo-portal - type of web portal used to find and access geographic information (geospatial information) and associated geographic services (display, editing, analysis, etc.) via the Internet.

Spatial Data Infrastructure - An SDI consist of agreements on technology standards, institutional arrangements, and policies that enable the discovery and use of geospatial information by users and for purposes other than those it was created for. It covers metadata, spatial data sets and spatial data services; network services and technologies; agreements on sharing, access and use; and coordination and monitoring mechanisms, processes and procedures, established, operated or made available

Interoperability - the possibility for spatial data sets to be combined, and for services to interact, without repetitive manual intervention, in such a way that the result is coherent and the added value of the data sets and services is enhanced

Metadata - information describing spatial data sets and spatial data services and making it possible to discover, inventory and use them

Spatial data - any data with a direct or indirect reference to a specific location or geographical area

Spatial data set - an identifiable collection of spatial data

Spatial data services - the operations which may be performed, by invoking a computer application, on the spatial data contained in spatial data sets or on the related metadata

Spatial object - an abstract representation of a real world phenomenon related to a specific location or geographical area.

Executive Summary

Introduction

This is a final independent evaluation of the Sida-funded IMPULS project which aims to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region with the ultimate goal of supporting e-governance, economic development and enhanced cooperation and transparency. The project runs from 30 May 2014 to 31 December 2019 (including a one year of no-cost extension granted on 31 December 2018) and had a budget of 38 million SEK. This is an eleven partner project funded by Sida and implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior project partner. The geographical scope of the project covers six countries comprising of Albania, Bosnia and Herzegovina, Kosovo², North Macedonia, Montenegro and Serbia and involves eight beneficiary organisations.

The purpose of the evaluation is to assist Sida and Lantmäteriet in assessing the performance of the IMPULS project, to learn from what has worked well and what challenges remain, and to assess how sustainability can best be achieved in similar future projects. The primary intended evaluation users are Sida and Lantmäteriet. The evaluation was carried out by an independent evaluation team from FCG Sweden from 17 September to 16 December 2019. The evaluation used a qualitative methodology drawing data from a review of over 130 documents, and consultations with 67 project stakeholders through Skype and face-to-face interviews, email questionnaires, field visits to three beneficiary organisations and attendance at the final closing conference of the project in Banja Luka, Bosnia and Herzegovina in November 2019.

2 * This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

Findings

Relevance: the project is highly relevant, it helps bring beneficiary countries into compliance with the EU INSPIRE Directive, a necessary pre-requisite for those seeking to accede the EU and become Member States. The adoption of NSDIs is a global trend being pursued by major international organisations such as the United Nations and World Bank. Moreover, the sharing of data at national level across government agencies aims policy-making, avoids duplication and waste and increases transparency. The project fits well with Sida's strategy of supporting the development of the reform of public administration and services in transition economies based on a respect for the rule of law, democracy, good governance and human rights. The IMPULS project is a good fit between the needs and interests of both beneficiary and donor organisations.

Effectiveness: the project has been effective in achieving outcomes related to the increased understanding of SDI among BOs; the increased production, use and provision of data by BOs in accordance with SDI requirements; and the promotion of NSDIs at national and regional levels. The project, as the premier regional project on NSDI, has laid the foundation by helping BOs navigate their way around the implementation of the very complex and ambitious INSPIRE Directive. The beneficiary countries were at a basic starting point when the project began; the project has done the ground work by building capacity on all aspects of NSDI and provided initial support for implementation activities. Implementation needs to drive further and is already being done to some extent through BO's own resources and other donor projects. While the high ambition of data sharing at national and regional levels embodied in the INSPIRE Directive still needs to be achieved, stepping stones towards reaching these goals have been put in place. Challenges remain in terms of national capacity, technical issues, legal barriers, resources and political sensitivities. The project's own monitoring framework was not always able to accurately capture the role of the project in developing NSDI in the region due to overly ambitious targets and expectations and insufficient clarification of how results could be attributed to project activities.

Efficiency: The project carried out an intensive set of very wide ranging activities covering all aspects of setting up a functioning NSDI. The high ambition set for the project and the complexity of the task in hand led to some management challenges. The project was designed as a twinning arrangement whereby peer agencies in Sweden and Croatia provided technical support to the BOs. While this proved to be a valued and effective arrangement, it was not always able to deliver timely practical support to BOs, partly because the need for follow-on implementation activities was under-estimated by the project design. Increased coordination at high level between donors/lead agencies may have helped build synergies and fill some of these gaps.

Impact: Long-term impacts such as improved public governance, increased transparency and economic development cannot realistically be tracked to this project. However, intermediate impacts in terms of changes in individuals (awareness and capacity in NSDI) and changes in organisations (human resource capacity, organisational strategies, institutional structures) can be seen. The project contributed to the visible strengthening of national laws and structures on NSDI which in turn will impact on increased access to data by citizens and greater public accountability. The clearest evidence of impact can be seen in the project's monitoring of the NSDI status in each country which shows a stark difference in the baseline situation compared to now; a change in which the IMPULS project has played an important role.

Sustainability: There are strong prospects for sustainability as the work supported by the project is aligned with national goals and integrated into the strategies and business plans of the BOs. Staff funded by the project have been or are expected to be retained subject to the availability of resources. There is a commitment to continuing regional cooperation among the BOs with a signed MOU being a key result of the project.

Cross-cutting issues: Issues prioritised by Sida's funding strategy were integrated into the project to varying degrees. Gender equality was highlighted and resulted in a number of activities and outputs although outcomes in this area were not visible given the nature of the project as a high level technical and coordination intervention. Environment was more closely related to the core function of the project insofar as one of the drivers of NSDI is the need for cross-border coordination and data-sharing at times of natural disaster and crisis. As such various project activities contributed to strengthening national preparedness for environmental crises. Sida's multi-dimensional poverty approach which encompasses a number of human rights principles related to the right of citizens to have voice and accountability was not put on the agenda until a late stage of the project and again given the nature of the project, no direct outcomes were visible.

Conclusions

This was a very complex and challenging project which aimed to develop an infrastructure of national scope in relation to a highly technical subject in six Balkan countries. The development of NSDIs in line with the EU INSPIRE Directive was still relatively new when the project originated in 2014 and compliance with this directive remains challenging to this day even for higher income EU Member States. A useful lesson learned is to ensure that expected results prioritise what is most relevant and feasible in terms of exchanging data at national level before moving on to objectives of general national and regional data-sharing. The IMPULS project alongside contributions by the beneficiary countries and other international donors

has embedded an NSDI in national policy-making and the project's monitoring data shows significant change as compared to the baseline. The project was very ambitious in retrospect, and it also faced many implementation challenges, internal difficulties such as high staff turnover in the participant organisations, as well as external resistance and lack of capacity. Despite this the project has succeeded in delivering key outcomes which have laid the groundwork for a strengthened to system of NSDI in the region.

Recommendations

These recommendations are directed to the primary users of the evaluation, Sida and Lantmäteriet. They are intended as lessons learned for use in planning similar projects in the future and aim to address the challenges which emerged in the implementation of the project and which may be addressed through actions taken by implementing organisations. These are summary recommendations; further explanation is provided in the 'Recommendations' section of the report.

- Strengthen M&E to better capture the direct outputs and outcomes of the project
- Strengthen coordination with other international donors
- Ensure the design of the project is based on a structured needs assessment
- Ensure capacity building interventions go further in ensuring training is followed by an implementation plan
- Enable outsourcing of supplemental technical support if necessary
- Develop a communications strategy to raise awareness of the project
- Ensure gender-disaggregated data is collected in relation to project activities
- Ensure multi-dimensional poverty approaches are highlighted as a cross-cutting issue from the outset and on an ongoing basis
- Review whether environmental concerns can be integrated more fully as a cross-cutting issue
- Integrate specific project components if there is a wish to address cross-cutting issues more substantively

1 Introduction

This is a final independent evaluation of the Sida-funded IMPULS project in the Western Balkans. The evaluation was commissioned under the Sida framework agreement with FCG and carried out by a team comprised of Asmita Naik (Team Leader), Nysret Gashi (Team Member), Karin Nordlöf (Evaluation Manager) and Susan Tamondong (Quality Assurance Expert). The evaluation began on 17 September 2019 with an inception phase, comprised of interviews with Sida and Lantmäteriet, a stakeholder mapping exercise, document collection, and logistical planning. An inception report was submitted and agreed on 7 October 2019.

Thereafter the data collection phase involved Skype interviews with key beneficiary organisation (BO) staff and international partners; email questionnaire for wider BO staff; field visits to three beneficiary countries for interactions with external national stakeholders as well as BO staff; and attendance and observation at the project closing conference on 13 November 2019. The data collected was analysed, the draft evaluation report was reviewed for quality assurance and then submitted to the evaluation users, Sida and Lantmäteriet for comment on 6 December 2019 and finalised on 16 December 2019.

2 Methodology

2.1 OVERALL APPROACH

The overall evaluation approach involved gathering and analysing data from both primary and secondary sources. Although the evaluation primarily took a qualitative approach using qualitative data, some quantitative data previously collected by project participants was analysed and integrated into the evaluation report. The evaluation methodology considered results at different levels – outputs, outcomes and impacts but used different methods, namely documentary review, interviews, questionnaires and observation, to verify these results. As an end of project evaluation, the focus was mainly on assessing outcomes and impacts through primary data collection whereas the achievement of outputs was mainly assessed by reviewing secondary data.

A mapping of documents and stakeholders was carried out in the inception phase in order to plan how the different sources and methods could answer the different evaluation questions. The evaluation drew on data collected by the project in its own monitoring framework (including the findings of its Outcome Mapping monitoring) and in order to ensure consistency, the evaluation also framed its enquiry around the project's outcome statements with the caveat that it would remain opening in its questioning to identifying outcomes which were not predicted by the original project design. It emerged during the inception research that the outcomes in the original design were not necessarily realistic; as such the evaluation took the approach of ensuring it was not bound solely by the project's results framework.

2.2 METHODS

The evaluation adopted a mixed-method approach in order to assemble the range of qualitative and quantitative data necessary to answer the evaluation questions. Triangulation was key to ensuring the reliability and validity of the findings and to mitigate any biases or problems that may arise from one single method or a single observer. Triangulation involved cross verification of evaluation findings from two or more sources, by combining data from multiple participants (in different locations throughout the period of implementation) and varying documentary sources.

The evaluation used the following methods:

Documentary review – this comprised a review of key project documents including decision-memos, agreements, project steering documents, periodic reports, progress reports, technical reports. The evaluation also drew on wider international references and reports in order to acquire an understanding of this policy area. Over 130 documents were reviewed (Annex 4) with key documents such as semi-annual reports considered in more detail than others.

Individual and group interviews – Interviews were carried out by Skype and in face-to-face meetings as follows:

- Primary evaluation users from Sida and Lantmäteriet were interviewed by Skype in the inception and early data collection phases and further questions were discussed in face-to-face meetings and via email correspondence;
- National coordinators from the eight BOs and the coordinating advisor from SGA were interviewed by Skype in the early data collection phase and in some cases in face-to-face meetings during the field visit;
- BO Director Generals/Project Steering Committee members were interviewed in face-to-face meetings during the field visits or provided inputs by email.
- International stakeholders were interviewed by Skype. All stakeholders suggested by the project were interviewed, no sampling was involved.
- Wider country level external stakeholders interviewed in individual or group meetings. As sample of external stakeholders were consulted by the evaluation depending on whether their country was selected for a field visit and their availability during the field visit (see below).

The individual and group interviews took a semi-structured format using interview instruments (Annex 3) which set out the areas and questions to be covered and to ensure coherence within the data collection when meeting different stakeholders whilst leaving room for the evaluation team to expand qualitatively on issues as they arose.

Questionnaires – the evaluation used an email questionnaire in order to receive feedback from project staff in the eight beneficiary organisations, the junior partner, SGA, and other staff involved in the project at Lantmäteriet. The purpose of this exercise was to enable all staff to contribute if they so wished, no sampling was involved, the opportunity was open to all, but not all responded.

Field visits – short day long field visits to three beneficiary countries were conducted in order to acquire an understanding of implementation on the ground. The organisations/countries to be visited were sampled on the basis of various criteria which were discussed with primary users during the inception phase. Field visits to

Kosovo³, North Macedonia and Serbia were agreed. These sites were selected as they had submitted a variety of country level stakeholders in the stakeholder mapping exercise; had ease of access for the evaluation team; their geographical proximity made it easy to combine country visits; and the engagement of the BO indicated confidence that a visit could be supported and facilitated.

While the selected countries are also relatively advanced in terms of implementation, the evaluation ensured this did not result in a positive and biased view of implementation by ensuring that the evaluation allowed for sufficient discussion of challenges and difficulties both during the field visits and through other evaluation methodologies. The planning of field visit itineraries was left to the BOs. Eventually, as time onsite was limited, the evaluation team met with whichever external stakeholders were available and there was little scope or need for more purposive sampling in terms of other criteria such as their role in the project, or ensuring a gender balance etc.

Observation – The field visit was timed to coincide with the IMPULS closing conference on 13 November 2019 in Banja Luka, BiH. Attendance at the project’s final conference in BiH offered the opportunity to observe the project in action, to listen to speeches and conclusions by the project participants, and to observe interactions and dialogue. The conference also provided further opportunities to interact with BOs, especially DGs, and also staff and external stakeholders from the host BO (GARS).

Evaluation contributors

The evaluation received contributions from 67 individuals comprised of 55 project participants and 16 external stakeholders as shown in Table 2 below. The respondents are broken down by sex and show 25 female and 42 male contributors. Annex 5 lists evaluation interviews by name, sex, organisation, job title and evaluation consultation method. In some cases as noted in Annex 5, respondents contributed on multiple occasions through different methods.

³ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 1 Breakdown of evaluation respondents

Stakeholder	Staff	External
SIDA	1 (F)	
LANTMÄTERIET	3 (M)	
SGA	(1 F; 3 M)	
ASIG	2 (M)	
SAC (former IPRO)	1 (M)	
FGA	6 (1 F; 5 M)	
GARS	2 (1 F; 1M)	1 (M)
KCA	9 (2 F; 7 M)	2 (M)
REA	8 (6 F; 2 M)	
AREC	11 (5 F; 6 M)	8 (3 F; 5 M)
RGA	4 (2 F; 2 M)	1 (M)
INTERNATIONAL STAKEHOLDERS		4 (3 F; 1 M)
Total	55	16
Overall total	67 (25 Females; 42 Males)	

The evaluation used the following approaches:

Participatory and utilization approach - The TOR emphasised the need for the evaluation to be utilization-focused. The evaluation thus aimed to promote stakeholder ownership of the evaluation results, in order to increase the likelihood that recommendations and lessons learned are taken on-board and utilization is maximised. The evaluation was oriented towards a participatory approach to maximize utilization, validity and reliability of collected data. The evaluation team addressed this by establishing a collaborative communication with the primary intended users and the project beneficiaries. Firstly, by ensuring methodologies and processes involved regular consultation with the primary intended users. This involved skype calls at start-up and inception phases as well as evaluation interviews early on in the process. In addition, the team leader met with the primary users at the project closing conference and took the opportunity to give a debrief of emerging findings and to seek feedback. The draft evaluation was also shared for comments and a final Skype call arranged to discuss amendments and finalisation.

Secondly, the evaluation also ensured a participatory approach which provided ample opportunities for project beneficiaries to input into the evaluation. Given the number of countries, BOs and external partners involved, the evaluation had to sample some stakeholder categories as indicated above since it was unfeasible within the time and resource constraints to consult all. Nonetheless, the evaluation sought to consult as many stakeholders as possible in order to enhance the reliability of the evaluation findings. Sufficient time was allowed for reflection and dialogue through initial

Skype interviews, followed by face-to-face discussions during the field visit and by further email exchanges as needed.

Gender-responsive approach – The evaluation reports on how the project interplays with issues of gender equality, whether there is a relevance in the project addressing the different priorities and needs of women and men, and what, if any, impact it has had on gender relations in the ‘Findings’ section of this report under ‘Cross-cutting issues’. The evaluation uncovered the project’s plans for addressing gender equality during the inception phase and sought to elucidate these further in evaluation enquiries. In addition, the evaluation sought to explore whether there were any other gender implications of the project; this was not obvious from the early inception interviews given the high level nature of the project and its technical focus on data management.

As such the evaluation aimed to explore gender equality as stressed in the TOR with the caveat that there may be aspects of this project/technology which are essentially gender neutral in the sense that they have no direct bearing on gender equality. The evaluation itself has sought to be gender-balanced in terms of its core membership with the team leader being female, the team member being male and the two additional support roles being female. The evaluation could not do much to be more purposive in selecting evaluation interviewees based on sex; the evaluation was largely open to all stakeholders and their ability to contribute depended on their role in the project. Nonetheless, the evaluation has broken down evaluation respondents by sex (Table 2).

Environment – the evaluation considered environmental issues from two perspectives. Firstly, the way in which the project itself took environmental issues into account or had an environmental impact as discussed in the ‘Findings’ section of this report under ‘Cross-cutting issues’. Secondly, the evaluation itself considered the environmental impacts in its own evaluation planning. As the team leader is based in the UK, some international travel was unavoidable. In order to reduce international travel, the field visits were carried out directly before the project closing conference in order to avoid two trips from the UK to the region. Some flights around the region were also necessary due to time limitations and security issues i.e. Skopje to Belgrade but road travel was used wherever feasible i.e. Skopje to Prishtina; Banja Luka to Zagreb; and Belgrade to Banja Luka.

Multi-dimensional approach – This issue was raised by Sida for inclusion in the evaluation during the start-up meeting. The evaluation found in its inception research that this issue was not a key focus of the project documents but that the matter would be explored during interviews and further documentary review. The potential overlaps between the multi-dimensional approach and the human-rights based approach were also noted and discussed with Sida during the inception phase. It was

agreed that there were some similarities and that the focus of the evaluation research and report, should be on the common notions of the impacts of the project on the population in terms of enhancing their voice, rights and accountability, for example, increased ability of women to register for property rights etc.

Human-rights based approach –The evaluation proposed to explore human rights implications of the project in various ways: whether project activities are founded on human rights standards or lead to a fulfilment of specific rights; whether key human rights principles namely universality, non-discrimination, the indivisibility and interdependence of rights, and accountability and voice are manifested in the project design and delivery; and whether the project supports those who have obligations to respect, protect and fulfil rights, by helping them develop their capacities to do so while supporting rights holders to develop their capacity to claim their rights. It was not obvious at the inception phase that the project would have direct human rights implications but it was agreed that this would be a matter for further inquiry. The evaluation also notes that there were no direct human rights implications in terms of the delivery of the evaluation itself.

2.3 INSTRUMENTS FOR DATA COLLECTION

The evaluation developed three evaluation instruments in the form of two interview guides and an email questionnaire.

Individual and group interviews

Interviews were carried out using a semi-structured format which drew on the evaluation questions and criteria. The interviews were carried out via Skype or in face-to-face meetings during the field visits.

There were two instruments for evaluation interviews:

- *Instrument for key project stakeholders* – this instrument was used for interviews with Sida, Lantmäteriet, SGA and the eight BOs. It integrated all the evaluation criteria and questions but re-ordered the questions into a more logical flow and included introductory and closing questions and remarks. This instrument was used for key project staff from Sida, Lantmäteriet and the national coordinators from the beneficiary organisations. The instrument allowed for adaptation to each interviewee as it was anticipated that not all interviewees could answer all questions. It was also truncated as needed, for example, a shorter list of interview questions was prepared for interviews with the director-generals of the eight BOs as they had less time available and wished to focus on key points instead. The full population of key project stakeholders was included in this exercise namely Sida and Lantmäteriet staff,

coordination advisor from SGA, national coordinators and director generals from eight beneficiary organisations. The interview instrument was shared in advance to help interviewees prepare. A preliminary version of this document was used for interviewing primary users during the inception phase. See Annex 3 for instrument.

- *Instrument for wider external stakeholders both country level and international* – this was a shorter instrument which took account of the limited time available with external stakeholders (not more than an hour) and focused on their experiences and perspectives of the project. It was used both for individual interviews and group meetings. It did not seek to address all the evaluation questions but allowed the flexibility for stakeholders to focus according to their area of knowledge or experience. This instrument was used during field visits. The instrument was shared in advance and translated into the four main languages in the region (Albanian, Bosnian, Macedonian and Serbian) to help interviewees prepare. See Annex 3 for instrument.

The evaluation instruments were primarily a guide; the semi-structured format was intended to facilitate a discussion but not to ask very specific questions in an overly systematized way. The language and content was adapted to each stakeholder and type of meeting being held. The questions are couched in a broad and open way and responses were then be matched up in analysis to the evaluation issues raised by the evaluation TOR. The aim was to ask questions in a user-friendly way without ‘leading’ interviewees to specific responses. The instruments were administered directly by the team leader with the team member in attendance to help with translation and technical issues.

Questionnaires

Email questionnaires (see Annex 3) were used for consulting other project staff in the eight beneficiary organisations, for example technical staff responsible for work package components. This instrument comprised of qualitative questions framed around the evaluation criteria and questions and followed the same format at the interview instrument. It was not intended to result in statistical or quantitative data but rather as a means of acquiring further qualitative input. The email questionnaire was distributed to the full population of project staff. As the email questionnaire was self-administered by the recipient, it included additional words of guidance to help the respondent understand the process.

Documentary analysis

The evaluation did not use a specific tool for documentary analysis but rather analysed the documents in accordance with the evaluation criteria and questions. The evaluation focused on key documents such as inception reports and semi-annual

progress reports and reviewed other documents in a more cursory way given time limitations.

2.4 PROCESS OF ANALYSIS AND DEVELOPING CONCLUSIONS

Data was collected using the systematic instruments described above across countries and stakeholders. The analysis involved analysing the data according to evaluation criteria and questions. The evaluation matrix (Annex 2) set out a framework for analysis which was deliberately kept broad and flexible in order to respond to issues as they arose rather than being tied into rigid assessment indicators based on a preliminary reading at an early stage of the evaluation. Analytical tools were developed based on the data collection tools in order to draw out data from questionnaire responses and documents on the evaluation criteria and cross-cutting themes. This analysis was carried out manually by the evaluation team and no specialized software was used.

The systematisation of data collection and the consistency in the evaluation instruments enabled triangulation across different stakeholder groups and countries with respect to responses to the various evaluation criteria and questions. The evaluation drew on several different sources as well as types of information to verify and substantiate its findings. This helped to eliminate bias and enhance the reliability of evaluation findings. As stated above, the evaluation used multiple methods to collect data. The variety of methods offered various opportunities for triangulation; by comparing information from the same type of source (e.g. project progress reports); or between sources (e.g. confirming project reports of progress with stakeholder interviews); or by comparing data across countries.

The analysis involved the qualitative data collected by the evaluation and also some quantitative data collected by the project. The primary source of information was the original data gathered by the evaluation as the basis for reporting and in arriving at conclusions. Other internal and external analyses of project performance (i.e. project monitoring data) were used to cross-check the evaluation's own findings. This is a final independent evaluation which aims to give an overall strategic analysis of project performance; descriptive details of project outputs and activities were not therefore recounted at length.

This process is distinct from the project's internal monitoring; and the evaluation is not solely reliant on using the project's own indicators and data when making an assessment. The analysis was carried out by the team leader who has primary responsibility for data collection, analysis and report-writing with the assistance of the team member as needed. The findings are presented in overview form rather than

going into the details of individual project components or making comparisons by country. The conclusions and recommendations derive directly from the evaluation findings and are based on evidence gathered by the evaluation. Finally, this data is analysed and presented in line with the FCG/Sida framework contract evaluation template.

2.5 ETHICS AND PARTICIPATION

The evaluation sought to adhere to the ethical principles required of Sida-financed evaluations⁴. These require evaluations to abide by relevant professional and ethical guidelines and codes of conduct for individual evaluators. The following key principles are highlighted for this evaluation:

Integrity and honesty – Objectivity and the need to generate credible evidence is essential for the usability and acceptability of the evaluation findings going forward.

- Integrity was addressed by having a variety of research methods and sources to triangulate findings.
- The TOR did not specifically require this to be a participatory evaluation with an intensive role in directing the evaluation given to all project stakeholders. Nonetheless, meaningful consultation and the participation and involvement of project stakeholders was considered important in ensuring a comprehensive and valid insight into the project's performance. The evaluation sought to engage stakeholders while at the same time ensuring that the evaluation was free from bias and conflict of interest, for instance, by requesting that staff from BOs did not participate in meetings where their presence might have inhibited respondents from wider external stakeholder organisations.
- The evaluation team carried out its own due diligence to ensure that team members do not have a conflict of interest or any prior connection with the project or its stakeholders. In this respect, team member, Nysret Gashi, reviewed the stakeholder list and declared a prior connection with two potential interviewees in the Kosovo Cadastral Authority. This conflict of interest was assessed and managed to ensure that the relevant stakeholders were able to provide input to the team leader alone.

⁴ OECD DAC, DAC Guidelines and Reference Series Quality Standards for Development Evaluation. 2010 – see <https://www.sida.se/English/how-we-work/evaluation/>

- Translations were carried out by the evaluation team itself. There were occasional ad hoc instances, for instance, during the IMPULS closing conference where translation support was necessary and was provided by persons who did not have a conflict of interest.

Confidentiality and privacy – All meetings were carried out on a confidential and non-attributable basis.

- The parameters and purpose of the research as well as the use of information in the report on a non-attributable basis was explained in meetings with all stakeholders.
- Key informants and external partner agencies (contributing in Skype or face-to-face meetings and through the email questionnaires) were explained the purpose and basis of the research and their continuation in the process will be taken as informed consent. The evaluation did not planning to use signed written consent forms; given the nature of the subject, high level data management, and the absence of obvious sensitivities or conflicts within the stakeholder groups, the use of such forms was seen as unnecessarily bureaucratic.
- The report does not name individual sources and takes care to avoid presenting the information in a way that points to a particular source, especially where the information may be perceived as negative. In any event, the evaluation aimed to foster a participatory approach and encourage the evaluation to be seen as a valuable learning exercise for all concerned to help overcome such concerns.

Cultural sensitivity – the evaluation was aware of the need to respect human rights and differences in culture, customs, religious beliefs and practices in accordance with the OECD DAC quality standards. In this respect, the most obvious issue was for the evaluation to be aware of the legacy of the conflicts in the region in their dealings with stakeholders.

Equality – the OECD DAC quality standards require evaluators to be mindful of gender roles, ethnicity, ability, age, sexual orientation, language and other differences when designing and carrying out the evaluation. As noted in section 2.2 the evaluation set-up and planning was cognisant of gender equality, human rights and

the environment. In addition, care was taken in the evaluation planning to enable the participation of its team member from Kosovo⁵ without creating risks (for instance, early plans to drive from Kosovo⁶ to other parts of the region were dropped due to the risks of harassment and intimidation en route).

2.6 LIMITATIONS

The evaluation faced a number of challenges and has responded to them as follows:

Focus – a final project evaluation such as this can play a valuable role in providing a strategic perspective and giving an overall view of progress in the countries involved. In this sense it is distinct from ongoing monitoring and detailed tracking of outputs. The evaluator had sight of very useful semi-annual progress reports and other monitoring information which goes into much technical detail on developments in relation to specific components. The detailed monitoring which has been carried out by the project was taken into account in the evaluation analysis but the evaluation itself seeks to strike a careful balance between focusing on the detail vs. taking a higher level and strategic view of results.

Time and resources – this is a complex evaluation of a regional project spanning six countries with interventions of national scope. There are eleven main stakeholder organisations and multiple national level stakeholders in each country who are engaged with the project. As noted earlier, the evaluation was bound to sample respondents to some extent. Despite the constraints of time and resource, the evaluation was able to open up the evaluation extensively and enable inputs from all project participants who wished to contribute.

Language constraints – despite the various languages in the region and the team leader only being able to work in English, language was not as much of a constraint as anticipated. The official project language is English, the project documents are in English, and many of the stakeholders could converse in English. The team leader was assisted by a team member who had the necessary language skills and assisted in

⁵ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

⁶ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

meetings in Skopje and Prishtina. Thereafter, the team leader was assisted by ad hoc support as needed.

Field visits – some adjustments had to be made to the initial field visit plans. Team member, Nysret Gashi was not able to travel around the region freely from his home base in Kosovo⁷ due to visa restrictions. The team leader therefore carried out the Serbia visit and attendance at the closing conference in Banja Luka, BiH alone. The Serbia visit also did not go to plan; it transpired that the agreed mission dates fell on a national holiday making it impossible to arrange meetings with external stakeholders. The time was instead used for an in-depth meeting with the NC and to arrange meetings with external parties and other BO staff the following day.

Political sensitivities – The evaluation takes account of the political sensitivities in making comparisons between countries in the region. Some overview information about national developments is in the IMPULS book that has recently been produced; however detailed information about national progress in relation to NSDI as captured by the project's monitoring is not publicly available. The countries were at variable starting points and have developed in different ways and to different levels. The evaluation is not in a position to make an informed detailed comparative analysis. As such the evaluation avoids giving specific examples in its reporting and instead anonymises and generalises its findings.

⁷ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

3 The Evaluated Intervention

3.1 BACKGROUND AND PURPOSE

This is an evaluation of the Sida-funded IMPULS project which aims to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region. The project runs from 30 May 2014 to 31 December 2019 (including one year of no-cost extension granted on 31 December 2018) and has a budget of 38 million SEK. This is an eleven partner project funded by Sida and implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior project partner.

The geographical scope of the project covers six countries comprising of Albania, Bosnia and Herzegovina, Kosovo⁸, North Macedonia, Montenegro and Serbia and involving eight beneficiary organisations (This constitutes one organisation in each country except for two beneficiary organisations in Albania and in Bosnia and Herzegovina). The Croatian national land administration agency (SGA) is the junior implementing partner.

The rationale for the evaluation is to carry out a final project evaluation in the last quarter of the project as it comes to an end. Its purpose is to assist Sida and Lantmäteriet in assessing the performance of the IMPULS project, to learn from what has worked well and what challenges remain, and to assess how sustainability can best be achieved in similar future projects. The primary intended evaluation users are Sida and Lantmäteriet.

⁸ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

3.2 EVALUATION OBJECT AND SCOPE

Evaluation object

The evaluation object is the IMPULS project which was set up in the context of the drive to facilitate the sharing of spatial information both within and across countries. The European Union (EU) INSPIRE Directive came into force in 2007 with full implementation required by 2020. The Directive aims to create an EU spatial data infrastructure to enable the sharing of environmental spatial information among public sector organisations and better facilitate public access to spatial information across Europe. To this end, an EU-funded INSPIRATION project was implemented from 1 January 2012 to 31 December 2013 in the pre-accession beneficiary countries of Albania, Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Serbia, and Kosovo⁹. It was financed through the EU with Instrument for Pre-Accession (IPA) funding with a maximum budget 1,500,000 EUR.

The IMPULS project was set up after the end of the INSPIRATION project in order to build on its results, experiences and lessons learned and to take the next step in this area within the region. It was originally intended as a four-year project running from 30 May 2014 to 31 December 2018 but a one year of no-cost extension was granted resulting in an end date of 31 December 2019. The IMPULS project is financed by Sida with Lantmäteriet as the implementing partner with the aim of continuing the cooperation that was developed during the INSPIRATION project and expand this both to make it wider (involving more stakeholders and more issues) and deeper (hands on workshops, joint development, sharing experiences etc.).

The aim of the IMPULS project was to move from more general activities for raising awareness, making analyses and transference of high level knowledge to increasing practical knowledge, capacity and supporting actual implementation of the INSPIRE Directive – all focusing on cooperation, hands on work and sustainability. The IMPULS project covers the same countries except for Croatia; since Croatia became an EU member state in the interim, it cannot be an official beneficiary of the project but the State Geodetic Administration of the Republic of Croatia (SGA) remains involved as a junior implementing partner. The beneficiary organisations are as follows:

⁹ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

- State Agency of Cadastre (SAC) (former Immovable Property Central Registration Office of the Republic of Albania -IPRO)
- National Authority for Geospatial Information in Albania (ASIG)
- Federal Administration for Geodetic and Real Property Affairs of FBiH (FGA)
- Republic Authority for Geodetic and Property Affairs of the Republic of Srpska (GARS)
- Kosovo Cadastral Agency (KCA)
- Agency for the Real Estate Cadastre of the Republic of North Macedonia (AREC)
- Real Estate Administration of the Republic of Montenegro (REA)
- Republic Geodetic Authority of the Republic of Serbia (RGZ)

The core idea behind the project is to improve policy-making through the development of an NSDI. The increasing pressure on land and water resources means that planners and policymakers alike have an ever-increasing need for more data, from more sources to solve everyday problems. Within this background, the development of an efficient NSDI is a means of facilitating the access and reuse of data from different sources for the benefit of planners and policy makers at all levels in society. The aim of an NSDI is to remove barriers for data sharing between organisations in a country or region. Examples of barriers are:

- legal issues and frameworks that prevent data sharing between organizations;
- charging and licensing issues not allowing efficient reuse of data as receiving organization may not have the funds necessary to access the data;
- technical issues such as data are not complete, standards are not applied, poor documentation etc.

The rationale for the project was that it would help bring the national infrastructure of beneficiary countries up to the level of international good practice and further assist those seeking to join the EU in due course by preparing them to meet its membership requirements. The project proposal noted that the beneficiary countries had basic e-service infrastructure or geoportals but interoperability between countries was very low. Cross border services were complicated by incompatibility and inconsistency of data, for example, by the different coordinate reference systems used in the countries. Funding NSDIs from the state budget appeared to be a challenge in all countries.

As the countries of the Western Balkans region are relatively small and have limitations in available resources, regional cooperation was considered a key factor for better synergies and mutual benefits. One major problem in the region was also the lack of qualified personnel, not only in terms of knowledge and experience but

also the numbers of individuals available to do the work required. The project was thus premised on the basis that external support was needed to address these issues.

The project was designed for delivery through six work packages (or components): WP1 – Project Management and Administration; WP2 – Data Sharing Policy and Regulations; WP3 – Data Harmonisation; WP4 – Metadata and Quality Evaluation; WP5 – Dissemination: Services, Portal (s); WP6 – Benefits: Demonstrations, Pilot implementations. In April 2016, this was redesigned and the five technical WPs were rolled into one WP known as WP 26 and the action plan divided into six categories: coordination, discovery, harmonisation, services, agreements, legal framework each with several milestones.

The overall project budget was SEK 38,892,627 (approximately EUR 4 million) divided as follows between work packages:

Table 2 IMPULS project budget

WP	Item	Fees	Reimb. cost	Assignm. Cost	Total
WP1	Project Management and Administration	4 508 600	386 000	8 689 300	13 583 900
WP2	Data Sharing Policy and Regulations	1 599 000	149 100	1 969 614	3 717 714
WP3	Data Harmonization	1 377 600	108 300	2 050 477	3 536 377
WP4	Metadata and Quality Evaluation	1 771 200	202 500	2 311 750	4 285 450
WP5	Dissemination (incl. Services & Portal (s))	2 410 800	252 500	2 970 375	5 633 675
WP6	Benefits (incl. Demonstrations & Pilot implementations)	2 804 400	438 750	4 892 361	8 135 511
Summary		14 471 600	1 537 150	22 883 877	38 892 627

Budget per WP divided into fees, reimbursable and assignment cost

A results matrix was developed during project proposal stage setting out the expected impact, outcomes and outputs. The overall expected project impact was defined and three outcomes set. The project monitoring system used an ‘Outcome Mapping’ methodology and the full outcome statements and progress indicators are found later in the report in Table 3.

The project monitoring system comprised semi-annual reporting against the outcomes and progress markers using a variable set of indicators. Other monitoring tools were developed at later stages of the project. The project results framework defined intended impacts and outcomes as follows:

Impact

- INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area.
- Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive.
- Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions ‘Competitiveness’, ‘Effective public services’ and ‘Anti-corruption’).

Outcomes

- Outcome Statement 1:
Beneficiary Organisations understand how they contribute to an efficient SDI and have a clear view of the different SDI roles (user, producer and coordinator) and there are mutual respects between agencies having these roles throughout the region.
- Outcome Statement 2:
Beneficiary Organisations are using data from other sources, both national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.
- Outcome Statement 3:
Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI’s. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

The project’s theory of change as set out in the project proposal describes how expected outcomes were intended to be achieved. It emphasised that the success of the project would rely mainly in cooperation at different levels – sharing data and working together to increase the benefits of this data as well as working together to collect more high quality data. It noted that there were designated agencies in each country responsible for the production of data sets, alongside the existence or preparation of framework documents for developing NSDI and the existence of some kind of e-service related to spatial data. However, there were various challenges as

described earlier in terms of the compatibility of data, and the lack of finance and human resources. The project was premised on the theory that addressing these challenges would be best approached by working together rather than individually.

The project would provide means for cooperation (workshops, meetings, trainings etc.) and international experts (mainly Swedish and Croatian) with the necessary experience, competence and skills. The project would develop existing cooperation in the region and establish new ways for cooperation, such as forums, stakeholder seminars, off-line cooperation, and technical workshops etc. Sharing experiences, doing hands on work together, would generate the expected impact. The work done in the project would strengthen the BOs and they would more actively lead the INSPIRE implementation in their respective country as well as jointly in the region. The result would be an infrastructure in accordance with the INSPIRE Directive enabling the beneficiary countries to meet the EU requirements in this area and deliver content and services supporting e-government in each country.

Evaluation scope

The evaluation scope encompasses all eleven stakeholder organisations, the full implementation period from 30 May 2014 to 31 December 2019, the range of components (or work packages) and a geographical area covering all six beneficiary countries and eight beneficiary organisations. The objective of the evaluation is to assess the results achieved by the project in relation to the outcomes set, activities planned and implemented. The evaluation is also expected to assess relevance and to provide lessons learned. The evaluation uses the OECD-DAC criteria – relevance, effectiveness, efficiency, impact and sustainability to make the assessment and integrates the cross-cutting issues of gender equality, human rights-based approach/Sida’s multi-dimensional approach to poverty, and environmental concerns in the analysis.

3.3 EVALUATION CRITERIA AND QUESTIONS

The evaluation criteria and questions were elaborated in the TOR (Annex 1) and further clarified during the inception phase to ensure alignment in meaning with OECD-DAC definitions as stated in the 2014 Sida ‘Glossary of Key Terms in Evaluation and Results Based Management’¹⁰ and to address issues of evaluability.

¹⁰ Available at: <https://www.sida.se/contentassets/e90423c8aec74fecba0105ab6b63b976/15387.pdf>

The evaluation questions in the TOR were reviewed during the inception phase and explanations for additions, deletions or adaptation provided in the inception report. While the evaluation questions were expanded, it was not expected that the evaluation would explore all questions in equal depth; rather the aim of the questions was to facilitate as rounded an enquiry as possible but to be responsive to the key issues as they emerge on the ground. Some comments on how the evaluation criteria were applied and the revised evaluation questions are listed below. It should be noted that responses to these questions in the evaluation report are not necessarily found in the order listed; the findings have sometimes been re-organised to follow the logic of the information collected.

Relevance

The evaluation expanded on the TOR questions to consider relevance to context and also fit with Sida's strategy and results area (2) "Strengthened democracy, greater respect for human rights, and a more fully developed state under the rule of law" to see how the project supports democracy, human rights and the rule of law in project countries.

Evaluation questions:

1. To which extent has the project conformed to the needs and priorities of the beneficiaries and donor policies? How is the project relevant to the national, regional and Europe-wide context?
2. Assess the relevance of the project design, is the approach still relevant? Was the design based on a needs assessment and context analysis? Was the design the most appropriate way to meet the needs identified? What are the lessons learnt from the project in this respect? What collaboration and co-ordination arrangements were applied and how well did they function?
3. Assess the relevance and appropriateness of having a Swedish institutional partner in collaboration with a Croatian institution, delivering the support? What were the advantages and disadvantages of the solution chosen?
4. How does the project serve the purpose of respect for human rights, democracy, Sida's multi-dimensional approach to poverty, rule of law and gender equality?

Effectiveness

The evaluation focused its assessment of progress against the three project outcomes in order to build on the monitoring already carried out by project partners. It was noted that the project was implemented through six defined work packages which link to the project outcomes in a cross-cutting way; the evaluation thus integrated references to work packages in the overall analysis of outcomes. The evaluation also primarily looked at the cross-cutting issues of 'gender equality', 'multi-dimensional poverty approach/human rights-based approach', and 'environment' from the

perspective of the effectiveness of the project in tackling these issues; while none of these were explicitly addressed as a project outcome, they are a core part of Sida's development funding strategy and as such, the degree to which the project has contributed to them is an important consideration.

The evaluation also explored why results were achieved/or not achieved and the external factors related to the wider political and policy environment influencing implementation. As the evaluation progressed, it became particularly important to look at the question of attribution and to assess the project's contribution towards national results in the field of NSDI.

Evaluation questions:

5. To which extent has the project contributed to intended outcomes? What was achieved or not achieved in relation to outcomes?

- 5.1. Project outcomes:

- 5.1.1. Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region.
- 5.1.2. Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.
- 5.1.3. Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

- 5.2. Project work packages:

- 5.2.1. WPI – project management and administration
- 5.2.2. WP2 – data sharing policy and regulations
- 5.2.3. WP3 – data harmonization
- 5.2.4. WP4 – meta data and quality evaluation
- 5.2.5. WP5 – dissemination (services and portal)
- 5.2.6. WP6 – benefits – demonstrations, pilot implementation

5.3. Cross-cutting issues:

- 5.3.1. Gender equality – Has the project had any positive or negative effects on gender equality? Could gender mainstreaming have been improved in planning, implementation or follow up?
 - 5.3.2. Human rights-based approach – Has the project had any positive or negative effects on human rights?
 - 5.3.3. Environment – Has the project had any positive or negative effects on the environment?
 - 5.3.4. Sida's Multi-dimensional approach to poverty – Has the project had any positive or negative effects on the multi-dimensional approach?
6. What other unanticipated or unexpected 'results' (not in the original plan) were achieved?

Efficiency

The evaluation interpreted this criterion more broadly than simply focusing on cost effectiveness and considered various internal factors such as management, partnerships, budgets, institutional capacity etc. The evaluation elaborated on the initial questions listed in the TOR to consider such aspects. The TOR suggests a question related to cost effectiveness which will be included in this section.

Evaluation questions:

7. What were the major factors influencing the achievement or non-achievement of the outcomes? [This includes internal issues such as management, resources, relationships, programme design/planning, monitoring and evaluation, institutional capacity as well as the external context - policy, politics, socio-economic issues; partnerships and relationships with external organisations etc.]
- 7.1. Has the M&E system delivered robust and useful information that could be used to assess progress towards outcomes and contribute to learning?
 - 7.2. How well have partnerships and cooperation worked to fulfil the goals of the project?
 - 7.3. To what extent has the Swedish-funded IMPULS project coordinated with other projects funded by other donors which also provide support to the Beneficiary Organisations in relation to the same issue, in order to optimise the effects of the support provided by different donors?
 - 7.4. To what extent has lessons learned from what works well and less well been used to improve and adjust project/programme implementation?
 - 7.5. Can the costs for the project be justified by its results? To what extent were the resources and inputs converted to outputs in a timely and cost-effective manner?

Impact

The evaluation considered impacts but with the caveat from the outset that a full impact assessment was not realistic within the scope and resources available; the complexity of tracking primary and secondary impacts on beneficiary organisations as well as wider stakeholders/end users; as well as the challenges in attributing impacts to this project vs. other projects/activities (such as the earlier INSPIRATION project) when dealing with such a major national policy issue.

Evaluation questions:

8. What is the overall impact of the programme in terms of direct or indirect, negative and positive results? What is the most significant change you have seen as a direct result of the Programme?
 - 8.1. INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area. (original impact statement)
 - 8.2. Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive. (original impact statement)
 - 8.3. Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions ‘Competitiveness’, ‘Effective public services’ and ‘Anti-corruption’. (original impact statement)
 - 8.4. Establish the extent to which there have been changes in relation to cross-cutting issues (gender equality, human rights, environment) as a result of the project?

Sustainability

It was also recognised that sustainability likewise would be challenging to assess within the context of this type of evaluation and would be considered to the extent that it was realistic and feasible to do so. In practice, the evaluation found it easier to find evidence of sustainability as opposed to impacts, since the question of sustainability was more direct linked to BOs and their future plans.

Evaluation questions:

9. Is it likely that the benefits (outcomes) of the project are sustainable?
 - 9.1. To what extent have the Beneficiary Organisations devoted time and resources for the completion of the project during the project time?

- 9.2. What is the level of project ownership from the side of the Beneficiary Organisations: are they ready to build on the project achievements and carry on?
- 9.3. Are there any areas that still need attention within the organisations? Will continued cooperation be beneficial and is there a need of future projects within this area?

4 Findings

4.1. RELEVANCE

The project is seen as highly relevant as it meets the needs of the beneficiary countries to develop an NSDI. This view was unanimously expressed in evaluation feedback from Skype interviews, evaluation questionnaires and field visits. The objective of having an EU INSPIRE Directive compliant NSDI has a particular political resonance since this is a prerequisite for EU membership, a goal which is actively being pursued by all six beneficiary countries. The evaluation learnt, for example, that the IMPULS project is specifically mentioned in EU membership negotiation documents for countries that are further down the road to accession. The move towards NSDI is also in line with other EU requirements related to Open Data and the Digital Single Market as embodied in the EU Public Sector Information (PSI) Directive.

The national commitment to NSDI can be seen by the development of laws and coordination structures across the region beneficiary countries are at varying stages of development but the overall rate of progression is over 80 percent according to the project's own assessment (see Graph 1). While the value of national data sharing is understood by the BOs, it is not always fully appreciated by other national stakeholders (as will be discussed in the next section). Nonetheless, the political interest in EU membership is widely accepted and as such the project benefits from the fact that its goal of NSDI promotion is intrinsically linked to EU accession. Whether EU membership becomes a reality for these countries or continues to be a political objective, the desirability of an NSDI to enable the sharing of geospatial data is increasingly becoming a global objective through initiatives such as the United Nations Global Geospatial Data Information Management system (UN-GGIM), the World Bank Geospatial Information Framework, the NATO Geospatial Information Framework and others.

These initiatives share much of the same standard-setting as the EU INSPIRE Directive and as such the beneficiary countries, with the assistance of the IMPULS project, have been moving in a direction that is in line with global trends and potentially benefitted from an early entry into this field as compared to other transition economies around the world. Also irrespective of EU membership, the sharing of geospatial data is important for efficient policy making as it saves on the duplication and costs of multiple government bodies producing the same data and aids coordination on multi-agency issues, for instance, disaster response. Cost-benefit analyses were part of the project's activities as will be discussed in the section on 'Effectiveness'.

While the sharing of geospatial data is generally seen as positive, security concerns, questions of privacy and data protection, and political resistance to sharing data openly should not be underestimated. The tensions between such competing aspirations were discussed at a 2016 INSPIRE conference workshop” privacy protection and open the INSPIRE data: clash of the titans or making two worlds meet?” In addition, there are policy debates about whether the ambitious standards of NSDI set by the EU INSPIRE Directive are realistic and achievable with few EU Member States themselves, including Sweden, being in full compliance. The challenges of implementation are recognised at EU level and a fitness for purpose review was carried out in 2016 which recognises the need for closing significant implementation gaps and particularly issues regarding the data policy provisions and the requirements and use of some of the technical specifications.

Insofar as IMPULS is concerned, some argue that the objective of the project to help beneficiary countries develop a NSDI in line with the EU INSPIRE Directive is unrealistic given the need to ensure that the fundamentals of geo-spatial data management are in place first e.g. property registers, address systems and good quality cartographic maps. The evaluation heard of very practical problems with address registers in the region, for example, address systems that only register the numbers of buildings and not individual apartments within buildings, or complex decentralised systems of address keeping managed at municipal level which makes reform difficult.

The focus of the EU INSPIRE Directive on regional data sharing is thus a high ambition for countries where national data production and dissemination is still very much a work in progress. Nevertheless the Directive provides a useful overall umbrella which covers basic matters including detailed technical guidance on essential land management requirements through to the loftier goals of data harmonisation and sharing across borders. It is therefore both broad enough to provide an aspirational goal and specific enough to be relevant to local needs. The design of the IMPULS project gave sufficient room for adaptation to country level requirements with BOs able to choose their own priorities for workshops and technical support. In addition, the project identified four common datasets for priority in all countries necessary for the purpose of crisis management, a logical and sensible priority. The first datasets selected for development were also under the control of the BOs which also helped them to progress without being dependent on the cooperation of other national stakeholders.

The IMPULS project also fits very well with the priorities of Sida and the Swedish government as a whole. It fits with Sweden’s strategic focus on supporting the development of more efficient public administration and the delivery of high quality public services in transitional economies based on a respect the rule of law, democracy, good governance and human rights. The IMPULS project goes hand in hand with other initiatives which regard efficient land administration, a cornerstone of

NSDI, as a necessity for a stable and healthy economy where land values are transparently registered so that corruption is reduced and investment is facilitated. The project promotes transparency and trust in public institutions and thereby economic development in accordance with the “Results Strategy for Sweden’s Reform Cooperation with Eastern Europe, the Western Balkans and Turkey 2014 to 2020”. The project also builds on Sweden’s historical expertise in land administration dating back to the sixteenth century and now embodied by the project’s lead implementing agency, Lantmäteriet. For these reasons, the IMPULS project is a very good and optimal marriage between the needs and interests of both the beneficiary and donor organisations.

4.2.EFFECTIVENESS

The evaluation assesses effectiveness by analysing the key outcomes of the project, namely what difference was made as a result of the project’s activities. The project itself used various monitoring frameworks over time which differing measures. An outcome mapping process was adopted at the start with three outcome statements backed up by several progress indicators. Later on, the project also adopted a detailed framework for monitoring progress towards an NSDI based on self-assessment by the BOs. The project’s monitoring frameworks do not adequately capture the project’s results: the outcome mapping statements and markers are vague and imprecise; whereas the NSDI monitoring targets are high national level indicators which do not indicate the contribution of the project. These matters are discussed in further detail in the ‘Efficiency’ section.

The evaluation uses the project’s outcome mapping framework as an overall basis of reporting, despite its limitations, as creating a new reporting framework solely for the purpose of the evaluation would add further layers. The evaluation captures the essence of each outcome statement rather than focusing on the specifics and then validates the project’s assessment of progress (Table 3) against its own findings. The evaluation also refers to overall NSDI monitoring (Graph 1 and Annex 6). The evaluation particularly seeks to isolate the contribution of the project to outcomes based on an exploration of attribution during in-depth discussions with interviewees.

Outcome Statement 1

Beneficiary Organisations understand how they contribute to an efficient SDI and have a clear view of the different SDI roles (user, producer and coordinator) and there are mutual respects between agencies having these roles throughout the region.

This outcome statement captures the idea of **increased understanding of SDI among BOs**. The project carried out over 120 activities and events such as workshops, remote and onsite technical support, online training, and ongoing mentoring and support aimed at increasing the knowledge and understanding of BOs. The document list in Annex 4 is in effect largely a list of the project’s activities. The project has also produced a book as a final product which documents the experience

of the IMPULS project and provides guidance on establishing NSDIs as a lasting aid to capacity building.

There is unanimous agreement that this outcome has been met according to Skype interviews, questionnaire responses and field visits with BOs. BO staff capacity was built on a wide range of complex technical issues initially through regional workshops in the first two years on the coordination role, standardisation of geo-spatial information, metadata, legal framework, services, data sharing and then moving on to national workshops and practical exercises involving the harmonisation of spatial data sets (four datasets namely Administrative Units; Orthoimagery; Geographic Names; Elevation); the creation of meta data and services and dissemination through the national geo-portal.

The IMPULS project is seen as having helped BOs navigate their way around a very complex EU Directive, develop priorities and benefit from the experience of the Swedish and Croatian partners. Capacity was built to the extent that BOs were able to take the lead in organising national workshops including sometimes exchanging experts from fellow BOs in the region rather than calling on help from outside. This was in line with the phasing of the project which planned a reduced reliance on Swedish and Croatian expertise as time went on. In addition, the project is also credited with bringing about a shift in mindset and an understanding of the INSPIRE vision that SDI is about cooperation, coordination and sharing data rather than merely being a technical issue, that it requires a decentralised approach where the BOs coordinate and support other stakeholders to produce and share data rather than seeking to centralise and produce data themselves.

Donors of other NSDI-related projects in the region confirmed that the project had given the BOs an all-round grounding in NSDI which then provided a sound basis for their own more specific implementation activities. While other projects also contributed to the outcome of increased BO capacity on NSDI, the IMPULS project, as the foundational NSDI project in the region, can be credited with playing a leading role in strengthening NSDI capacity overall. The project also built capacity in other ways, for instance, staff from BOs said they learnt about project management, documentation and record-keeping through their involvement in the IMPULS project.

The project's final outcome mapping process (Table 3) concludes that its progress markers of 'raised knowledge and awareness on SDI among BOs' and 'BOs are actively participating in the project' as "achieved". However, no specific indicators are used to substantiate progress. These outcomes could have been measured by, for example, data showing the number of events held, people trained, participant feedback on the quality of events held, participant reports of changes in knowledge, attitude or behaviour etc. The project produced a report for each activity which described the event and included a list of participants. However, it did not synthesise this data in a cumulative form its semi-annual reporting, nor did it go further and

collect quantitative and qualitative data on its outputs or outcomes through pre and post event surveys.

Outcome Statement 2

Beneficiary Organisations are using data from other sources, both national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.

This outcome statement captures the idea of **increased production, use and provision of data by BOs in accordance with SDI requirements**. This is a very wide-ranging and highly technical area covering many different components of NSDI. The project input into this area involved funding technical workshops, the hiring of local trainees and other technical support which allowed for specific activities on the harmonisation of datasets, the creation of meta data and catalogues, IT platforms and geo-portals, cartographic and mapping projects, communications and awareness-raising, and assistance to other producers to help them align their data with the requirements of the INSPIRE Directive.

The overall consensus from the project's own monitoring as well as evaluation feedback is that some progress has been made on reaching NSDI targets relating to metadata, catalogue services and harmonisation but work remains at the technical level in order to facilitate the dissemination of data both within countries and across borders. The project's outcome mapping process concludes that all the progress markers in terms of metadata, use of common/standardised conditions, and harmonised datasets under this outcome statement are "in progress" (Table 3). The project focused on four datasets within the control of BOs to start with (Administrative Units; Elevation; Geographic Names; and Orthoimagery).

In respect of these, all BOs harmonised these datasets and some were able to go further by developing metadata, view and download services. Some BOs also progressed to working with external stakeholders on their datasets concerning on an additional four datasets (Transport Networks; Hydrography; Population Distribution and Demography; and Geology) and reaching various stages in terms of harmonisation, metadata, view and download services. The project monitoring of progress towards achieving NSDI targets overall (Graph 1) likewise finds that progress has been made as compared to the baseline but work needs to continue in the areas of metadata, search, view, digital data availability, data viewing with download particularly lagging behind.

The same picture emerged during field visits in evaluation interviews with staff and external stakeholders alike. Much effort has been made but the complexity of the tasks involved and the difficulty in reporting any finality to these activities came across during evaluation meetings. For instance, the project reports that several datasets have been harmonised (Table 3) but this does not mean that the work is over

as the datasets require a process of regular updates in addition to the indicator of harmonisation comprising various elements which have been completed to different degrees by different BOs (Table 3). Even in countries where NSDI targets are 100 percent met according to the project's spider graphs (Annex 6), for instance for national metadata, this does not necessarily mean that all datasets in the country are covered.

Staff and external stakeholders often reported that even with data that was on national geo-portals, limitations remained in terms of quality and functionality for various reasons e.g. software issues relating to the type of geo-portal and its ability to support complex functions; prohibitions in law limiting the sharing of data in full; incomplete datasets in particular theme areas due to the unwillingness of some national data producers to share the data; lack of agreed approaches to payments for data access; lack of capacity, funds, software and hardware needed to make data compliant with the INSPIRE Directive; non-availability of certain types of software in local languages and so on. It appears that the manual hard copy exchange of data continues to take place alongside access via portals even amongst some of the most engaged external stakeholders. While the BOs have worked on eight datasets to varying degrees, it's worth noting that the INSPIRE Directive requires conformity by many more as it covers 34 data themes (each with multiple datasets).

Overall there is an acknowledgement from project participants that the IMPULS project provided training on technical issues and enabled some concrete activities for producing and using data in accordance with NSDI requirements, but the scope of the task in hand as compared to the available budget inevitably means this is an ongoing activity and much remains to be done but with varying levels of progress in each country as shown in Annex 6. As noted in the 'Relevance' section, implementation of NSDI technical requirements is a challenge even for higher income EU Member States as well.

In terms of attribution, the IMPULS project is regarded as having contributed to these technical areas through its training events and funding of local trainee positions alongside funding and support from others namely the BOs themselves and other actors and projects. For example, IMPULS provided training on metadata catalogues and then staff funded by BOs and/or the project (local trainees) applied this learning to their own datasets or assisted other national stakeholders with their datasets; IMPULS helped BOs with the methodology, registers and awareness-raising on the issue of subject identification and then national stakeholders invested in identifying and agreeing the datasets; IMPULS provided training on preparing data (harmonisation, metadata etc.) which was then uploaded on geo-portals funded by other donors such as the Norwegian and Dutch cadastres or the World Bank. The project's monitoring framework does not tease out the project's contribution to overarching goals. For instance, the project's 2017 road trip monitoring shows that some countries are 100 percent compliant in terms of having a national portal in place but this doesn't clarify that in some cases, the portal existed before the project started.

The project helped increase the availability of data in line with NSDI requirements but it is difficult to quantify by how much: had the project tracked its investment in workshops and local trainees through to activities on specific datasets, this might have given a clearer sense of the project's contribution to this outcome. It's worth bearing in mind though that the project's funds for implementation were relatively modest, for instance, 20,000 SEK (approx. EUR 2000) per month available for the hiring of trainees which was used by the BOs to hire between 2 to 5 trainees depending on local market rates, as such expectations of outcomes related to the project's inputs need to be proportionate.

Outcome Statement 3

Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

This outcome statement captures the idea of the **promotion of NSDI at national and regional levels**. Activities included national workshops and technical support to other stakeholders and regional forums for sharing information and experiences, for instance, by printing flyers for dissemination among stakeholders. The project's outcome mapping process (Table 3) concludes the indicators for this in terms of pilot use case, the establishment of formal ways of sharing experience both at national and regional level and the participation of BOs in national forums is "in progress". The project's monitoring of NSDI targets (Graph 1) shows substantial progress with legal framework and NSDI coordination, some level of data sharing at national level but no progress at regional level data sharing. The evaluation identifies various ways in which the project has supported the promotion of NSDIs in the region.

Legal framework and Coordination

The legal and coordination framework at national level is a necessary step in being able to share data nationally and regionally. The project has supported this area and drawn on expertise both from Sweden and Croatia and also among the BOs themselves. The degree to which the project has contributed varies, for instance, in some countries the legal and coordination framework already existed prior to project start-up, in others these were established during the life of the project, and in some these structures are yet to be solidified.

The project's NSDI monitoring framework (Graph 1) shows an over 80 percent compliance with this target but this does not identify the specific role of the project. This is an area where the project was able to provide ready expertise but where the outcome was very much dependent on other actors. For example, in one country, the BO led the way in initiating a law; the project funded workshops to help raise

awareness and buy-in for a national law and provided practical advice and examples from other countries; other international actors also contributed advice and support; and the law was passed due to the actions of national stakeholders. In another example, the coordination structure, which existed in theory before the project began, was operationalised through project funding for staff and activities aimed at raising awareness and technical capacity.

National data sharing

The project laid the basis for data sharing by increasing awareness among national stakeholders according to evaluation interviews with both internal and external parties. The project played an important role through its workshops in bringing national stakeholders together and raising general awareness. The involvement of Lantmäteriet helped convince national stakeholders of the importance of NSDI particularly by sharing the benefits of the Swedish experience in implementing the INSPIRE Directive. BOs were helped to advocate for the issue, make political leaders aware and acquire more national resources.

The project also laid the ground work for national data sharing through activities aimed at identifying national institutions responsible for producing or using geo-spatial data and through practical workshops which built the capacity of national stakeholders. External interviewees confirmed that the project helped them learn things which they needed to know for other reasons (e.g. other European level geographical activities) but which they had found too complex to learn for themselves.

The evaluation team met external stakeholders who were trained by the project in meta data creation or digitising maps and felt fully equipped to apply this knowledge to their own datasets thereafter. Some BOs also provided practical support via the local trainees to external stakeholders to help them harmonise their datasets and create meta data profiles. However, the more common feedback from external producers and BOs alike was the lack of capacity and know-how and the need for more practical support to help national agencies align their data with NSDI requirements. On the user side, the evaluation heard that external stakeholders valued the access to data needed through the geo-portal but usage and application to their own projects was still a work in progress.

In terms of attribution, external stakeholders were not always aware of the project by name and there were other projects conducting workshops on NSDI around the same time. The evaluation received occasional feedback from external parties that the NSDI workshops were not always practical or relevant or repetitious; while it is not possible to link all of these comments to the IMPULS project, it is clear that some did relate to the IMPULS project as similar comments were sometimes fed back through BO staff.

National data sharing agreements are in progress; most countries have provisions for national data sharing between governmental authorities in the country (Table 3), although there are only one BO that has an NSDI data sharing model on top of the law, signed by the stakeholders which enables a joint model of data sharing rather than traditional bilateral agreements. four BOs report having draft data sharing models according to the project's outcome mapping (Table 3). The evaluation found that conventional processes of data sharing through request and approval procedures, onsite applications, and manual exchange of hard copies is still rather common as opposed to access via a decentralised model of open source internet-based information based on NSDI principles. While the BOs are now equipped to produce and harmonise their own data in line with INSPIRE Directive, other stakeholders in country still lack the capacity, resources or legal ability to do so which inevitably is an inhibitor to data-sharing.

The project aimed to check if the data prepared was in compliance with INSPIRE through a test pilot case. This pilot (work package 6) was meant to test how well targets were reached in terms of harmonisation, metadata etc. The result of this work package was limited to a “proof of concept” for data sharing at one of the project meetings in which the four main datasets selected were retrieved from each BO using Internet services and displayed in a GIS software (simulating an emergency system). The aim was for a second phase in which harmonised data from other stakeholders would also be integrated. However, due to constraints in reaching out to external stakeholders and in encouraging and supporting them to harmonise and set up services for their data, the second phase did not materialise. As a substitute for the test, the project had discussions with the IPA-DRAM project to use the services developed, as they were looking for this type of data for their project but unfortunately the timeframes of both projects did not coincide sufficiently to enable this to happen.

Regional data sharing

Regional data sharing as envisaged by INSPIRE is not yet happening as shown by the project's monitoring data (Graph 1). However, BOs and international actors were keen to emphasise the importance of regional cooperation even if it falls short of sharing data. The forum provided by the project to build social relations was seen as very valuable both from the point of view of developing technical networks to share knowledge but also as a means of building trust between the countries given their history of conflict but also the bonds of language, culture and historical roots. At a technical level, a real potential for data harmonisation and sharing exists since all countries were part of the former Yugoslavia and have similar datasets, methodologies and standards. It also worth noting that there are also cooperation arrangements with other neighbouring countries such as Bulgaria, Croatia, Slovenia and Turkey.

The cooperation between agencies responsible for cadastre and land surveys in the western Balkans dates back to 2008 and precedes the IMPULS project and involved

annual regional conferences hosted in rotation by each country. The BOs applied for the INSPIRATION project which was funded by the EU and thereafter they conceived the need for the IMPULS project and obtained funding from SIDA. The project therefore did not initiate this regional cooperation but provided a forum for it to be realised. The IMPULS project financially supported regional cadastral and NSDI studies, participation in annual regional conferences and regular regional project meetings. The steering committee meetings were usually well attended though the October 2018 meeting notes that only three DGs attended remarking that this did not bode well for future cooperation.

The strengthening of regional cooperation on NSDI can be attributed to the project alongside the will and commitment of the BOs themselves since the other internationally funded projects in the regional are mostly bilateral. The IMPULS project enabled participation at different levels. The NCs met regularly four times a year. There were steering committee meetings of DGs, this was recognised as valuable for shoring up commitment to the project and NSDI and also enabled side discussions on other common issues. These were generally well-attended though sometimes concerns were expressed about absences and the impact of this on future cooperation, for instance October 2018 Steering Committee meeting. Coordination at technical level involving technical staff and trainees between countries could have been stronger. Those hired early on and participating in regional workshops did have the opportunity for regional exchange but those who were hired later said they missed this connection due to a lack of joint meetings or other ways to link up and ask each other questions e.g. online forums etc.

The obstacles to regional data sharing include political and legislative restrictions on the dissemination of data as well as the practical reality that countries are at different levels or have adopted different technical approaches (e.g. age matching techniques, vectors or projections) and do not have compatible data ready to share. There was common agreement that increased regional cooperation was an important outcome as it enabled opportunities for exchange and learning from others but that it was hard to show tangible results or to identify suitable concrete joint activities.

Examples of tangible outputs which were achieved include: a regional meta data profile though follow-up monitoring and sharing on implementation was said to be lacking; the signature of the second regional agreement known as the “Memorandum of Understanding and Cooperation in the Field of Cadastre, Topographic Survey and Cartography, Geodetic Networks and Spatial Data Infrastructure” by the BOs on 5 September 2019; harmonised data, services and agreement in how to handle different project systems; and also support to regional conferences. This aims at a higher level of coordination, similar to that adopted by the Nordic countries, and work on concrete actions e.g. regional network for communication and separate working groups. This will enable BOs to continue to work together after IMPULS ends.

Conclusion

The overall consensus from all interviewees is that the project was effective but that there is still a considerable way to go in terms of a full-functioning NSDI. This was a very large and complex project comprising 11 organisations (including six BOs), six beneficiary countries and an intensive schedule of activities. Progress thus far according to the project's own monitoring (Graph 1) shows most progress in terms of legal framework and coordination structure, data viewing and digital data availability and weakest areas as download data, and data sharing both at national and regional levels. The project has laid the foundation and helped BOs navigate their way around the implementation of the very complex and ambitious INSPIRE Directive. The project has done the ground work by building capacity on all aspects of an NSDI and providing some initial support for implementation activities. Implementation needs to drive further and is already being done to some extent through BO's own resources and other donor projects.

The targets set by the project itself through the outcome mapping and NSDI monitoring frameworks are not fully achieved but it is questionable whether these targets were realistic in the first place and do sufficient credit to the achievements of the project in strengthening the foundation of an NSDI across the region. Attribution of changes to the IMPULS project are difficult to dissect for various reasons: (1) there are unquantified contributions from the BOs themselves since the time of BO staff (NC and others) is not expressly counted in the budget; (2) the design of the project was phased in such a way that there was greater input from the Swedish and Croatian partners for the first two years and then the BOs increasingly took over; (3) inputs of other projects and donors need to be factored in; frequently during evaluation interviews, external stakeholders were unable to identify the IMPULS project as such, they were simply aware that they had participated in NSDI activities; (4) there are other actors and resources in beneficiary countries being deployed to NSDI; in some cases legal and coordination frameworks were in place before the project started and occasionally the evaluation encountered local stakeholders had already progressed on the technical side for other reasons irrespective of the project.

Nonetheless, there are outcomes in line with the project's original intentions. The project has made an important contribution to NSDI across the region, by facilitating the sharing of data which remains a delicate political issue at different levels. The project's own outcome statements set an ambitious bar. The key gap appears to be between training/knowledge and implementation which could have been filled by better planning for implementation activities in the design, investment for concrete activities or coordination with other donors funding practical work.

Challenges in data sharing at national and regional level remain manifold. Despite awareness-raising efforts, there is still resistance and apathy among some national stakeholders about the relevance of NSDI with awareness-raising needed both to target high level decision-makers and the public more broadly. The cost-benefit case for NSDI is a question across Europe and was discussed at the INSPIRE conference

in 2016 which recognised that the funding required is considerable and this needs to be set off against the impact of SDI on the overall development of society. The case for SDI needs to be made especially for lower income countries which face competing demands on their limited resources. The project produced some cost benefit models based on the value of standardised metadata in an easy-to-find national geoportal indicated by assuming how much time each stakeholder saves in average per organisation and year not having to search and find data and services needed for a particular application. However, such models do not capture the deeper economic benefits of NSDI so some BOs are pursuing different approaches.

Other challenges include the lack of capacity in external organisations coupled with high levels of staff turnover both in external bodies and in the BOs themselves which means a constant need to repeat the same information. There is inadequate financial resource, human resource capacity, and technical infrastructure in terms of software and hardware. There remains political sensitivity about data sharing, as well as ongoing political tensions in the region, for instance between Kosovo¹¹ and Serbia. Language is also a constraint; the working language of the project was English, while this worked remarkably well among the main BO participants, it was an inhibitor for technicians and external parties and there were technical challenges as the software was not always in the local language. Legal barriers remain; while main law has been passed in all but one country, there are still by-laws which need to be changed and processes of validation and authorisation before geo-spatial data can be published. Realistically the establishment of an NSDI requires medium to long term planning of 10 years or so. The IMPULS project has helped set the beneficiary countries on this path but further work remains.

11 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

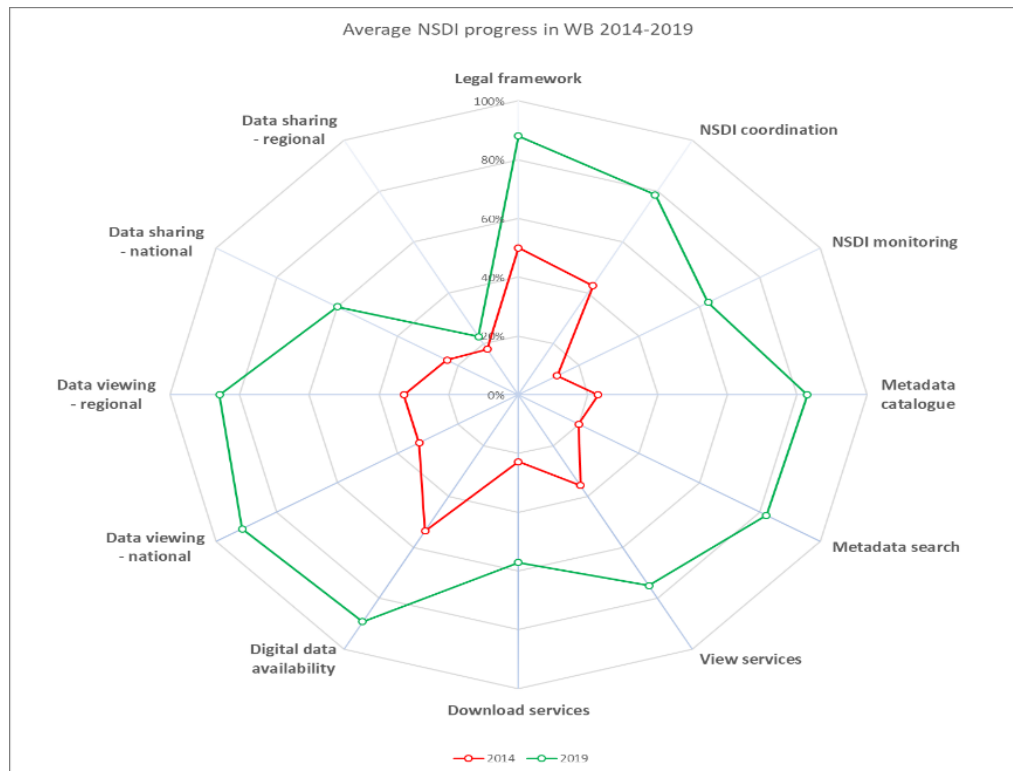
Table 3 Project status against outcome mapping indicators

Outcome Statement 1: Beneficiary Organisations understand how they contribute to an efficient SDI and have a clear view of the different SDI roles (user, producer and coordinator) and there are mutual respects between agencies having these roles throughout the region.	
Progress Marker	Status and indicators
Knowledge, progress and awareness in SDI are raised within each beneficiary organisation	Achieved at this stage – further progress need to be monitored. <u>Indicators</u> <u>No specific indicators.</u>
Regional data sharing agreement jointly developed by the beneficiaries and signed for the region	Achieved. <u>Indicators</u> The regional agreement is jointly developed but due to the constraints in the regulations it is signed by 7 BO (out of 8) and SGA. Revised Regional MOU is prepared and approved.
Each Beneficiary organisations is actively participating in the project (at events and work at home) and fully contributing to the project	Achieved at this stage – need to be monitored in the future. <u>Indicators</u> All BO are actively involved in the project.
Data sharing model proposed for each country (except Montenegro)	5 BO (AREC, ASIG, RGA, FGA, KCA) have developed draft data sharing models.
Outcome Statement 2: Beneficiary Organisations are using data from other sources, both national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.	
Progress Marker	Status and indicators
Metadata for defined data is found in national geoportals	In progress. <u>Indicators</u> 1) Technical guideline for regional metadata profile version 1.0 is developed. 2) Number of BO that developed Metadata for data, view and download services for: AU: 6; EL: 5; GN: 5; OI: 4 TR: 1; HY: 3; PD: 2; GE: 2 3) All BO have catalogue services up and running
Beneficiary organisations and other stakeholders are sharing data instead of duplicating data	In progress. BO are not in the same stage of achievement of this marker. <u>Indicators</u> 5 BO (AREC, ASIG, RGA, FGA, KCA) have developed draft data sharing models.
Beneficiary organisations are using common/standardised conditions for use of geodata that makes it easier for users to use data from different sources	In progress. <u>Indicators</u> 1) The common terms for geodata usage are under development. 2) Four BO have NSDI agreements with stakeholders. 3) All BO have catalogue services up and running (for REA only as test)

Harmonised data sets found through geoportal services (view and download in accordance with Inspire)	In progress. Indicators 1) All BO harmonized AU, EL, GN and OI data sets, 2) Number of BO that harmonized TR: 2; HY: 5; PD: 3; GE: 5 3) Number of BO that developed view services for: AU: 7; EL: 7; GN: 6; OI: 6; TR: 2; HY:5; PD: 3; GE: 3 4) Number of BO that developed download services for*: AU: 7; EL: 6; GN: 5; OI: 5; TR: 2; HY: 3; PD: 3; GE: 2 *Note: for RGA download services are not publicly available
Outcome Statement 3: Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.	
Progress Marker	Status and indicators
A pilot (use case) is undertaken at regional level that helps to show the benefits of SDI	In progress. Indicators The result of the use case for risk management is presented in October 2016 in Durres. Second phase of the use case (transport, hydrography, and population data) is in progress.
Beneficiary organisations have established formal ways of sharing experience, information and knowledge with other organisations (user and producers of data) in the area of SDI and Inspire regionally	In progress. Beneficiary organisations are not in the same stage of achievement of this marker. Indicators 1) National WS's have been organized by all BO. 2) Regional data sharing agreement is signed by 7 BO and SGA (2014) 3) Revised Regional MOU on SDI is developed and signed by the DG's 4) Regional network is agreed
Beneficiary organisations are actively participating in operational national SDI-forums (e.g. council, working groups, annual reports) sharing experience, information and knowledge	In progress. BO are not in the same stage of achievement of this marker. Indicators 1) 6 BO's are national coordinators out of 5 with developed functional structure for coordination. 2) 6 BO's actively organizing WS's and working on SDI awareness raising 3) Monitoring tool is agreed 4) SDI Monitoring list is prepared by all BO's. 2 BO's also use the list to monitor NSDI progress

Source: IMPULS project

Graph 1 Graph showing overall NSDI progress 2014-19



4.3. EFFICIENCY

Efficiency is discussed in broader terms going beyond cost effectiveness to cover wider management issues. Feedback is mainly from project participants rather than external stakeholders who are not familiar enough with the project to comment. This section summarises common issues coming up in questionnaires, Skype interviews and field visits.

Capacity building support

This was a twinning project designed on the premise that capacity building support would be provided by civil servants from Lantmäteriet and SGA through a mentoring relationship with BOs. It involved leading workshops, technical support provided remotely and through field visits, ongoing advice through Skype calls and email, supervision of online training through Linkvit and the INSPIRE training library, sharing of learning material through the online system Antura, and kick off get to know you events to help foster networks and relationships.

The partnership between Swedish and Croatian organisations for delivery of expertise was considered very appropriate by BOs as it provided an opportunity to learn from organisations at different levels, one more advanced in the form of Lantmäteriet and the other, more of a peer organisation in SGA which had recently become a EU member and INSPIRE compliant. The benefit of having SGA involved meant having

a shared history, culture and language with the BOs. Lantmäteriet was able to bring its experience of the Nordic NSDI partnership as a model for replication in the region.

The twinning approach to capacity building was appreciated by BOs as it provided scope for an ongoing relationship and the opportunity to learn from civil servants working in organisations with a similar role and thus able to operate from a position of mutual understanding and cooperation. The approach meant that BOs were not delivered a result but rather supported to achieve the result themselves. There were sometimes challenges in this model as BOs found that Lantmäteriet/SGA were not always able to provide type of support needed, nor when it was needed. The quality of the support provided by Lantmäteriet/SGA was generally much appreciated but there were sometimes concerns about inadequate detail or the repetition of material at particular events. While many of the workshops had a practical component with hands-on training, there was a desire among BOs for even more practical experience followed by technical support to implement what had been learnt in order to bring geo-spatial data into line with requirements.

There appear to have been various reasons why this situation arose including timing issues with insufficient notice given to Lantmäteriet/SGA by BOs, the range and diversity of needs in the region, and multiple requests coming at the same time. This coupled with the lack of internal capacity within Lantmäteriet/SGA to meet these needs due to other staffing commitments or because some kinds of expertise particularly on the technical side were harder to find inhouse, or because types of support requested (e.g. capital investment), were not part of the project design alongside restrictions in the agreement with SIDA which limited the ability to outsource supplemental work to private companies meant that requests could not always be fulfilled in a timely way. This gap in practical support was partially addressed by the recruitment of local trainees but demand tended to outstrip supply. Suggestions as to how this issue could have been addressed include: better planning by all sides to avoid last minute requests, greater flexibility to hire in private consultants as needed, and better coordination with other donor projects to see if they can meet the needs for follow-up. It's also worth noting that both Lantmäteriet and the BOs experienced a very high level of staff turnover during the course of the project with changes in the project management teams and at director-general level which presented challenges especially in such a specialised technically complex subject area.

Coordination with other initiatives

There was regular coordination with other projects at project management and BO level. The semi-annual reports refer to joint workshops with Best SDI (Western Balkan Academic Education Evolution and Professional's Sustainable Training for SDI) funded by the EU Erasmus and collaboration with Eurogeographics European Location Service (ELS). Cooperation with CILAP, another SIDA funded capacity building project for the improvement of land administration and procedures in BiH included joint activities. The IPA-Disaster Risk Assessment and Mapping (IPA-

DRAM) project included participation in each other's regional meetings and the involvement of NCs in national events.

Coordination at the level of donors/lead implementers was lacking until a recent meeting between international funders and surveying authorities which took place in September 2019 in Neum during the regional conference on Cadastre and SDI. This meeting was attended by the surveying authorities of Sweden, Norway, Netherlands as well as Japan International Cooperation Agency (JICA), Eurogeographics and UNGGIM and has resulted in a commitment to continued coordination including annual meetings and a register of projects in the region maintained in the form on an Excel document. Donors and implementation leads spoken to by the evaluation recognised this was a gap and something all needed to address collectively. The Nordic NSDI group meets regularly for national implementation in Nordic countries but the international departments have limited interaction save for a few bilateral agreements e.g. Lantmäteriet has agreements with surveying authorities in Norway and Finland. Nor is it clear to the evaluation that there is adequate coordination among Swedish projects across different Swedish government agencies and ministries, or even between Sida projects covering the similar issues.

The consequence of this lack of coordination means that some opportunities may have been missed. For example, some donors/surveying authorities such as the Norwegian and Dutch cadastres were involved in funding more practical interventions and capital investments in the same countries which could have synergised well with the IMPULS higher level training if there had been joint planning. In some cases, BOs were themselves able to foster these links and, for example, use funds from other donors or loan money to follow-up and implement training received from IMPULS by investments in hardware. Such instances happened on an ad hoc basis and it was not always feasible to tie in with other projects due to lack of pre-planning. Part of the explanation may be the lack of clarity between Lantmäteriet and Sida as to who was responsible for coordinating with donors with Lantmäteriet identifying itself as an implementation agency and SIDA seemingly not involved in the same forums.

The project made efforts to publicise itself, for instance, through presentations at INSPIRE and other conferences and through a web page on the Lantmäteriet website. However, there was still a sense that it could have been more widely known through stronger marketing. For instance, respondents said it did not easily come up in internet searches and could only be found if people were looking for it and then the webpage did not include much information. As such, projects on NSDI-related subjects which were set up after IMPULS did not always become aware of it at an early enough stage to influence their own design and set up.

Design

The inception phase of the project involved field visits by Lantmäteriet for discussions with BOs to identify needs and to firm up the design of the project.

Considering some of the challenges faced in implementation, it appears that the scale and complexity of the task in hand was underestimated and the capability of BOs overestimated particularly in terms of existing technical capacity. The project appears to have been based on the assumption that the BOs already had competencies in terms of services and providing data to third parties in a standardised way so that the project could help bring them in line with EU INSPIRE requirements whereas in actual fact the BOs needed more basic IT/technical support to establish services in the first place. Likewise there was a difference in understanding about dissemination, with some BOs understanding this to mean having a geo-portal with a GIS map view whereas the INSPIRE vision is about a decentralised model with other national stakeholders inputting into a national meta data catalogue. A more structured process of needs assessment may have led to a clearer understanding of BO needs and a more realistic definition of targets.

Other improvements to the design which may have helped implementation include: sequencing of the work packages as all started in parallel which created an intense and simultaneous demand for technical support on a wide range of areas whereas some work packages naturally followed after others. This would have helped ease the workload on all sides. The issue of inadequate technical support for implementation following trainings may have been addressed by factoring in more possibility of technical advice or capital investment either through the project itself or in coordination with other donors funding such work. It would also have been helpful to have a project manager able to carry out onsite supervision more regularly particularly at the start but this proved unfeasible due to the difficulties in travelling around the region and due to turnover in the project manager role in Lantmäteriet.

The project was very participatory with project meetings held four times a year so that Lantmäteriet, SGA and the BOs could discuss and agree activities, work plans, budgets, outcomes etc. The project showed flexibility and the design was adjusted as time went on. For instance, the original plan of regional workshops was changed to national workshops after two years; the initial idea of having regional WP coordinators was dropped as countries were at different levels and the main coordination went through NCs; the initial division of work into four main technical areas (WP 2 to 5) was redesigned after April 2017 by a merger into one package known as WP 26 covering coordination, discovery, harmonisation, services, agreements and legal framework; the project had to adjust to a 20 percent budget cut from SIDA in 2016 due to a redistribution of funds to the European refugee crisis; also the project was granted a one year no-cost extension in 2018.

M&E system

The project had a systematic monitoring framework comprised of monthly updates from each BO, four annual meetings, and two semi-annual reports. Lantmäteriet experts also carried out a road trip to all countries to review progress in 2016 and 2017. These activities resulted in consistent reports which captured the project's activities and progress against the ultimate goal of establishing establishment of an

NSDI. However, the monitoring system did not adequately capture the in-between steps in terms of the project's contribution to overall national NSDI targets, nor the quality of the project's work itself.

The project seems to have struggled to establish a workable monitoring system as different approaches were tried over time. An outcome mapping approach was adopted in the inception phase following an outcome mapping workshop as one of the first activities for the project. The workshop gave a comprehensive training on M&E pointing out the challenges of measuring outcomes which were not fully in the control of the project and suggested various data collection tools such as pre and post intervention surveys and training evaluations to aid its work. Outcome mapping was an appropriate methodology for a capacity building programme but the wording of the three outcome statements was imprecise, comprising multiple and unrealistic objectives. The progress markers which were developed were also inadequate for capturing the results of the project as shown by the discussion in the 'Effectiveness' section. The project had further specialist M&E training in 2018 developing a "goal and benefit map" in January 2018 and revised again in January 2019 to build on the Outcome Mapping framework.

Part way through the project in 2016, the monitoring system was enhanced by establishing a framework for reporting against overall progress towards establishing an NSDI (see Annex 6). This involved a series of targets and indicators related to high level NSDI goals. Reporting against this was done through self-assessment by the BOs on a regular basis and Lantmäteriet during the mid-term road trips. The targets were changed a number of times and measurements are subjective despite the fact that detailed indicators have been developed (Annex 6). As noted in the project records for the 9th NC meeting in 2017, project participants recognised the complexity of measurement and agreed to use approximate percentages (broken down into 25, 50, 75, 100) to gauge progress which makes for a degree of imprecision.

The overall NSDI monitoring is a valuable exercise which will help beneficiary countries ascertain their progress and stand them in good stead for reporting to the EU as part of accession negotiations or subsequently if they become member states and have to comply with annual EU reporting. The graphic display of the results in spider diagrams provided clear visuals of the progress being made (see Graph 1 and Annex 6). The targets changed a number of times so the comparison with the baseline is not precise. The assessment is also partial as the indicators do not necessarily indicate full compliance at national level, for instance, even in countries which are recorded as having 100 percent compliance for the legal framework, some bylaws still need to be adopted.

The key gap in the project's monitoring system is the lack of data and tools to adequately capture the effects of the project and its contribution to national goals. The use of commonplace M&E methods would have helped record the project's achievements. For example, while outputs are listed in an activity/event sheet and

individual activities discussed in the semi-annual reports, there isn't an overview which synthesises the running total of events /by type, nor the number of participants - in fact it is hard to see from the project documentation, how many individuals benefitted from its events, the activity sheet lists over 3000 attendees at some 130 events but as this includes external conferences, this does not equal project beneficiaries – further analysis by the project in response to evaluation queries shows that there were 2850 project beneficiaries.

Questionnaires were not used at events to gauge feedback on the quality of services provided; some BOs used them according to their own practice but this was not a systematic project requirement which was reported on in the semi-annual reports. Had this been done it could have fed into improving delivery on an ongoing basis. Nor were there any knowledge, attitude or behaviour surveys to capture changes in individual capacity or behavioural changes (e.g. tracking user numbers for geo-portals) arising directly from project activities. The project's monitoring system did not recognise the concept of attribution and the need to assess the role played by the project vis-a-vis other projects and actors. Had it done so it could have better strategized to understand which factors it could have influenced and which were out of its control. A key part of the evaluation methodology involved teasing out the contribution of the project to national goals through in-depth discussions with BOs and external stakeholders. An external mid-term review might have better picked up on these issues, instead the project went for internal road trips assessments, while these were very important for the technical side, they did not alert the project to the need to strengthen its M&E system to better document its achievements.

Cost effectiveness

Prima facie, the project was value for money given the effects and impacts captured elsewhere in this report. More detail on unique beneficiary numbers and a breakdown of events would have given insights into the costs per head. The project was very carefully administered with expenditure rules clearly laid out at the outset and a management/administration visit early on in the process, detailed financial reporting and control of expenditures by Lantmäteriet to ensure transparency and value for money. There were some unanticipated expenses e.g. travel around the region was more complex than expected and inevitably as a capacity building project, fees constitute more than 30 per cent of the budget. It may have been worth considering as the project continued whether some of the face-to-face regional meetings could have been done through video-link in order to redirect funds to more practical activities.

4.4. IMPACT

The project set up a number of impact indicators at the start is as follows:

- INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area.

- Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive.
- Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions ‘Competitiveness’, ‘Effective public services’ and ‘Anti-corruption’).

The project has worked towards these indicators but these are very long term objectives which will take many years to achieve. The project has worked concretely towards the first goal of implementing INSPIRE and progress towards this is well-charted in the project’s monitoring system. While this is not fully achieved, Graph 1 shows the substantial difference made over the life of the project. The second indicator overlaps with some elements of INSPIRE so the same observation can be made, although the PSI Directive is not much mentioned in the context of the IMPULS project. The final indicator is very far reaching and there are no measures to show the link between the project and these long-term goals.

The project can show intermediate impact which help put the beneficiary countries on the right path towards meeting these longer term impacts. As the only comprehensive regional project on NSDI, evaluation interviewees both from within BOs and external stakeholders credit it with making the following significant differences:

- Changes in individuals – The workshops and trainings carried out by the project helped raise awareness and change mindsets at national level about the importance of sharing data. They also increased capacity on technical issues.
- Changes in organisations – The project helped BOs strengthen organisational capacity on this issue by increasing staff knowledge and skills and also by increasing the numbers of staff available to do this work. This in turn, along with other factors, spurred some BOs to expand their NSDI units by adding further staff and by making organisational commitments to work on NSDI in their longer-term organisational strategies. Follow-on projects have helped BOs install the necessary IT infrastructure, software and hardware to make NSDI a reality.
- Changes in society - Although impacts can’t be tracked, the increasing availability of open data through national geo-portals has increased transparency and access for citizens. The exchange of data between national authorities, despite limitations, has also facilitated greater openness and cooperation which should save costs and duplication. Most countries have functioning legal frameworks and coordination structures in place and in certain cases, the project was able to contribute to establishing these. Through

its awareness-raising activities, the project has also prompted some national stakeholders to make better use of geo-spatial and location data in their activities, for instance, in gathering census data; or to be better prepared for dealing with emergencies and natural disasters through data-sharing.

The clearest evidence of impact can be seen by comparing the baseline NSDI status with the current situation. This data is graphically captured by the project's monitoring data which gives a regional overview in Graph 1 and a country by country breakdown in Annex 6. These spider graphs show a clear difference in NSDI development in each country; a change that the IMPULS project, as the key regional project, has contributed to.

4.5.SUSTAINABILITY

There are strong prospects for sustainability of the results achieved by the project according to feedback from Skype interviews, questionnaires and field visits. The goal of NSDI is in full alignment with national goals, particularly due to the aspiration of EU membership and the accompanying legal obligations. The legal and coordination frameworks are in place for nearly all countries which will help ensure the issue retains priority and that obligations are placed on national stakeholders to play their role with the prospect that increased funds and resources are devoted to implementation.

The goal of NSDI is engrained in the BOs and integrated into long-term strategies and business plans. IMPULS is not seen as an independent project but embedded in the work of BOs. Commitments to sustaining this work were verbalised by the director-generals from the BOs at the final closing conference and in evaluation feedback. BOs deployed some of their own resources to enable the delivery of the project, for instance, NCs and other staff working on IMPULS were not paid salaries by project funds. Most also have separate units for NSDI which will continue once the project ends.

In terms of the specific human resources supported by the project in the form of local trainees, the local trainee programme was intended to help build internal human resource capacity and enabled BOs to hire local staff to work on NSDI issues, these staff were usually already qualified and some very experienced in their fields despite the title of trainee. The contract period was 30 months after which beneficiaries were expected to hire the trainees and pay them by their own means. A commitment to retain them was expressed by all BOs to the evaluation even if the finances have not yet been found. It is worth noting that some trainees hired earlier in the project life have already been absorbed as BO staff.

There is a need for further support as NSDI is an ongoing activity and in the countries of the region, more work is needed particularly on the IT side and for practical work to bring geospatial datasets in line with INSPIRE requirements. There are also

existing or emerging bilateral projects funded by other donors or funding streams which will continue work related to NSDI, for instance, projects supported by the Dutch and Netherlands Cadastres, the World Bank, and SIDA itself (e.g. projects on digital democracy or strengthening the investment environment) which may pick up on aspects of this work. There is also a will to sustain the regional relationship. The recent MOU provides the legal framework for continued collaboration and BOs have been actively seeking funding together to continue the regional component and carry out joint projects by establishing a working group on this since 2016 with ideas of follow-on projects include a Geoid in the Balkans and Knowledge Exchange regarding NSDI in support to eGovernment. There have been joint efforts to obtain grants, for instance, all BOs except KCA, alongside the Slovenian surveying and mapping authority and Norwegian Kartverket applied for EEA and Norway Grants Fund for Regional Cooperation.

4.6.CROSS-CUTTING ISSUES

Gender equality

The project made active efforts to raise the issue of gender equality throughout the process. A Gender Assessment was done during the proposal development phase by a specialised consultant who noted that the Balkans region generally has a good balance of men and women in organisations but that men tend to be in higher level managerial roles. It was agreed that gender would be mainstreamed in the IMPULS project by: safeguarding equal opportunities for men and women to participate in project activities but to do so in a meaningful way; making officials aware of gender equality and their responsibilities in respect of this; and sharing by Lantmäteriet on how Swedish public administration mainstreams gender equality.

The issue of gender equality was discussed regularly in project events and NC meetings, for instance, Lantmäteriet presented its institutional gender equality plan at a workshop in 2015; project members attended a workshop on gender and land management run by the Sida partnership forum; and BOs were invited to a conference convened by CILAP (Capacity Building for Improvement of Land Administration and Procedures in Bosnia & Herzegovina) called “The Steps of Gender Equality in Land Administration in FBiH, Your Gender, Your Rights!” in 2017. As such at the output level, there is consistent evidence that gender equality was put on the table and explored to the extent relevant to the project. The ratio of male to female participants among project staff over the life of the project or among participants at project events is not known as such data was not been collected and summarised in the project’s monitoring reports.

The evaluation found that while there was a commitment to gender equality among project participants, there was a common view expressed in Skype and face-to-face meetings that the IMPULS project, with its high level and technical focus, did not bear directly on improvements to equality between the genders. Gender equality is a

critical issue in land administration, an aspect which both the beneficiary countries and international partners have been focusing on for many years. Indeed, the BOs have other projects running simultaneously on gender equality, for instance, the CILAP project involves the development of an action plan for promoting GE in land administration and the development of GE integrity plans for BiH; another example is the Open Regional Fund for South East Europe project on Gender and Land Rights.

However, the link between IMPULS and outcomes related to gender equality is not as tangible. At most, the project was recognised as a contributor to the debate, for instance, the project's awareness raising activities along with those of other international partners and civil society groups was said to have helped the passage of laws on joint spousal property rights in certain countries. In terms of gender equality within the beneficiary organisations, again it seems the awareness was already there with a good gender balance already pre-existing the project. For example, some BOs have near 50 per cent or more female staff and in some cases, more women than men in top management positions. As such direct outcomes on gender equality cannot be much attributed to the IMPULS project.

Multi-dimensional poverty approach/Human rights-based approach

SIDA's multi-dimensional poverty approach was expressly raised during the evaluation set-up for inclusion in the evaluation assessment. This refers to Sida's multidimensional view of poverty, implying that poverty not only means lack of material resources, but also lack of power, voice and respect for human rights, lack of opportunities and choice, and/or lack of human security. A poverty toolbox has been developed to enable a multidimensional poverty analysis with the aim of contributing to a shared and deeper understanding of multidimensional poverty, better knowledge about how Sida's operations affect people living in poverty and better operational decisions that reflect the perspective of people living in poverty. This issue is akin to the concept of human rights-based approaches; both concepts overlap to a considerable degree with their emphasis on the right of citizens to have voice and accountability and as such are addressed together.

This issue of MDPA was not as well integrated into project activities as gender equality. The issue was put on the agenda towards the end of the project in April 2019 through a presentation by Sida. In terms of human rights per se, there is little reference in project documents, if at all notwithstanding that gender equality itself is a key human rights issue. As such there are very few outputs related to MDPA/human rights as compared to gender equality.

The issue was explored in evaluation interviews. While there is no direct link between the project activities and MDPA/human rights outcomes, BOs and also some external stakeholders recognise the ultimate links between NSDI and greater public accountability in terms of the democratisation of data and the sharing of spatial data leading to more efficient public administration, more transparency, the combating of corruption and greater rights for ordinary citizens. Such issues are being more directly

addressed by other projects in the region for instance, activities linked to property rights and ethnic minorities and the right to vote based on property registration and identity verification. The lesson learned is that if a project wishes to achieve results on such issues, a specific component needs to be built in to the project design.

Environment

This cross-cutting issue is linked more directly with the project even though this was not much articulated in the project inception report which focused on the environmental impacts of project activities themselves in terms of reducing the carbon footprint. The discussion at the project inception stage found very few negative environmental impacts associated with the project and minor impacts arising were mainly due to international travel with the conclusion that the ‘carbon footprint’ should be reduced by using Skype, phone and other technical tools enabling meetings without travel. It also noted that the INSPIRE Directive is an Environmental Directive aimed at positive effects on the environment and that the monitoring framework would look at how to measure these positive effects. While this project did have a direct link with environmental issues which were subsequently developed in implementation, the otherwise limited assessment of environmental connections made at project start-up raises questions as to how environment as a cross-cutting issue would be integrated into other projects which don’t have the same direct link.

The real link lies in this latter point regarding the justification for NSDI in terms of the need to share geo-spatial data at times of crisis and natural disaster both nationally and with neighbouring countries according to Skype and face-to-face interviews during field visits (the issue was little mentioned in questionnaire responses). One of the main drivers for implementation of the INSPIRE Directive in the region were the Danube floods in 2014 and the wider realisation of the need to share data in order to tackle common natural disasters such as fires, floods and earthquakes.

Environmental issues became a key focus of the project with crisis management becoming the pilot project aimed at demonstrating the benefits of NSDI. The four priority datasets selected for NSDI compliance were intended to be used in a crisis management test case but as mentioned earlier, this did not move beyond the proof of concept phase. Engagement with the IPA-DRAM project provides further opportunities to focus on geo-spatial data sharing for the purposes of disaster risk reduction. As with other issues, other complementary projects in the region are also working on similar issues, CILAP, for example is working on environmental action plans by ensuring reliable information on current land use and land rights.

5 Evaluative Conclusions

The IMPULS project was a very large and complex project comprising 11 organisations (including six BOs), six beneficiary countries and an intensive schedule of activities. It took on the difficult challenge of helping beneficiary countries establish a high level NSDI in compliance with the EU INSPIRE Directive. Prior to the project, aside from some initial awareness-raising on NSDIs through an earlier project, little had been done to make the region ready for this level of data-management and exchange. The key findings of the evaluation by evaluation criteria are as follows:

Relevance

The project is highly relevant, it helps bring beneficiary countries into compliance with the EU INSPIRE Directive, a necessary pre-requisite for those seeking to accede the EU and become Member States. The adoption of NSDIs is a global trend being pursued by major international organisations such as the United Nations and World Bank. Moreover, the sharing of data at national level across government agencies aids policy-making, avoids duplication and waste and increases transparency. The project fits well with Sida's strategy of supporting the development of the reform of public administration and services in transition economies based on a respect for the rule of law, democracy, good governance and human rights. The IMPULS project is a good fit between the needs and interests of both beneficiary and donor organisations.

Effectiveness

The project has been effective in achieving outcomes related to the increased understanding of SDI among BOs; the increased production, use and provision of data by BOs in accordance with SDI requirements; and the promotion of NSDIs at national and regional levels. The project, as the premier regional project on NSDI, has laid the foundation and helped BOs navigate their way around the implementation of the very complex and ambitious INSPIRE Directive. The beneficiary countries were at a basic starting point when the project began; it has done the ground work by building capacity on all aspects of an NSDI and provided initial support for implementation activities. Implementation needs to drive further and is already being done to some extent through BO's own resources and other donor projects. While the high ambition of data sharing at national and regional levels embodied in the INSPIRE Directive is not much achieved (national level partial sharing and none at regional level), stepping stones towards achieving these goals have been put in place. A useful lesson learned is to ensure that expected results prioritise what is most relevant and feasible in terms of exchanging data at national level before moving on to objectives of general national and regional data-sharing. Challenges remain in

terms of national capacity, technical challenges, legal obstacles, resources and political sensitivities. The project's own monitoring framework did not always do credit to the achievements of the project due to overly ambitious targets and expectations and insufficient attribution of results to the project's activities.

Efficiency

The high ambition set for the project and the complexity of the task in hand led to some management challenges in implementation. The project was designed as a twinning arrangement whereby peer agencies in Sweden and Croatia provided technical support to the BOs. While this proved to be a valued and effective arrangement, it was not always able to deliver timely practical support to BOs, partly because the need for follow-on implementation activities was under-estimated. Increased coordination at high level between donors/lead agencies may have helped build synergies and fill some of these gaps.

Impact

Long-term impacts in terms of improved public governance, increased transparency and economic development cannot be tracked to this project. However, intermediate impacts in terms of changes in individuals (awareness and capacity in NSDI) and changes in organisations (human resource capacity, organisational strategies, institutional structures) can be seen. The project has also contributed to the visible strengthening of national laws and structures on NSDI which in turn will impact on increased access to data by citizens and greater public accountability.

Sustainability

There are strong prospects for sustainability as the work supported by the project is aligned with national goals and integrated into the strategies and business plans for the BOs. Staff funded by the project have been or are expected to be retained subject to resources. There is a commitment to continuing regional cooperation among the BOs with a signed MOU being a key result of the project.

Cross-cutting issues

Issues prioritised by Sida's funding strategy were integrated into the project to varying degrees. Gender equality was prioritised and resulted in a number of activities and outputs although outcomes in this area were not visible given the nature of the project as a high level technical and coordination intervention. Environment was more closely related to the core function of the project insofar as one of the drivers of NSDI is the need for cross-border coordination and data-sharing at times of natural disaster and crisis. As such various project activities contributed to strengthening national preparedness for environmental crises. Sida's multi-dimensional poverty approach which encompasses a number of human rights principles related to the right of citizens to have voice and accountability did not

appear until a late stage of the project and again given the nature of the project, no direct outcomes were visible.

6 Lessons Learned

➤ Importance of designing M&E systems to capture direct project effects

The project carried out valuable monitoring exercises including technical monitoring by experts and a self-assessment framework which enables BOs to measure progress against establishing an NSDI. However, it struggled to set up a system which adequately captured the direct effects of its activities. Such outcomes could have been captured by commonplace monitoring tools such as pre and post event surveys and using labour saving devices such as electronic surveys, smart phone apps. The project had technical expertise on M&E at the very start with an outcome mapping workshop which highlighted key issues for consideration. It would have been helpful if the project had retained this expertise over the life of the project, using M&E specialists working in the field of international cooperation to devise tools, monitor progress and to carry out a mid-term review.

➤ Coordination with other international donors and projects can add value

There was outreach and coordination with other projects at the level of beneficiary organisations and project implementation. However, higher coordination at the level of donors and lead implementing agencies (Sida/Lantmäteriet) did not take place until very late in the life of the project. Coordination at this level may have helped find synergies with joint assessments and planning perhaps filling the implementation gaps which the project was unable to address. It would be useful to clarify in future funding agreements how this role is divided up between Sida and the lead implementer and who will be responsible for which level of coordination.

➤ Structured needs assessment at the outset is an important foundation for a project

The project appears premised on over-ambition in terms of meeting the high-level requirements of the INSPIRE Directive and an over-estimation of the capacity of the BOs. While discussions took place in the inception phase, they were not structured and did not give an accurate sense of the practical needs of the BOs.

➤ Implementation plans need to accompany capacity building interventions

The project coupled training events with hands on experience and also enabled implementation through the provision of funding for local trainees. The project could have gone further in ensuring sufficient opportunities for implementation either through dedicated project funds or through collaboration with other donors/projects,

for BOs to apply theoretical knowledge acquired in workshop to practical implementation and putting in place the elements of a functioning NSDI.

➤ **Outsourcing of supplemental technical support may be necessary to meet needs**

The capacity building model involved drawing on the expertise of civil servants from other governments. This twinning arrangement was very valuable but not always sufficient for covering the needs of the BOs. The project could have had a supplemental element enabling the deployment of experts from the private sector on consulting assignments in cases where experts from the lead implementing agency were unable to provide support.

➤ **A communications strategy is a key part of project planning**

The project was active in attending conferences and events but fairly low key in terms of its public visibility with only a short webpage with limited information on the Lantmäteriet website. A stronger communications strategy would have helped raise awareness of the project and enable other donors and projects to establish contact more easily. A broader communication strategy would also have supported the awareness-raising activity on NSDI needed at national level.

➤ **Gender-disaggregated data is essential to all areas of policy-making**

The project did not disaggregate data by gender in its project activities e.g. participants at its events were not broken down by sex, nor was a gender disaggregated record of project-related staff in beneficiary organisations maintained. Had this been done, it may have highlighted trends or areas for improvement. Moreover, as gender-differentiated data and information is essential for all areas of policy-making, making a point of producing such data would have helped build the capacity of public servants in the BOs and instilled this as a good practice.

➤ **Multi-dimensional poverty approaches need to be integrated from the outset**

Sida's priority cross-cutting issue of multi-dimensional poverty was not put on the agenda until near the project end. Sida did not adopt this as a conceptual framework until 2017 so while it was not available at the project start, other related concepts such as human rights-based approaches were part of Sida's approach to development cooperation. The concept of human rights does not feature in the project activities and while there is no direct relationship between the project subject-matter and human rights, as a cross-cutting issue, it should have formed part of the training and capacity building activities (in the same way as gender) in order to build awareness among BOs and potentially influence their other activities.

➤ **Environmental concerns need to be integrated more fully as a cross-cutting issue**

The IMPULS project had a direct link with environmental issues given the basis of the INSPIRE Directive in environmental concerns and the development of programme components in delivery. The assessment of environmental connections was otherwise limited to a consideration of reducing carbon footprints, and the question arises as to how environment as a cross-cutting issue would be integrated into other projects which don't have the same direct link. It is worth reviewing, perhaps by drawing on the practice of other donors, how the environment is integrated as a criteria in grant-making.

➤ **Cross-cutting issues do not relate directly to all projects and specific components may need to be developed**

Not all projects directly impact on cross-cutting issues highlighted in Sida's development strategy. If specific outcomes are sought in relation to gender equality, multi-dimensional poverty/human rights-based approaches, or environment, the lesson learned is that specific activities and outputs need to be built in. This type of high-level coordination project does not directly impact on such issues but at lower levels, linkages can be made e.g. promoting property rights for women or minority groups. However, adding on components in order to address cross-cutting issues needs to be balanced against the need to do this in an appropriate meaningful way which maintains the coherence and the logic of the intervention.

7 Recommendations

These recommendations are directed to the primary users of the evaluation, Sida and Lantmäteriet. This was a very complex and challenging project which aimed to develop an infrastructure of national scope in relation to a highly technical subject in six Balkan countries. The development of NSDIs in line with the EU INSPIRE Directive was still relatively new when the project originated in 2014 and compliance with this directive remains challenging to this day even for higher income EU Member States.

The IMPULS project alongside contributions by the beneficiary countries and other international donors has embedded an NSDI in national policy-making and the project's monitoring data shows significant change as compared to the baseline. The project was very ambitious in retrospect, and it also faced many implementation challenges, internal difficulties such as high staff turnover in the participant organisations, as well as external resistance and lack of capacity. Despite this the project has succeeded in delivering key outcomes which have laid the groundwork for a strengthened system of NSDI in the region.

These recommendations are directed to the primary users of the evaluation, Sida and Lantmäteriet. They are intended as lessons learned for use in planning similar projects in the future and aim to address the challenges which emerged in the implementation of the project and which may be addressed through actions taken by implementing organisations. Each recommendation is supported by an explanatory note with suggestions for implementation of the recommendation. In addition, the main text of the evaluation report has other ideas which the users may wish to consider in future programming.

- Strengthen M&E to better capture the direct outputs and outcomes of the project
- Strengthen coordination with other international donors
- Ensure the design of the project is based on a structured needs assessment
- Ensure capacity building interventions go further in ensuring training is followed by an implementation plan
- Enable outsourcing of supplemental technical support if necessary
- Develop a communications strategy to raise awareness of the project
- Ensure gender-disaggregated data is collected in relation to project activities

- Ensure multi-dimensional poverty approaches are highlighted as a cross-cutting issue from the outset and on an ongoing basis
- Review whether environmental concerns can be integrated more fully as a cross-cutting issue
- Integrate specific project components if there is a wish to address cross-cutting issues more substantively

Annex 1 – Terms of Reference

Terms of Reference for the end evaluation of regional project IMPULS (spatial data infrastructure)

Date: 2019-09-02

1. Introduction

Sweden's cooperation with national Cadastral- and Geodetic authorities on Balkan under the regional programme is governed by the Results' Strategy for Sweden's Reform Cooperation with Eastern Europe, the Western Balkans and Turkey 2014-2020. The IMPULS project is aligned with the Strategy, and contributes to Result Area (2) "Strengthened democracy, greater respect for human rights, and a more fully developed state under the rule of law".

2. Evaluation rationale

The evaluation rationale is the following:

- Evaluate the IMPULS project performance and capacity built within the Beneficiary Organisations by the time the IMPULS project ends on December 31st, 2019. This evaluation will be conducted as a final evaluation of the project identifying lessons learned.

3. Evaluation object: IMPULS

The project to be evaluated is the SIDA-funded IMPULS project (Sida's contribution no: 55020189) with the aim of establishing core national spatial data infrastructures (NSDI's) in the Western Balkan region. The original project activity period was from the May 30th, 2014 – December 31st, 2018 but has been prolonged to December 31st, 2019. The total project budget is 38 million SEK.

Lantmäteriet is the implementing and agreement partner working in cooperation with State Geodetic Administration of the Republic of Croatia (SGA), being the junior project manager. The beneficiary organisations in the Western Balkan are:

- Immovable Property Central Registration Office of the Republic of Albania (IPRO)
- National Authority for Geospatial Information in Albania (ASIG)
- Federal Administration for Geodetic and Real Property Affairs of BiH (FGA)

- Republic Authority for Geodetic and Property Affairs of the Republic of Srpska (GARS)
- Kosovo Cadastral Agency (KCA)
- Agency for the Real Estate Cadastre of the Republic of Macedonia (AREC)
- Real Estate Administration of the Republic of Montenegro (REA)
- Republic Geodetic Authority of the Republic of Serbia (RGZ)

The IMPULS project is a continuation of the INSPIRATION project, which was financed through the EU, with IPA funding. The INSPIRATION project ran 2012-2013 and had a budget of 1 500 000 EUR. Beneficiary countries for the INSPIRATION project were Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Kosovo¹².

Comparing the INSPIRATION and IMPULS the aim of the latter is to continue the cooperation among the project beneficiaries that was developed during the INSPIRATION project and increase it both to be wider (involving more stakeholders and more issues) and deeper (hands on workshops, joint development, sharing experiences etc.). The IMPULS project is moving from more general activities for raising awareness, making analyses and transfer high level knowledge to increasing practical knowledge, capacity and supporting actual implementation of the INSPIRE Directive – all focusing on cooperation, hands on work and sustainability.

The following outcomes are set by the project:

1. Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region.
2. Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.
3. Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working,

¹² This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

For further information, the programme proposal is attached as Annex D.

The intervention logic or theory of change of the project shall be further elaborated by the evaluator in the inception report.

4. Evaluation scope

The evaluation scope is limited to IMPULS programme.

The overall objective of the evaluation is to assess the results achieved by the project in relation to the outcomes set, activities planned and implemented. It should provide lessons learned and measure existing relevance and needs in regard to the initial needs and relevance.

If needed, the scope of the evaluation may be further elaborated by the evaluator in the inception report.

5. Evaluation purpose: Intended use and intended users

The purpose or intended use of the evaluation is to:

- Assist Sida and Lantmäteriet in assessing performance and achievements of the IMPULS project and to learn from what works well and what challenges remain.
- Assist Sida and Lantmäteriet in assessing how better sustainability of results can be achieved in similar future projects

The primary intended users of the evaluation are:

- Sida
- Lantmäteriet (including SGA)

The evaluation is to be designed, conducted and reported to meet the needs of the intended users and tenderers shall elaborate in the tender how this will be ensured during the evaluation process.

During the inception phase, the evaluator and the users will agree on who will be responsible for keeping the various stakeholders informed about the evaluation.

6. Evaluation objective: Criteria and questions

The evaluation has the following objective:

- Evaluate the impact, relevance and efficiency of the programme IMPULS and identify lessons learned and how to increase the sustainability.

The evaluation criteria are:

- Assess the achieved results in relation to the objectives of the intervention
- Lessons learnt in relation to the cooperation partner's capacity
- Lessons learnt that may be useful for possible future interventions

Relevance

- To which extent has the project conformed to the needs and priorities of the beneficiaries and donor policies?
- Assess the relevance of the project design, is the approach still relevant? What are the lessons learnt from the project in this respect? What collaboration and co-ordination arrangements were applied and how well did they function?
- Assess the relevance and appropriateness of having a Swedish institutional partner in collaboration with a Croatian institution, delivering the support? What were the advantages and disadvantages of the solution chosen?
- To what extent the objectives of the project are consistent with beneficiaries' requirements and needs?

Efficiency

- Can the costs for the project be justified by its results?

Effectiveness

- To which extent have the project contributed to intended outcomes? If so, why? If not, why not?
- Have the M&E system delivered robust and useful information that could be used to assess progress towards outcomes and contribute to learning?
- To what extent has lessons learned from what works well and less well been used to improve and adjust project/programme implementation?
- To what extent is the Swedish funded project coordinated with that of other donor funded support to the Beneficiary Organisations, in order to optimise the effects of the support provided?

Impact

- What is the overall impact of the programme in terms of direct or indirect, negative and positive results?
- Establish the extent to which cross-cutting issues (gender equality, environment) have changed during project implementation?

Sustainability

- Is it likely that the benefits (outcomes) of the project are sustainable?
- To what extent have the Beneficiary Organisations devoted time and resources for the completion of the project during the project time?
- What is the level of project ownership from the side of the Beneficiary Organisations – are they ready to build on the project achievements and carry on?
- To what extent will the benefits of the project continue after the project completion?
- Are there any areas that still needs attention within the organisations, will a continued cooperation gain involved authorities and is there a need of future projects within this area?

Gender equality

- Has the project had any positive effects on gender equality? Could gender mainstreaming have been improved in planning, implementation or follow up?
- Questions are expected to be developed in the tender by the tenderer and further developed during the inception phase of the evaluation.

7. Evaluation approach and methods

It is expected that the evaluator describes and justifies an appropriate evaluation approach/methodology and methods for data collection in the tender. The evaluation design, methodology and methods for data collection and analysis are expected to be fully developed and presented in the inception report. Limitations to the methodology and methods shall be made explicit and the consequences of these limitations discussed. A *gender responsive* methodology, methods and tools and data analysis techniques should be used. A clear distinction is to be made between evaluation approach/methodology and methods. The evaluator should also identify limitations and constraints with the chosen approach and method and to the extent possible, present mitigation measures to address them.

Sida's approach to evaluation is *utilization-focused*, which means the evaluator should facilitate the *entire evaluation process* with careful consideration of how everything that is done will affect the use of the evaluation. It is therefore expected

that the evaluators, in their tender, present i) how intended users are to participate in and contribute to the evaluation process and ii) methodology and methods for data collection that create space for reflection, discussion and learning between the intended users of the evaluation.

In cases where sensitive or confidential issues are to be addressed in the evaluation, evaluators should ensure an evaluation design that do not put informants and stakeholders at risk during the data collection phase or the dissemination phase.

The evaluation should be conducted in a participatory manner that allows for the main project partners to comment on both the terms of references and the draft conclusions of the evaluation.

The consultants will review all relevant documentation including decision-memos and agreements, project steering documents, periodic reports as well as technical reports of relevance for the evaluation assignment.

Interviews shall be conducted with representatives of the relevant organizations and Lantmäteriet. To the extent possible, with a view to the short field mission, interviews could also cover other relevant organizations such as IPA DRAM project, etc.

It is expected that the evaluator describes and justifies an appropriate evaluation approach/methodology and methods for data collection in the tender.

The evaluation design, methodology and methods for data collection and analysis are expected to be fully developed and presented in the inception report. A clear distinction is to be made between evaluation approach/methodology and methods.

The evaluator should facilitate the entire evaluation process with careful consideration of how everything that is done will affect the use of the evaluation. It is therefore expected that the evaluators, in their tender, present:

- i) how intended users are to participate in, and contribute to, the evaluation process and
- ii) methodology and methods for data collection that create space for reflection, discussion and learning between the intended users of the evaluation.

Evaluators should take into consideration appropriate measures for collecting data in cases where sensitive or confidential issues are addressed and avoid presenting information that may be harmful to some stakeholder groups.

8. Organisation of evaluation management

This evaluation is commissioned by dept. för Europa and Latin America. The intended users are Sida and Lantmäteriet. The intended users of the evaluation will

form a working group that will approve the inception report and the final report of the evaluation. The working group will participate in the debriefing workshop where preliminary findings and conclusions are discussed.

Lantmäteriet has contributed to the ToR, and will be provided with an opportunity to comment on the Inception Report, as well as the Final Report. Lantmäteriet will not be involved in the management of the evaluation. Hence, the evaluation team (Sida) will evaluate tenders, approve the Inception Report and the Final Report of the evaluation.

9. Evaluation quality

All Sida's evaluations shall conform to OECD/DAC's Quality Standards for Development Evaluation¹³. The evaluators shall use the Sida OECD/DAC Glossary of Key Terms in Evaluation¹⁴. The evaluators shall specify how quality assurance will be handled by them during the evaluation process.

10. Time schedule and deliverables

It is expected that a time and work plan is presented in the tender and further detailed in the inception report. The evaluation shall be carried out between 1 October and 31 December 2019. The timing of any field visits, surveys and interviews need to be settled by the evaluator in dialogue with the main stakeholders during the inception phase.

The table below lists key deliverables for the evaluation process. Deadlines for final inception report and final report must be kept in the tender, but alternative deadlines for other deliverables may be suggested by the consultant and negotiated during the inception phase.

Deliverables	Participants	Deadlines
1. Start-up meeting	Consultant, Sida, LM	19 September
2. Draft inception report		1 October
3. Inception meeting	Consultant, Sida, LM	7 October
4. Comments from intended users to evaluators		14 October
5. Final Inception Report		21 October
6. Data collection, interviews, analysis and	Evaluators	OBS: Interviews shall be

¹³ DAC Quality Standards for development Evaluation, OECD, 2010.

¹⁴ Glossary of Key Terms in Evaluation and Results Based Management, Sida in cooperation with OECD/DAC, 2014.

report writing		held during the IMPULS final conference (13-14 November in BiH)
7. Debriefing/validation workshop (meeting)		29 November
8. Draft evaluation report		13 December
9. Comments from intended users to evaluators		20 December
10. Final evaluation report		31 December

The inception report will form the basis for the continued evaluation process and shall be approved by Sida before the evaluation proceeds to implementation. The inception report should be written in English and cover evaluability issues and interpretations of evaluation questions, present the evaluation approach/methodology (including how a utilization-focused and gender responsive approach will be ensured), methods for data collection and analysis as well as the full evaluation design. A clear distinction between the evaluation approach/methodology and methods for data collection shall be made. A specific time and work plan, including number of hours/working days for each team member, for the remainder of the evaluation should be presented. The time plan shall allow space for reflection and learning between the intended users of the evaluation.

The final report shall be written in English and be professionally proof read. The final report should have clear structure and follow the report format in the Sida Decentralised Evaluation Report Template for decentralised evaluations (see Annex C). The executive summary should be maximum 3 pages. The evaluation approach/methodology and methods for data collection used shall be clearly described and explained in detail and a clear distinction between the two shall be made. All limitations to the methodology and methods shall be made explicit and the consequences of these limitations discussed. Findings shall flow logically from the data, showing a clear line of evidence to support the conclusions. Conclusions should be substantiated by findings and analysis. Evaluation findings, conclusions and recommendations should reflect a gender analysis/an analysis of identified and relevant cross-cutting issues. Recommendations and lessons learned should flow logically from conclusions. Recommendations should be specific, directed to relevant stakeholders and categorised as a short-term, medium-term and long-term. The report should be no more than a maximum of 35 pages excluding annexes (including Terms

of Reference and Inception Report). The evaluator shall adhere to the Sida OECD/DAC Glossary of Key Terms in Evaluation¹⁵.

The evaluator shall, upon approval of the final report, insert the report into the Sida Decentralised Evaluation Report for decentralised evaluations and submit it to Nordic Morning (in pdf-format) for publication and release in the Sida publication data base. The order is placed by sending the approved report to sida@nordicmorning.com, always with a copy to the responsible Sida Programme Officer as well as Sida's Evaluation Unit (evaluation@sida.se). Write "Sida decentralised evaluations" in the email subject field. The following information must always be included in the order to Nordic Morning:

1. The name of the consulting company.
2. The full evaluation title.
3. The invoice reference "ZZXXX".
4. Type of allocation "sakanslag".
5. Type of order "digital publicering/publikationsdatabas".

11. Evaluation team qualification

In addition to the qualifications already stated in the framework agreement for evaluation services, the evaluation team shall include the following competencies:

- Knowledge and experience of development public policy/administration
- Knowledge of NSDI, INSPIRE, GIS and related disciplines
- Knowledge of policy making/ institutional capacity building

A CV for each team member shall be included in the call-off response. It should contain a full description of relevant qualifications and professional work experience. It is important that the competencies of the individual team members are complimentary. It is highly recommended that local consultants are included in the team if appropriate.

The evaluators must be independent from the evaluation object and evaluated activities, and have no stake in the outcome of the evaluation.

12. Financial and human resources

The maximum budget amount available for the evaluation is 500 000 sek as a maximum.

¹⁵ Glossary of Key Terms in Evaluation and Results Based Management, Sida in cooperation with OECD/DAC, 2014

The contact person at Sida is Nina Geladze Ekstedt. The contact person should be consulted if any problems arise during the evaluation process.

Relevant Sida documentation will be provided by Nina Geladze Ekstedt (Thematic Advisor Natural Resources/Land Management at EuroLatin, Sida). Relevant documentation should be prepared well in advance.

Contact details to intended users will be provided by Anders Rydén (project manager at Lantmäteriet)

The evaluator will be required to arrange the logistics including any necessary security arrangements.

13. Annexes

[The compulsory attachments to the ToR are Annex A “List of key documentation”, Annex B “Data sheet on the evaluation object” and Annex C “Decentralised Evaluation Report Template”. Annex D “Project/Programme document” could be annexed if relevant.]

Annex B: Data sheet on the evaluation object

Information on the evaluation object (i.e. project or programme)	
Title of the evaluation object	IMPULS – spacial data infrastructure
ID no. in PLANIt	55020189
Dox no./Archive case no.	13/001285
Activity period (if applicable)	2014-05-30 – 2019-12-31
Agreed budget (if applicable)	SEK 38 400 000
Main sector ¹⁶	Democracy, human rights and gender equality
Name and type of implementing organisation ¹⁷	Public sector institutions
Aid type ¹⁸	Project Type
Swedish strategy	Results strategy for Sweden’s reform cooperation with Eastern Europe, The Western Balkans and Turkey 2014-2020

16 Choose from Sida’s twelve main sectors: education; research; democracy, human rights and gender equality; health; conflict, peace and security; humanitarian aid; sustainable infrastructure and services; market development; environment; agriculture and forestry; budget support; or other (e.g. multi-sector).

17 Choose from the five OECD/DAC-categories: public sector institutions; NGO or civil society; public-private partnerships and networks; multilateral organisations; and other (e.g. universities, consultancy firms).

18 Choose from the eight OECD/DAC-categories: budget/sector support; core contributions/pooled funds; project type; experts/technical assistance; scholarships/student costs in donor countries; debt relief; admin costs not included elsewhere; and other in-donor expenditures.]

Information on the evaluation assignment	
Commissioning unit/Swedish Embassy	Sida, EuroLatin
Contact person at unit/Swedish Embassy	
Timing of evaluation (mid-term, end-of-programme, ex-post or other)	August-September 2019
ID no. in PLANIt (if other than above).	

Annex C: Decentralised evaluation report template

[This format is a requirement for publication under the “Sida Decentralised Evaluations” report series and can be found on Sida’s Inside, under Guidelines & Support/Contribution Management/Evaluation/Implementing.]

Annex D : Project/Programme document

Annex 2 – Evaluation Matrix

Evaluation criteria	Evaluation questions	Indicators	Data collection instruments	Sources of information
Relevance	1. To which extent has the project conformed to the needs and priorities of the beneficiaries and donor policies? How is the project relevant to the national, regional and Europe-wide context?	Evidence from beneficiaries and donor on the extent to which project has meet needs and priorities	Instrument 1, 3	Interviews with key project stakeholders and wider project stakeholders, document review
Relevance	2. Assess the relevance of the project design, is the approach still relevant? Was the design based on a needs assessment and context analysis? Was the design the most appropriate way to meet the needs identified? What are the lessons learnt from the project in this respect? What collaboration and co-ordination arrangements were applied and how well did they function?	Evidence from project documentation on needs assessment and ongoing adaptation. Assessment of current needs by beneficiaries Confirmation of relevance of design from donor, implementing agency and beneficiary organisations	Instrument 1, 3	Interviews with key project stakeholders, document review
Relevance	3. Assess the relevance and appropriateness of having a Swedish institutional partner in collaboration with a Croatian institution, delivering the support? What were the advantages and disadvantages of the solution chosen?	Evidence from Swedish and Croatian partners on approach.	Instrument 1	Interviews with key project stakeholders (Sida, Lantmäteriet and SGA), document review
Relevance	4. How does the project serve the purpose of respect for human rights, democracy, rule of law and gender equality?	Evidence from project documents on integration of these issues. Examples from stakeholders on linkages with these issues.	Instrument 1, 2, 3	Interviews with key project stakeholders and wider project stakeholders, document review

Effectiveness	5. To which extent has the project contributed to intended outcomes? 5.1. Project outcomes: 5.1.1. Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region. 5.1.2. Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data. 5.1.3. Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed. 5.2. Project work packages: 5.2.1. WPI – project management and administration 5.2.2. WP2 – data sharing policy and regulations 5.2.3. WP3 – data harmonization 5.2.4. WP4 – meta data and quality evaluation 5.2.5. WP5 – dissemination (services and portal) 5.2.6. WP6 – Benefits – demonstrations, pilot implementation 5.3. Cross-cutting issues: 5.3.1. Gender equality - Has the project had any positive or negative effects on gender equality? Could gender mainstreaming have been improved in planning,	Examples from stakeholders on ability of project to meet outcomes, deliver work packages and address cross-cutting issues. Evidence from project reports tracking progress in meeting outcomes, particularly Outcome Mapping in semi-annual progress reports. Evidence from workshop and other reports demonstrating achievement of outputs, outcomes and impacts.	Instrument 1, 2, 3	Interviews with key project stakeholders and wider project stakeholders, document review especially semi-annual progress reports
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	implementation or follow up? 5.3.2. Human rights – Has the project had any positive or negative effects on human rights? 5.3.3. Environment – Has the project had any positive or negative effects on the environment? 5.3.4. Sida’s Multi-dimensional approach to poverty – Has the project had any positive or negative effects on the multi-dimensional approach?			
Effectiveness	6. What other unanticipated or unexpected ‘results’ (not in the original plan) were achieved?	Examples from stakeholders on unexpected results not captured in project vision or documents.	Instrument 1, 2, 3	Interviews with key project stakeholders and wider project stakeholders, document review especially semi-annual progress reports
Efficiency	7. What were the major factors influencing the achievement or non-achievement of the outcomes? [This includes internal issues such as management, resources, relationships, programme design/planning, monitoring and evaluation, institutional capacity as well as the external context - policy, politics, socio-economic issues; partnerships and relationships with external organisations etc.] 7.1. Has the M&E system delivered robust and useful information that could be used to assess progress towards outcomes and contribute to learning? 7.2. How well have partnerships and cooperation worked to fulfil the goals of the project? 7.3. To what extent has the Swedish-funded IMPULS project coordinated with other projects funded by other donors which also provide support to the Beneficiary Organisations in relation to the same issue, in order to optimise the effects of the support provided by different donors? 7.4. To what extent has lessons learned from what works well	Evidence from project documents particularly semi-annual reports on factors affecting progress. Evidence from interviews assessing factors influencing the delivery of the project.	Instrument 1, 3	Interviews with key project stakeholders document review especially semi-annual progress reports

	and less well been used to improve and adjust project/programme implementation? 7.5. Can the costs for the project be justified by its results? To what extent were the resources and inputs converted to outputs in a timely and cost-effective manner?			
Impact	8. What is the overall impact of the programme in terms of direct or indirect, negative and positive results? What is the most significant change you have seen as a direct result of the Project? 8.1. INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area. (original impact statement) 8.2. Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive. (original impact statement) 8.3. Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions ‘<i>Competitiveness</i>’, ‘<i>Effective public services</i>’ and ‘<i>Anti-corruption</i>’. (original impact statement) 8.4. Establish the extent to which there have been changes in relation to cross-cutting issues (gender equality, human rights, environment) as a result of the project?	Testimonies of interviewees with examples of impact in relation to the project’s defined impacts as well as cross-cutting issues.	Instrument 1, 2, 3	Interviews with key project stakeholders and wider project stakeholders
Sustainability	9. Is it likely that the benefits (outcomes) of the project are	Evidence from interviews showing	Instrument 1, 2, 3	Interviews with key project stakeholders

	sustainable? 9.1. To what extent have the Beneficiary Organisations devoted time and resources for the completion of the project during the project time? 9.2. What is the level of project ownership from the side of the Beneficiary Organisations – are they ready to build on the project achievements and carry on? 9.3. Are there any areas that still need attention within the organisations? Will continued cooperation be beneficial and is there a need of future projects within this area?	how examples of how benefits are being sustained. Evidence from interviews with beneficiary organisations showing time and resources devoted to project and its continuation and reflections on need for continued support.		and wider project stakeholders, document review especially semi-annual progress reports
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Annex 3 – Data Collection Instruments

Instrument 1: Interview guide for key project stakeholders

END EVALUATION OF REGIONAL PROJECT IMPULS (SPATIAL DATA INFRASTRUCTURE)

Background

This is an evaluation of the Sida-funded IMPULS project which aims to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region. The project runs from 30 May 2014 to 31 December 2019 (including one year no-cost extension granted on 31 December 2018) and has a budget of 38 million SEK. It is implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior partner. The geographical scope of the project covers six countries comprising of Albania, Bosnia and Herzegovina, Kosovo¹⁹, North Macedonia, Montenegro and Serbia and it is implemented through eight beneficiary organisations.

The rationale for the evaluation is to carry out a final project evaluation in the last quarter of the project as it comes to an end. The purpose of the evaluation is to assist Sida and Lantmäteriet in assessing the performance of the IMPULS project, to learn from what has worked well and what challenges remain, and to assess how sustainability can best be achieved in similar future projects. The evaluation started in mid-September and due to be completed by the end of December 2019. The principal team members are Asmita Naik (team leader) and Nysret Gashi (team member). The final evaluation report will be made public.

Preliminary Information

Name:

Agency:

Role:

19 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

Date:

Informed consent: (explain purpose of evaluation; how information will be used and anonymity of contributors in evaluation reporting)

Evaluation Questions

The list below comprises 7 main evaluation questions which interviewees are requested to answer. In addition, each main question is accompanied by a subset of prompts based on the questions listed in the evaluation terms of reference. The interviewee may answer some or all of these questions depending on time availability and their area of expertise or knowledge. **Ask interviewees to give evidence to back up their points and specific examples to illustrate their answers.**

1. What is your role and involvement in the project? (Briefly describe)

2. How effective is the project? What has the project achieved?

Consider for example:

- To which extent has the project contributed to intended outcomes? What has it achieved or not achieved?

Project outcomes:

Annex 1. - Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region.

Annex 2. - Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.

Annex 3. - Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

Annex 4.

Project work packages:

- WPI – project management and administration
- WP2 – data sharing policy and regulations
- WP3 – data harmonization
- WP4 – meta data and quality evaluation
- WP5 – dissemination (services and portal)
- WP6 – Benefits – demonstrations, pilot implementation

Cross-cutting issues:

- Gender equality - Has the project had any positive or negative effects on gender equality? Could gender mainstreaming have been improved in planning, implementation or follow up?
- Human rights-based approach and Sida's multi-dimensional approach to poverty Has the project had any positive or negative effects in relation to

human rights, voice and accountability? In particular what difference has the project made to the population?

- Environment – Has the project had any positive or negative effects on the environment?

- What other unanticipated or unexpected 'results' (not in the original plan) were achieved?

3. Is the project efficient?

- What were the major factors influencing the achievement or non-achievement of the outcomes?

[This includes internal issues such as management, resources, relationships, programme design/planning, monitoring and evaluation, institutional capacity as well as the external context - policy, politics, socio-economic issues; partnerships and relationships with external organisations etc.]

- Has the M&E system delivered robust and useful information that could be used to assess progress towards outcomes and contribute to learning?

- How well have partnerships and cooperation worked to fulfil the goals of the project?

- To what extent has the Swedish-funded IMPULS project coordinated with other projects funded by other donors which also provide support to the Beneficiary Organisations in relation to the same issue, in order to optimise the effects of the support provided by different donors?

- To what extent has lessons learned from what works well and less well been used to improve and adjust project/programme implementation?

- Can the costs for the project be justified by its results? To what extent were the resources and inputs converted to outputs in a timely and cost-effective manner?

4. Is the project relevant?

Consider for example:

- To which extent has the project conformed to the needs and priorities of the beneficiaries and donor policies? How is the project relevant to the national, regional and Europe-wide context?
- Assess the relevance of the project design, is the approach still relevant? Was the design based on a needs assessment and context analysis? Was the design the most appropriate way to meet the needs identified? What are the lessons learnt from the project in this respect? What collaboration and co-ordination arrangements were applied and how well did they function?
- Assess the relevance and appropriateness of having a Swedish institutional partner in collaboration with a Croatian institution, delivering the support? What were the advantages and disadvantages of the solution chosen?
- How does the project serve the purpose of respect for human rights, democracy, rule of law and gender equality?

5. What is the lasting impact of the project? What is the most significant change you have seen as a direct result of the Project?

Consider for example:

- What is the overall impact of the programme in terms of direct or indirect, negative and positive results? What is the most significant change you have seen as a direct result of the Programme?

- INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area. (original impact statement)
- Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive. (original impact statement)
- Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions '*Competitiveness*', '*Effective public services*' and '*Anti-corruption*'. (original impact statement)
- Establish the extent to which there have been changes in relation to cross-cutting issues (gender equality, environment, Sida's multi-dimensional approach to poverty/human rights-based approach) as a result of the project?
- What are the impacts of the project on the population of the country? Are there examples of the way people's daily lives have been affected by the project in terms of enhancing their rights, giving them voice, giving them the ability to hold decision-makers to account etc.

6. Is the project sustainable and if so, in what way?

- Is it likely that the benefits (outcomes) of the project are sustainable?
- To what extent have the Beneficiary Organisations devoted time and resources for the completion of the project during the project time?
- What is the level of project ownership from the side of the Beneficiary Organisations – are they ready to build on the project achievements and carry on?
- Are there any areas that still need attention within the organisations? Will continued cooperation be beneficial and is there a need of future projects within this area?

7. What are the lessons learned, best practices and recommendations for the future?

Consider for example:

- Does the project systematically collect feedback and recommendations from activities for beneficiaries and revise the project as needed?
- Does the project apply experiences, lessons learned and good practices in the design and planning of other projects?
- What lessons learned and best practices can be identified in the implementation of the project?
- What best practices can be identified and should be replicated in other projects/programmes?
- Do you have any recommendations for future work in this area?

Instrument 2: Interview guide for wider project stakeholders**END EVALUATION OF REGIONAL PROJECT IMPULS (SPATIAL DATA INFRASTRUCTURE)****Background**

This is an evaluation of the Sida-funded IMPULS project which aims to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region. The project runs from 30 May 2014 to 31 December 2019 (including one year no-cost extension granted on 31 December 2018) and has a budget of 38 million SEK. It is implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior partner. The geographical scope of the project covers six countries comprising of Albania, Bosnia and Herzegovina, Kosovo²⁰, North Macedonia, Montenegro and Serbia and it is implemented through eight beneficiary organisations. The rationale for the evaluation is to carry out a final project evaluation in the last quarter of the project as it comes to an end. The purpose of the evaluation is to assist Sida and Lantmäteriet in assessing the performance of the IMPULS project, to learn from what has worked well and what challenges remain, and to assess how sustainability can best be achieved in similar future projects. The evaluation started in mid September and due to be completed by the end of December 2019. The principal team members are Asmita Naik (team leader) and Nysret Gashi (team member). The final evaluation report will be made public. **Ask interviewees to give evidence to back up their points and specific examples to illustrate their answers.**

The project has the following main outcomes and activity areas:

Project outcomes:

- Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region.
- Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.
- Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

Annex 5.

20 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

Project work packages:

- WPI – project management and administration
- WP2 – data sharing policy and regulations
- WP3 – data harmonization
- WP4 – meta data and quality evaluation
- WP5 – dissemination (services and portal)
- WP6 – Benefits – demonstrations, pilot implementation

Preliminary Information

Name:

Agency:

Role:

Date:

Informed consent: (explain purpose of evaluation; how information will be used and anonymity of contributors in evaluation reporting)

Evaluation Questions

1. What is your **role and involvement** in the project? Please illustrate your answers with examples.

- Have you or your staff received information or support from the project, if so what type of support.

2. How **effective** was the project? Please illustrate your answers with examples.

- What did you think of the information or support received by you or your organisation?
- Were you satisfied or could it be improved in any way?
- Do you have any other feedback on what the project has or has not achieved?
- Are there any unintended consequences of the project (both positive and negative)?
- How were the issues of gender and human rights addressed by the project?

3. Do you think the project is **relevant**? Please illustrate your answers with examples.

- How does it fit with national priorities and strategies?
- Were you or your colleagues involved in the design of the project?

4. What lasting difference or **impact** has the project had on you or your organisation?

What is the most significant change you have seen as a direct result of the Project? Please illustrate your answers with examples.

- For instance, changes to legislation or policy; improved knowledge, skills among staff, changed attitudes; improved cooperation; increased operational capacity; impacts on the population as a whole in terms of increased rights, voice, accountability etc.
- If the project has led to any changes, are there any other factors or organisations that might have contributed to these changes?

5. Is the project **sustainable**? Please illustrate your answers with examples.

- If so, in what way?

- Will the activities of the project or its effects continue once it has finished?

6. If you have a wider knowledge of the project, can you comment on what factors have helped or hindered the project in being implemented **efficiently**? Are there any challenges? Please illustrate your answers with examples.

7. Are you aware of any **lessons learned** from this experience? Please illustrate your answers with examples.

8. Are you aware of any **best practices** from this experience? Please illustrate your answers with examples.

9. Do you have any **recommendations for future** work in this area?

Instrument 3: Email questionnaire for additional project staff**END EVALUATION OF REGIONAL PROJECT IMPULS (SPATIAL DATA INFRASTRUCTURE)****Background**

This is an evaluation of the Sida-funded IMPULS project which aims to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region. The project runs from 30 May 2014 to 31 December 2019 (including one year extension granted on 31 December 2018) and has a budget of 38 million SEK. It is implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior partner. The geographical scope of the project covers six countries comprising of Albania, Bosnia and Herzegovina, Kosovo²¹, North Macedonia, Montenegro and Serbia and it is implemented through eight beneficiary organisations.

The rationale for the evaluation is to carry out a final project evaluation in the last quarter of the project as it comes to an end. The purpose of the evaluation is to assist Sida and Lantmäteriet in assessing the performance of the IMPULS project, to learn from what has worked well and what challenges remain, and to assess how sustainability can best be achieved in similar future projects. The evaluation started in mid September and due to be completed by the end of December 2019. It is carried out by an independent evaluation team from consulting firm FCG Sweden. The principal team members are Asmita Naik (team leader) and Nysret Gashi (team member). The final evaluation report will be made public.

Please provide written responses by **Thursday 24 October 2019** to the evaluation team leader, Asmita Naik at the following email address: asmitanaik.consultancy@gmail.com

Responses should be provided in English. If you wish to provide a response in another language, please contact the team leader, we will do our best to accommodate your request.

Preliminary Information**Name:****Agency:****Role:****Date:**

21 This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

Informed consent: The evaluation is carried out for the purpose described above. The response you provide will be kept confidential to the evaluation team; it will not be shared with any of the organisations involved in the project without your express consent. The information provided will be analysed and used to arrive at the evaluation findings. The evaluation report will safeguard anonymity and will not attribute sources.

Do you give informed consent for the evaluation to use your response to this questionnaire? Yes or No

Guidance on answering evaluation questions

- The list below comprises 7 main evaluation questions which you are requested to answer.
- Each main question is accompanied by a subset of questions, these are intended as prompts to help think around the issues raised – you do not have to answer all these questions, you may answer whichever questions you have information on.
- Please type straight into the document adding lines and spaces as needed.
- Please provide evidence to back up the points you make, for instance, specific examples to illustrate your responses.

Evaluation Questions

1. What is your role and involvement in the project? (Briefly describe)

Answer:

2. How effective is the project? What has the project achieved?

2.1. To which extent has the project contributed to intended outcomes? What has it achieved or not achieved? You may consider the project outcomes, work packages and cross-cutting issues as detailed below.

Outcomes:

Annex 6. - Beneficiary Organisations understand how they contribute to an efficient national SDI and have a clear view of the different SDI actors' roles (user, producer and coordinator) and there is mutual respect between agencies having these roles in the region.

Annex 7. - Beneficiary Organisations are using data from multiple sources, national and regional, and using the different components in the SDI (metadata, portal, services etc.) when producing, using and providing data.

Annex 8. - Beneficiary Organisations are proactively driving the SDI-work and removing obstacles to share data in the region as well as actively developing and promoting NSDI's. Beneficiary Organisations are working in national and regional forums with different organisations as the normal way of working, using the network and roles initiated by the IMPULS project for regular meetings and ad hoc task force when needed.

Annex 9.

Work packages:

- *Work Package 1 – project management and administration*
- *Work Package 2 – data sharing policy and regulations*
- *Work Package 3 – data harmonization*
- *Work Package 4 – meta data and quality evaluation*
- *Work Package 5 – dissemination (services and portal)*
- *Work Package 6 – Benefits – demonstrations, pilot implementation*

Cross-cutting issues:

- *Gender equality - Has the project had any positive or negative effects on gender equality? Could gender mainstreaming have been improved in planning, implementation or follow up?*
- *Human rights-based approach and Sida's multi-dimensional approach to poverty Has the project had any positive or negative effects in relation to human rights, voice and accountability? In particular what difference has the project made to the population?*
- *Environment – Has the project had any positive or negative effects on the environment?*

- What other unanticipated or unexpected 'results' (not in the original plan) were achieved?

Answer:

4. Is the project efficient?

Consider the following and give specific examples to illustrate your answers:

- What were the major factors influencing the achievement or non-achievement of the outcomes?

[This includes internal issues such as management, resources, relationships, programme design/planning, monitoring and evaluation, institutional capacity as well as the external context - policy, politics, socio-economic issues; partnerships and relationships with external organisations etc.]

- Has the M&E system delivered robust and useful information that could be used to assess progress towards outcomes and contribute to learning?
- How well have partnerships and cooperation worked to fulfil the goals of the project?

- To what extent has the Swedish-funded IMPULS project coordinated with other projects funded by other donors which also provide support to the Beneficiary Organisations in relation to the same issue, in order to optimise the effects of the support provided by different donors?
- To what extent has lessons learned from what works well and less well been used to improve and adjust project/programme implementation?
- Can the costs for the project be justified by its results? To what extent were the resources and inputs converted to outputs in a timely and cost-effective manner?

Answer:

3. Is the project relevant?

Consider the following and give specific examples to illustrate your answers:

- To which extent has the project conformed to the needs and priorities of the beneficiaries and donor policies? How is the project relevant to the national, regional and Europe-wide context?
 - Assess the relevance of the project design, is the approach still relevant? Was the design based on a needs assessment and context analysis? Was the design the most appropriate way to meet the needs identified? What are the lessons learnt from the project in this respect? What collaboration and co-ordination arrangements were applied and how well did they function?
 - Assess the relevance and appropriateness of having a Swedish institutional partner in collaboration with a Croatian institution, delivering the support? What were the advantages and disadvantages of the solution chosen?
 - How does the project serve the purpose of respect for human rights, democracy, rule of law and gender equality?
- Annex 10.

Answer:

5. What is the lasting impact of the project? What is the most significant change you have seen as a direct result of the Project?

Consider the following and give specific examples to illustrate your answers:

- What is the overall impact of the programme in terms of direct or indirect, negative and positive results? What is the most significant change you have seen as a direct result of the Programme?

- INSPIRE Directive is implemented in the region, enabling the beneficiary countries to meet the EU-requirements in this area. (original impact statement)
- Interoperable content and services are delivered efficiently, supporting the development of e-government in each country as well as adding value to government and local administration, all in accordance with the Public Sector Information (PSI) Directive. (original impact statement)
- Implementation of the INSPIRE Directive, supported through this project, has contributed to the economic development, transparency of ownership and anticorruption processes, in accordance with SEE 2020 (specifically in the dimensions '*Competitiveness*', '*Effective public services*' and '*Anti-corruption*'. (original impact statement)
- Establish the extent to which there have been changes in relation to cross-cutting issues (gender equality, human rights, environment) as a result of the project?
- What are the impacts of the project on the population of the country? Are there examples of the way people's daily lives have been affected by the project in terms of enhancing their rights, giving them voice, giving them the ability to hold decision-makers to account etc.

Answer:

6. Is the project sustainable and if so, in what way?

Consider the following and give specific examples to illustrate your answers:

- Is it likely that the benefits (outcomes) of the project are sustainable?
- To what extent have the Beneficiary Organisations devoted time and resources for the completion of the project during the project time?
- What is the level of project ownership from the side of the Beneficiary Organisations – are they ready to build on the project achievements and carry on?
- Are there any areas that still need attention within the organisations? Will continued cooperation be beneficial and is there a need of future projects within this area?

Answer:

7. What are the lessons learned, best practices and recommendations for the future?

Consider the following and give specific examples to illustrate your answers:

- Does the project systematically collect feedback and recommendations from activities for beneficiaries and revise the project as needed?
- Does the project apply experiences, lessons learned and good practices in the design and planning of other projects?
- What lessons learned and best practices can be identified in the implementation of the project?
- What best practices can be identified and should be replicated in other projects/programmes?
- Do you have any recommendations for future work in this area?

Answer:

Annex 4 – Document list

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
2014			
1	May 30	IMPULS, Project proposal Final draft v 1.4	BALK1-0-00
2	October 14	1 st SC meeting in Gävle, October 2014	BALK1-1-00
2	21	IMPULS Inception report version 0.6	BALK1-1-01
4	September 8-12	Conclusion from administrator trip September 2014	BALK1-1-02
5	November 18-19	Mass valuation seminar Pristina Nov 2014	BALK1-6-01
6	25-26	Workshop Basic knowledge and stakeholder engagement Gävle Nov 2014	BALK1-6-02
7	December 2-4	GNSS seminar in Belgrade	BALK1-6-03
8	2 – 4	Address register seminar in Skopje Dec 2014	BALK1-6-04
9	8 – 12	Outcome Mapping for IMPULS step 1 Gävle Dec 2014	Powerpoint slides “Outcome Mapping for IMPULS step 1 Gävle Dec 2014”
10	16-18	Basic knowledge seminar and introduction to WP4 and 5 in Belgrade Dec 2014 version 0.6	BALK1-4-01 BALK1-5-01
2015			
11	January 13-15	Basic knowledge seminar and data sharing workshop in Sarajevo Jan 2015	BALK1-2-01
12	13-15	Workshop Hands-on training in Data Harmonisation Sarajevo Jan 2015	BALK1-3-01
13	February 16 – 19	Outcome Mapping for IMPULS step 2 Gävle Feb 2015	Powerpoint slides “Outcome Mapping for IMPULS step 2 Gävle Feb 2015”
14	March 23-24	Workshop Data sharing internal data in Sarajevo March 2015	BALK1-2-02
15	25-26	Workshop Stakeholder engagement, Sarajevo March 2015	BALK1-6-05
16	24-26	Metadata profile and test environment Banja Luka March 2015	BALK1-4-02 BALK1-5-02
17		Metadata guidelines v0.3	BALK1-4-02B
18	30 – 2/4	Second Address register seminar	BALK1-6-06

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
		Skopje March 2015	
19	April 23	Semi-annual report April – September 2015	BALK1-1-03
20	April 29	2 nd NC meeting Zagreb April 2015 Version 1.0	BALK1-1-04
21	30	2 nd Steering Committee meeting Zagreb April 2015 Final version	BALK1-1-05
22	May 24, 25-29	INSPIRE conference Mission report Lisbon May 2015	BALK1-1-06
23	June 16	Regional Cadastre and NSDI Conference	See BALK1-3-02
24	17-18	Workshop Hands on training in Data Harmonisation in Pristina June 2015	BALK1-3-02
25	24	3 rd NC meeting in Bečići September 2015	BALK1-1-07
26	September 21-25	Program Steering Committee meeting in Bečići	BALK1-1-07B
27	October 6	Awareness seminar Pristina Kosovo ²² Oct 2015	BALK1-6-07
28	November 17-19	Catalogue and view services Tirana Nov 2015	BALK1-5-03
29	17-19	Workshop Data sharing policy and regulations in Tirana November 2015	BALK1-2-03
30	17-19	Hands on training in data harmonisation Tirana Nov 2015	BALK1-3-03
31	17-19	Workshop Metadata quality second phase Tirana Nov 2015	BALK1-4-03
32	November 23	National Workshop in National Geospatial Data Infrastructure	BALK1-6-08
33	December 2-4	National workshop and Cadastre conference in Mostar December 2015	BALK1-1-08
34	14	4 th NC meeting Zagreb December 2015 version1	BALK1-1-09
35	16	Management workshop for Steering Committee in Malmö 16 Dec 2015	BALK1-1-09B
2016			
36	February 2-3	5 th NC meeting Sweden February 2016 version 1.0	BALK1-1-10 See also document

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PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
			“Collaboration process map for IMPULS towards an SDI, version 1.0”
37	22-24	National Workshop INSPIRE and Mass valuation Skopje Feb 2016	BALK1-6-09
38	March 22-23	National workshop, Law on NSDI and Land Cover in Belgrade, March 2016	BALK1-6-10
39	March 30	National workshop, SDI strategy and law-regional round table in Banja Luka March 2016	BALK1-6-11
40		Semi-annual report October 2015 – April 2016	BALK1-1-11
41	April 13	6 th NC meeting Zagreb April 2016 version 1.0	BALK1-1-12
42	April 14	4 th Steering Committee meeting Zagreb April 2016	BALK1-1-13
43	May 10-12	Workshop Data sharing policy and regulations Sarajevo May 2016	BALK1-2-04
44	10-12	Workshop Data Harmonisation Sarajevo May 2016	BALK1-3-04
45	10-12	Workshop Metadata in Sarajevo May 2016	BALK1-4-04
46	10-12	Dissemination workshop Sarajevo May 2016	BALK1-5-4
47	10-12	Benefit workshop in Sarajevo May 2016	BALK1-6-12
48	26	National Workshop Data Harmonisation and services Pristina May 2016	BALK1-6-13
49	June 15	7 th NC meeting in Opatija and Cadastre conference June 2016, version 1.0	BALK1-1-14
50	July 4-8	IMPULS road-trip to Skopje, Pristina and Tirana in July 2016	BALK1-1-15
51	August 22-25	IMPULS road-trip to Belgrade and Podgorica in August 2016	BALK1-1-16
52	September 5-8	IMPULS road-trip to Sarajevo and Banja Luka in September 2016	BALK1-1-17
53	26-30	INSPIRE conference and IMPULS meeting in Barcelona September 2016	BALK1-1-18
54	October	Semi-annual report May – October 2016	BALK1-1-19
55		Analyse and recommendations of IMPULS road-trips 2016	BALK1-1-20

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
56	18-19	Workshop in Durres 18 – 19 Oct 2016	BALK1-1-21
57	20	8 th NC meeting Durres Oct 2016	BALK1-1-22
58	Nov 30	National workshop - “Metadata” Prishtina	BALK1-6-14
59	Dec 13	5 th Steering Committee meeting Zagreb April 2016	BALK1-1-23
2017			
60	Feb 8-9	ASIG – NWS for Metadata and Quality Validation	BALK1-26-1
61	Feb15-17	NWS - for creation of metadata for all NSDI Subjects and to update list for responsible institutions of NSDI	BALK1-26-2
62	17	Discovery Service - requirements	BALK1-1-24
63	21-22	9 th NC meeting Gävle 2017	BALK1-1-25
64	March 9	New Action plan and revised budget 2017-2018 Final	BALK1-1-26 BALK1-1-26B with appendix
65	21-23	NWS regarding SDI and INSPIRE awareness and metadata published	BALK1-26-3
66	April	Semi-annual report November 2016 – April 2017	BALK1-1-27
67	11	10 th NC meeting Zagreb April 2017	BALK1-1-28
68	12	6 th Steering Committee meeting Zagreb April 2016	BALK1-1-29
69	25-27	NWS on Data Harmonisation for AREC and NSDI subjects in Macedonia	BALK1-26-4
70	27-28	NWS - National Spatial Data Infrastructure in Service of Republic of Srpska Development	BALK1-26-5
71	May 16 – 17	NWS Law on NSDI, metadata, technical specification of Geoportal	BALK1-26-6
72	30-31/5 and 1/6	NWS for raising awareness on development of view and download services	BALK1-26-7
73	June 7	11 th NC meeting Skopje June 2017	BALK1-1-30
74	28 - 29	NWS on SDI, INSPIRE awareness and metadata published	BALK1-26-8
75	29 – 30	The 3 rd International Conference on Eurasian SDI	BALK1-1-31
76	August 28-	IMPULS road-trip to Tirana, Pristina and Skopje in August 2017	BALK1-1-32
77	Sep 4 - 9	12 th NC meeting and INSPIRE WS and conference in Kehl and Strasbourg Sep 2017	BALK1-1-33
78	18 - 22	IMPULS road-trip to Belgrade and Podgorica in September 2017	BALK1-1-34

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
79	27-28	NWS on Geoportal and Geoserver presentation and data harmonisation	BALK1-26-9
80	October 2 -	IMPULS road-trip to Sarajevo and Banja Luka in October 2017	BALK1-1-35
81	15	Analyse and recommendations from the IMPULS road-trips 2017	BALK1-1-36
82	18	6 th Semi-annual report May – October 2017	BALK1-1-37
83	18	13 th NC meeting in Zagreb October 2017	BALK1-1-38
84	19	7 th SC meeting in Zagreb October 2017	BALK1-1-39
85	Nov 14	IMPULS Workshop on Geoportal	BALK1-26-10
	2018		
86	January 16	NWS - Presentation of the law on Spatial Data Infrastructure, Mostar	BALK1-26-11
87	29 – 1 Feb	14 th NC meeting in Gävle January 2018	BALK1-1-40
88	February 8	Raise awareness, User agreements, licensing and copyrights	BALK1-26-12
89	March 27-29	WS on Developed coordination processes and introduction to work with Data Sharing models, barriers and own work	BALK1-26-13
90	April	8 th Semi-annual report November 2017 – March 2018	BALK1-1-41
91	11	15 th NC meeting in Zagreb October 2017	BALK1-1-42
92	12	8 th SC meeting in Zagreb October 2017	BALK1-1-43
93	17-18	Awareness about NSDI and presentation of National Geoportal and it's Services	BALK1-26-14
94	23-24	BESTSDI conference	BALK1-1-44
95	May 15-16	National Workshop on Data Sharing Model, KCA	BALK1-26-15
96	16	IMPULS presentation at EuroGeographics conference in Leuven	BALK1-1-45
97	23 - 24	National Workshop on Data Sharing Model, RGA	BALK1-26-16
98	29 - 31	IMPULS meeting and 11 th Regional Conference on Cadastre and Spatial Infrastructure	BALK1-1-46
99	June 12 - 13	Awareness about NSDI and Metadata production	BALK1-26-17

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
100	September 4-5	NWS, Data Sharing Model	BALK1-26-18
101	6	NWS, SDI Raising awareness	BALK1-26-18B
102	October	9 th Semi-annual report April - September 2018	BALK1-1-47
103	17	16 th NC meeting in Zagreb October 2018	BALK1-1-48
104	18	9 th SC meeting in Zagreb October 2018	BALK1-1-49
105	31-1 (Nov)	Project meeting at GARS	BALK1-26-19
106	December 5	NWS, FGA metadata editor	BALK1-26-20
107	6	NWS, FGA raising awareness	BALK1-26-21
	2019		
108	January 16-17	17 th NC meeting in Gävle, January 2019	BALK1-1-50
109	February 27-28	Standardization and Harmonization of Spatial Data	BALK1-26-22 BALK1-26-23
110	March	10 th Semi-annual report November 2018 – March 2019	BALK1-1-51
111	28	NWS, Metadata Editor, “Encourage other Stakeholders to produce metadata“	BALK1-26-24
112	April 15	18 th NC meeting in Skopje April 2019	BALK1-1-52
	16	10 th SC meeting in Skopje April 2019	BALK1-1-53
113	June 10-12	Reflections on 4th Regional Workshop Risk Mapping and IPA DRAM in Roma	BALK1-1-54
114	25-26	NWS, Data sharing and Business Model	BALK1-1-25
115	25-27	Support to the development of an IT-strategy at ASIG	BALK1-1-26
116	July 1 - 5	NWS, Training in Data Harmonisation for Land Cover and Data Product Specifications	BALK1-1-27
		Inspire mr_indicators template v_3-5	
		Inspire revised template for country report, 2013	
		IMPULS NSDI evaluation and spider diagrams (current)	
117	Sept	An approach to the development of a	Draft and final

PROJECT DOCUMENTS			
No.	Date	Document name	Report number or document type
		regional SDI – experiences from the IMPULS project (IMPULS book)	
OTHER DOCUMENTS			
		Various documents on Sida's multi-dimensional approach to poverty	
		DIRECTIVE 2007/2/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)	
		Abroad, Newsletter of Kadaster International, June 2019	
		Overview of International Projects Western Balkan (from Kadaster international)	
		INSPIRE conference 2014, Inspire for good governance website	
		EC report COM (2016)478; Executive Summary SWD (2016) 243)	

* Yellow highlights indicates key semi-annual progress reports

Annex 5 – List of Interviewees

* Note – Sex of interviewee denoted by honorific titles i.e. Mr. or Ms.

1. Sida

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
SIDA/Ms. Nina Geladze Ekstedt, Sida	Programme Manager/Policy Adviser	Skype and face-to-face interviews

2. Lantmäteriet

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
Lantmäteriet / Mr. Anders Rydén	Project Manager	Skype and face-to-face interviews
Lantmäteriet / Mr. Lennart Johannsen	Project Director	Skype and face-to-face interviews
Lantmäteriet / Mr. Bjorn Jonsson	Lantmäteriet Expert WP3	Email questionnaire

3. State Geodetic Administration of the Republic of Croatia (SGA)

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
SGA / Mr. Damir Šantek	Steering Committee member	Email questions
SGA / Ms. Sanja Zekušić	Coordination Adviser	Skype interview
SGA / Mr. Igor Vilus	Expert	Email questionnaire
SGA / Mr. Saša Cvitković	Expert	Email questionnaire

4. ALBANIA - State Authority for Geospatial Information (ASIG)

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
ASIG / Mr. Lorenc Cala	Steering Committee Member	Email questions
ASIG / Mr. Dritan Prifti	National Coordinator	Skype interview

5. ALBANIA - Agency of State Cadastre (SAC) (former Immovable Property Central Registration Office of the Republic of Albania – IPRO)

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
SAC / Mr. Xhevair Llakaj	National Coordinator	Skype interview

6. FEDERATION BOSNIA AND HERZEGOVINA - Federal Administration for Geodetic and Property Affairs (FGA)

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT	CONSULTATION METHOD
FGA / Mr. Zeljko Obradovic	Steering Committee Member	Face-to-face interview
FGA / Ms. Slobodanka Ključanin	National coordinator	Email questionnaire
FGA / Mr. Nedim Hadžiosmanović	Trainee	Email questionnaire
FGA / Mr. Hajrudin Kaljun	Trainee	Email questionnaire
FGA / Mr. Nikola Cvjetković	Member of IMPULS team (metadata)	Email questionnaire
FGA / Mr. Tomislav Tomić	Member of IMPULS team (harmonisation)	Email questionnaire

7. FEDERATION BOSNIA AND HERZEGOVINA - Republic Authority for Geodetic and Property Affairs of the Republic of Srpska (GARS) and External Partners

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT OR JOB TITLE FOR EXTERNAL STAKEHOLDERS	CONSULTATION METHOD
GARS / Ms. Bosiljka Predragović	Steering Committee Member	Face-to-face interview
GARS / Mr. Zoran Milovanovic	National Coordinator	Face-to-face interview
RS Civil Protection Authority / Mr. Darko Ljuboje	Deputy Director	Face-to-face interview

8. KOSOVO²³ - Kosovo Cadastral Agency (KCA) and External Partners

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT OR JOB TITLE	CONSULTATION METHOD
KCA / Mr. Avni Ahmeti	Steering Committee Member	Face-to-face interview
KCA / Mr. Muzafer Çaka	National Coordinator	Skype and face-to-face interviews
KCA / Mr. Denis Pitarka	Public Relation Specialist	Email questionnaire
KCA / Mr. Amir Sogojeva	Head Of Address Register System	Email questionnaire
KCA / Mr. Nehat Maqastena	IT Expert	Email questionnaire
KCA / Mr. Besfort Thaqi	IT Expert	Email questionnaire
KCA / Ms. Learta Kovaci	Local Trainee GIS Expert	Email questionnaire and interview
KCA / Mr. Armend Gashi	Local Trainee GIS Expert	Email questionnaire and interview
KCA / Ms. Ardita Fazliu Megjuani	Local Trainee GIS Expert	Email questionnaire and interview
Kosovo ²⁴ Agency of Statistics / Mr. Idriz Shala	GIS Expert for theme Population Distribution	Face-to-face interview
Geological Service of Kosovo ²⁵ , Ministry of Economic Development / Mr. Naser Bajraktari	High Official	Face-to-face interview

²³ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

²⁴ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

²⁵ This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo Declaration of Independence.

9. MONTENEGRO - Real Estate Administration of the Republic of Montenegro (REA)

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT OR JOB TITLE	CONSULTATION METHOD
REA / Mr. Dragan Kovačević	Steering Committee Member	Face to face interview
REA / Mr. Božidar Pavićević	National Coordinator	Skype interview
REA / Ms Mirjana Ljumović	Former National Coordinator, data sharing, coordination with other beneficiaries from Montenegro	Email questionnaire
REA / Ms. Snežana Rakočević	Data dissemination	Email questionnaire
REA / Ms. Sanja Đurišić	Data harmonisation	Email questionnaire
REA / Ms. Slađana Srbljanović	Metadata and quality	Email questionnaire
REA / Ms. Vanja Zejak	Local trainee, project administration, translation	Email questionnaire
REA / Ms. Ana Šofranac	Local trainee, IT support with web resources and services	Email questionnaire

10. NORTH MACEDONIA - Agency for Real Estate Cadastre (AREC) and External Partners

NAME OF AGENCY/KEY CONTACT PERSON	ROLE IN IMPULS PROJECT OR JOB TITLE	CONSULTATION METHOD
AREC / Mr.Boris Tundzev	Steering Committee Member	Face-to-face interview (during field visit)
AREC / Ms. Lidija Krstevska	National Coordinator	Skype and face-to-face interviews
AREC / Ms. Sonja Dimova	Responsible for WP2	Email questionnaire and interview
AREC / Mr. Sasho Dimeski	Responsible for WP3	Email questionnaire
AREC / Mr. Vlatko Dimovski	Responsible for WP5	Email questionnaire
AREC / Ms. Suzana Kirandziska	WP 4	Email questionnaire
AREC / Mr. Verica Mukanova	Responsible for WP3	Email questionnaire
AREC / Ms. Brankica Stojanovska	WP3	Email questionnaire
AREC / Mr. Srechko Tasevski	WP 3	Email questionnaire
AREC / Ms. Sanja Volkanovska	WP 6	Email questionnaire

AREC / Mr. Victorio Jakovievski	Local Trainee	Face-to-face interview
Centre of crises management / Mr. Igorche Karafilovski	Deputy Head of Department	Email questionnaire
Ministry of Environment / Mr. Chaslav Toshevski	Head of Unit	Face to face interview
Ministry of interior / Ms. Gordana Sharkovska Bujarovska	Head of Unit	Face to face interview
Agency for Spatial Planning / Ms. Melita Javenski	Adviser	Face to face interview
Agency for Spatial Planning / Ms. Lidija Trpenoska-Simonovik	Adviser Coordinator	Face to face interview
State Statistical Office / Mr. Goran Kirandziski	Head of Unit	Face to face interview
Faculty of Civil Engineering / Mr. Zlatko Srbinoski	Professor	Face to face interview
Geological Institute / Mr. Bojan Tasevski	Senior Geo Informatics and System Engineer at Geological Survey	Face to face group interview

11. SERBIA - REPUBLIC GEODETIC AUTHORITY (RGA) and External Partners

NAME OF AGENCY/PERSON	ROLE IN IMPULS PROJECT OR JOB TITLE	CONSULTATION METHOD
RGA / Mr. Darko Vucetic	National Coordinator	Skype and face-to-face interviews
RGA / Ms. Ivana Strbac	NSDI Analytics and Policy expert	Email questionnaire and face-to-face interview
RGA / Mr. Nemanja Paunic	Local Trainee / Technical leader	Face-to-face interview
RGA / Ms. Vasilija Zivanovic	Legal and Policy expert	Face-to-face interview
Ministry of Interior / Mr. Miloje Milojevic	IT and GIS	Face-to-face interview

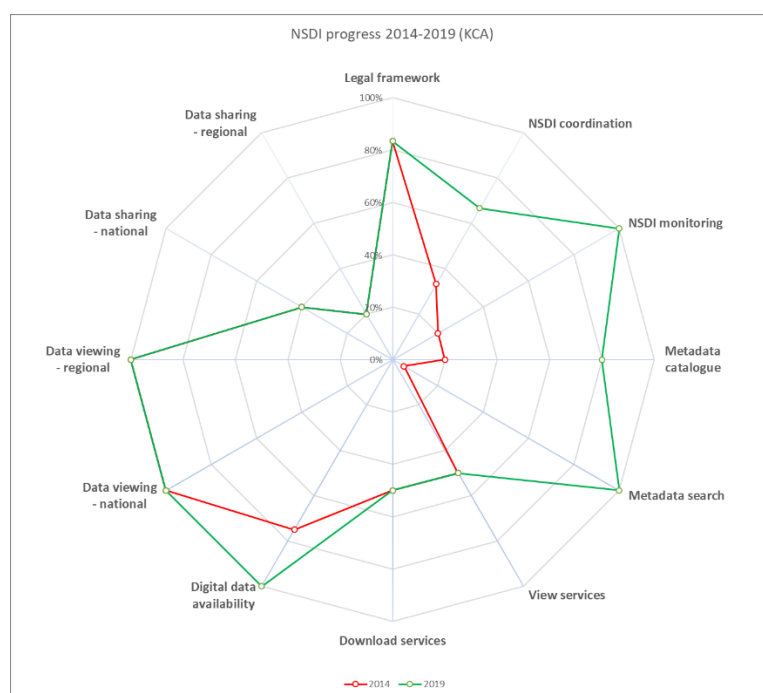
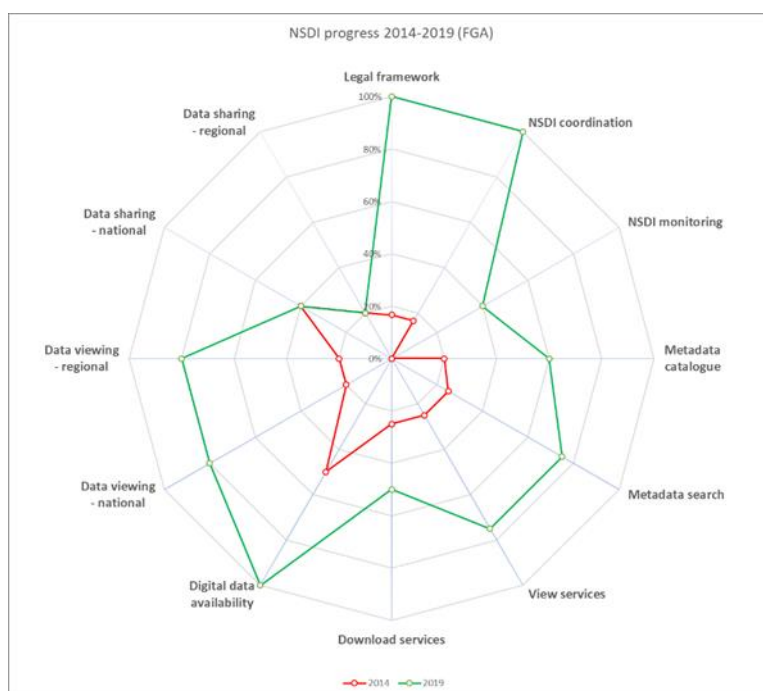
12. International Stakeholders

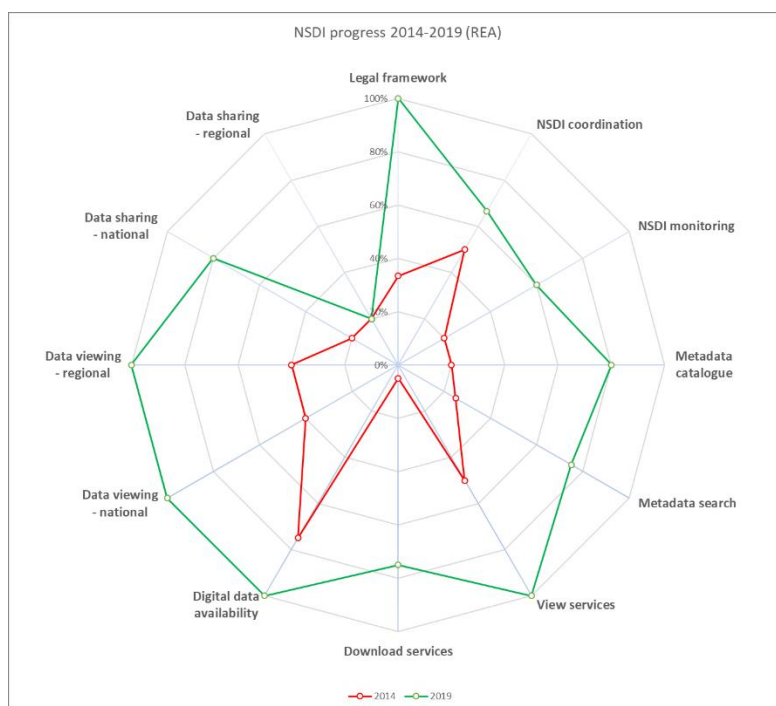
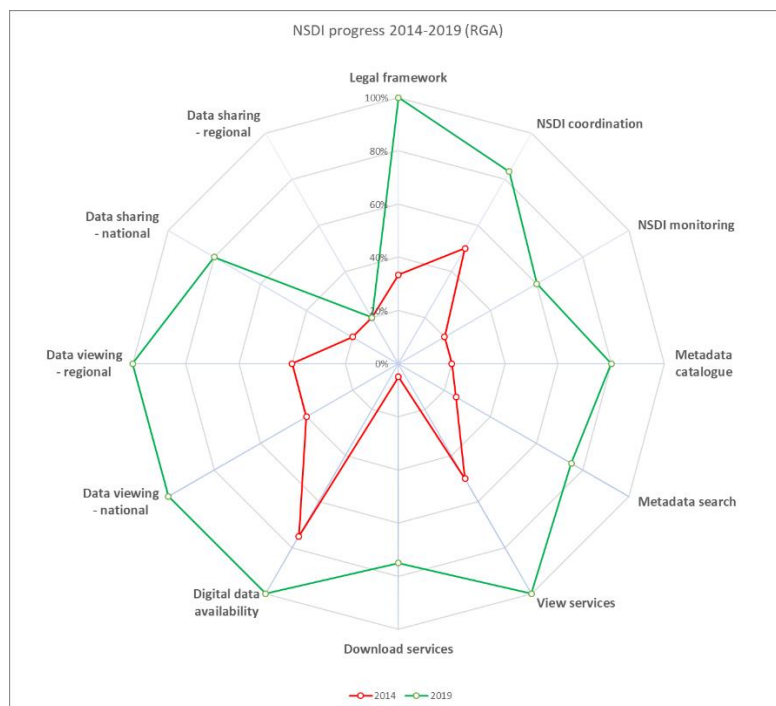
NAME OF AGENCY/PERSON	JOB TITLE	CONSULTATION METHOD
Kadaster International (Dutch Cadastre) / Ms. Paula Dijkstra	Regional Manager	Skype interview
IPA-DRAM/ Ms. Stefania Traverse	Programme Manager	Skype interview

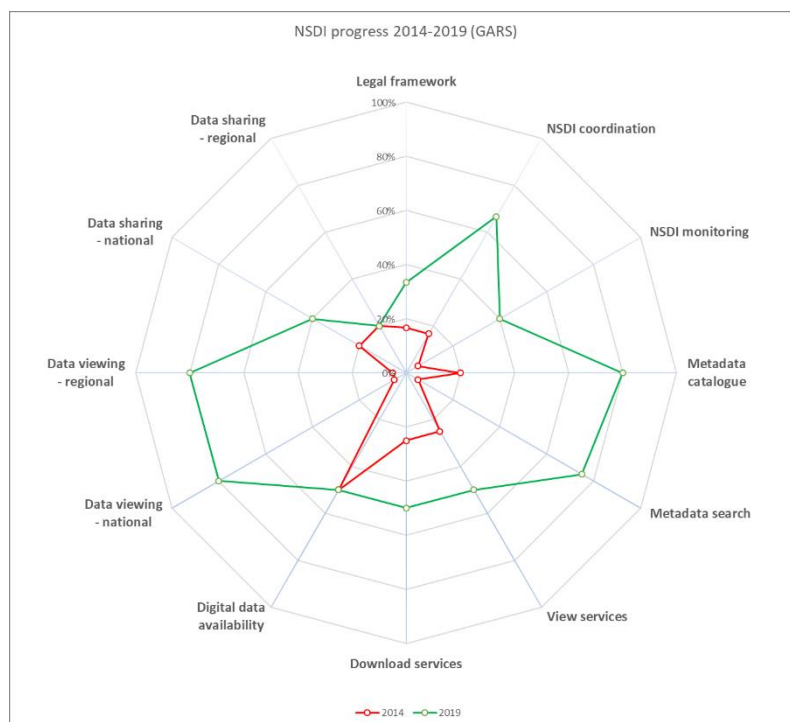
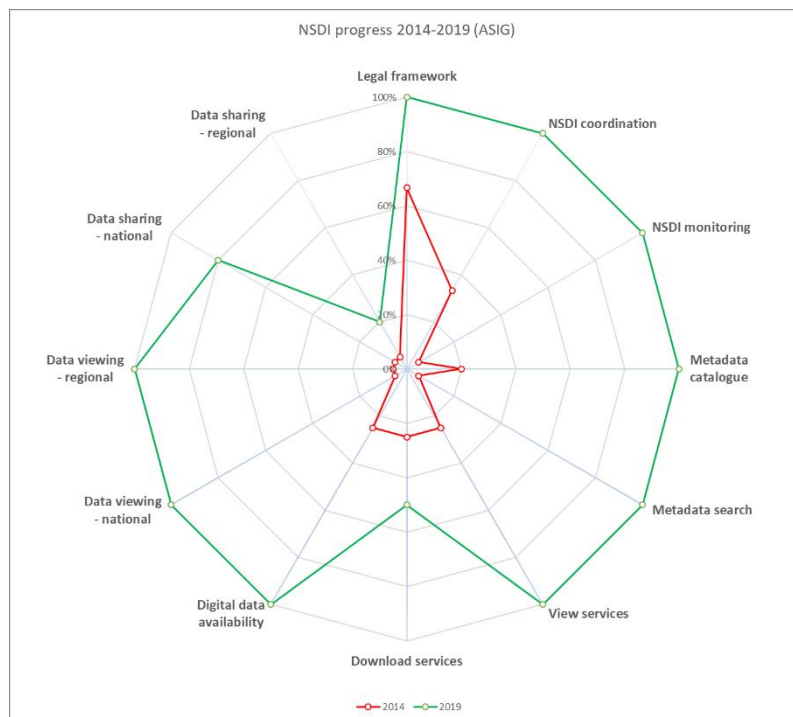
Kartverket (Norwegian Cadastre) / Mr. Helge Onsrud	Advisor to International Department	Skype interview
World Bank / Ms. Aanchal Anand	Team Leader for Real Estate Cadastre and Geospatial Infrastructure Project	Skype interview

Annex 6 – Project NSDI Monitoring Data

A) Project NSDI Monitoring Graphs by Country







B) Project NSDI Monitoring Indicators

Legal framework

A legal framework that indirectly regulates the NSDI exists
 Work developing a dedicated NSDI law has started and is in progress
 Work developing a dedicated NSDI law has started and is at an advanced stage
 A draft law has been developed and is awaiting to be put in front of the parliament
 A draft NSDI law has been put in front of the parliament and is awaiting approval
 A NSDI law has been formally adopted by the parliament

NSDI coordination

A coordinating body is indirectly identified based on existing regulations
 A coordinating body has been formally identified either by law or some other means
 A coordinating structure has been established (not only stated in law or some other type of documents)
 A coordinating unit has been established within the coordinating body (formally or informally)
 Contact persons within each organisation involved in the NSDI have been identified
 Working groups are actively working on different issues related to the establishment of the NSDI

NSDI monitoring

Relevant spatial data producers that may have data and services within the scope of the NSDI has been identified and listed
 Data and services within the scope of the NSDI for each relevant spatial data producer has been identified and listed
 The status for the data and services within the scope of the NSDI for each relevant spatial data producer has been assessed and documented
 The list of spatial data and services within the scope of the NSDI is used to monitor the progress of the NSDI implementation
 The monitoring results are made publicly available on a dedicated web site or through any other suitable communication channel

Metadata catalogue

One or several [theme specific] organisational metadata catalogues has been developed and made available
 A cross-organisational “national” metadata catalogue has been identified (formally or informally)
 The national metadata catalogue is used to host metadata also from other organisations (3 or more), apart from the hosting organisation
 Other organisations (1-3) are independently publishing data on the national metadata catalogue

Several other organisations (>3) are independently publishing data on the national metadata catalogue

Metadata search (portal)

Metadata in the metadata catalogue can be searched and viewed through a dedicated search interface

The search interface allows viewing of metadata in a readably and user-friendly matter

The metadata search interface is easy to find, understand and publicly available on a web page

The search interface is frequently used by different organisations inside and outside of the government

View services

One or several [theme specific] organisational map viewers have been developed and made available

Some organisations (1-3) have developed and made available standardised view services for provision of spatial data

Several organisations (>3) have developed and made available standardised view services for provision of spatial data

Most spatial data are available through standardised view services

Download services

One or several organisations make spatial data available through different types of ftp-sites

Some organisations (1-3) have developed WFS and/or ATOM services for provision of spatial data

Several organisations (>3) have developed WFS and/or ATOM services for provision of spatial data

Most spatial data are available through standardised download services

Digital data availability

Some spatial data is in a digital format

Some organisations (1-3) have much of their spatial data in digital format

Several organisations (>3) have much of their spatial data in digital format

Most spatial data are available in digital format

Data viewing - national

View services are generally shared on an informal basis only or by permission given from case-to-case

View services are also shared based on bi-lateral agreements between two organisations

View services are shared based on a multilateral agreement among three or more organisations

View services are freely available for governmental organisations without any further agreements

View services are freely available for all actors (open data) without any further agreements

Data viewing - regional

View services are generally shared on an informal basis only or by permission given from case-to-case

View services are also shared based on bi-lateral agreements between two organisations

View services are shared based on a multilateral agreement among three or more organisations

View services are freely available for governmental organisations without any further agreements

View services are freely available for all actors (open data) without any further agreements

Data sharing (download) - national

Spatial data is generally shared on an informal basis only or by permission given from case-to-case

Spatial data is also shared based on bi-lateral agreements between two organisations

Spatial data is shared based on a multilateral agreement among three or more organisations

Spatial data is freely available for governmental organisations without any further agreements

Spatial data is freely available for all actors (open data) without any further agreements

Data sharing (download) - regional

Spatial data is generally shared cross-border only by permission given from case-to-case

Spatial data is also shared cross-border based on bi-lateral agreements between organisations in respective country

Spatial data is shared cross-border based on a multilateral agreement among three or more organisations

Spatial data is freely available cross-border for governmental organisations without any further agreements

Spatial data is freely available cross-border for all actors (open data) without any further agreements



End Evaluation of Regional Project Impuls (Geo-Spatial Data Infrastructure)

This is a final independent evaluation of the IMPULS project which aimed to establish core national spatial data infrastructures (NSDIs) in the Western Balkan region with the ultimate goal of supporting e-governance, economic development and enhanced cooperation and transparency. This Sida-funded project was implemented by Lantmäteriet, the Swedish government mapping, cadastral and land registration authority in cooperation with the State Geodetic Administration of the Republic of Croatia (SGA) as the junior project partner. It was implemented over a five year period from 2014 to 2019 in six Balkan countries and involved eight beneficiary organisations. The evaluation found the project to be highly relevant, particularly in terms of helping to bring beneficiary countries into compliance with the EU INSPIRE Directive. The project was very ambitious and despite implementation challenges, it succeeded in delivering key outcomes which have laid the groundwork for a strengthened system of NSDI in the region.

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