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Academia-Business Survey on Needs and Cooperation in Field of Spatial Data Infrastructures

BESTSDI / EuroSDR

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Survey Report

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"Academia-Business survey on needs and cooperation in field of Spatial Data Infrastructures"

This survey was undertaken as part of the Erasmus+ project BESTSDI – 'Western Balkans Academic Education Evolution and Professional's Sustainable Training for Spatial Data Infrastructures' together with EuroSDR.

Table of contents

ACADEMIA-BUSINESS SURVEY ON NEEDS AND COOPERATION IN FIELD OF SPATIAL DATA INFRASTRUCTURES

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Erasmus+ project BESTSDI –
'Western Balkans Academic Education Evolution and Professional's Sustainable Training for Spatial Data Infrastructures'
together with
EuroSDR.

With 2 figures and 16 tables

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Index of Figures

Index of Tables

INTRODUCTION

This survey is part of the Erasmus+ project 'Western Balkans Academic Education Evolution and Professional's Sustainable Training for Spatial Data Infrastructures' – BESTSDI. The wider objectives of BESTSDI project are to improve the quality of higher education in Geographical Science and Technology field, Spatial Data Infrastructure (SDI) and geodesy, to enhance education relevance for the labour market and society and to improve the level of competences and skills in Higher Education Institutes by developing new and innovative education programs within the field of SDI[1]. The specific BESTSDI project objectives are to develop, test and adapt new curricula, courses, learning materials and tools within the field of SDI. In doing so, existing undergraduate and graduate geodesy and geoinformatics curricula in academic institutions in the Western Balkan region will increase to higher levels, recognising the high importance of geospatial data for modern society and its development.

Having in mind that the establishment of SDI in Europe was strongly driven in past 12 years by the INSPIRE Directive, which period of implementation will expire in 2020, we have witnessed great effort towards the establishment of National SDIs and fulfilling the INSPIRE Directive requirements. Today we are aware that SDI is much more than the establishment of National SDI and serves as a platform for numerous concepts aimed to address societal challenges based on use of geospatial data like Smart cities, Intelligent Transportation Systems, Precise farming, Sustainable environment, etc. It has also become evident, that beside governmental authorities other two major stakeholder groups, business and academic sector should take a more active role in further development of SDI at all administrative levels. In this context relations between academia and business sector regarding SDI educational and development needs and expectation of both sides are still not satisfactorily identified and described.

The aim of this survey is to identify the needs and expectations of academia and business stakeholders regarding the quality of present higher education in Spatial Data Infrastructures, to identify the expectations of the private sector on knowledge and skills provided by academic institutions in order to support the labour market, to identify new forms of future cooperation in educational and research process and the expectations of academia and private sector in further development of SDI.

Figure 1: Start-page of the survey and invitation to participate

[1] With spatial data infrastructure (SDI) we mean a framework facilitating the sharing, exchanging, searching and using geospatial data among public authorities, private sector companies, NGOs and citizens.

Recognizing that mentioned questions are not only relevant for Western Balkan region, BESTSDI Project has conducted this survey in cooperation with the EuroSDR - European Spatial Data Research network – at European level in order to get a more comprehensive and wider picture on raised questions. The questionnaire was sent to potential stakeholders in Western Balkan and the European Union, and was prepared and distributed in Albanian, Croatian, English, Macedonian, and Serbian languages. The questionnaire consisted of 19 questions grouped in 6 parts: Your organisation, Knowledge and skills provided by academic institutions in field of SDI, Academia-Business cooperation and its influence on labour market, Future of SDI, Hampering factors, and Conclusion.

The results refer to the situation of June 2019.

The survey results could contribute to a better matching between offered SDI-education by academia and the needs of the business sector and other societal sectors. In this way, more tailored SDI-courses could be developed.

The results of the survey were presented on regional level at the Final conference of BESTSDI project held 3 September 2019 in Sarajevo (Bosnia and Herzegovina), and the 135th Board of Delegates meeting in Nicosia (Cyprus).

PART 1: YOUR ORGANISATION

This introductory part 1 consists of five questions.

1. Your organisation is located in which country?

Country	**Answers**	**%**
Albania	17	12,7%
Austria	1	0,7%
Belgium	1	0,7%
Bosnia and Herzegovina	23	17,2%
Croatia	43	32,1%
Cyprus	1	0,7%
Czechia	1	0,7%
Estonia	1	0,7%
Finland	1	0,7%
France	1	0,7%
Germany	1	0,7%
Italy	2	1,5%
Kosovo	10	7,5%
Montenegro	9	6,7%
Netherlands	1	0,7%
North-Macedonia	9	6,7%
Serbia	4	3,0%
Slovenia	2	1,5%
Spain	2	1,5%
Sweden	2	1,5%
Turkey	1	0,7%
United Kingdom	1	0,7%
	134	**100,0%**

Table 1: Country and number of participating organisations

In total, responses from 134 organisations were received of which 72 organisations were from the Western Balkan and 62 were from the European Union. The highest number of responses from the Western Balkan region is from Bosnia & Herzegovina, but also the numbers from Albania, Kosovo, North Macedonia and Montenegro were also significant. Outstanding is the high number of responses from Croatia (43). It is worth mentioning that the 19 other responses from the European Union are from 14 other EU countries.

2. *How can you your organisation be best characterized?*

	Number	%
Public authority – National administration (e.g. Ministry)	28	21%
Public authority – Local administration (e.g. cities, municipalities)	14	10%
Public entity - National Mapping Agencies, Cadastre, Land Registry	17	13%
Private – entity	9	7%
University / Higher Education institute	28	21%
Research institute	2	1%
Private company – Land Surveying company/consultant	17	13%
Private company – Geoinformatic company/consultant	9	7%
Private company – IT company/consultant	3	2%
Private – Other (owned by the state)	4	3%
Non-Governmental Organisation (NGO) / Not-For-Profit Organisation	2	1%
Network associations / chambers	0	0%
Other: *Secondary School*	1	1%
	134	**100%**

Table 2: Characterization of the participating organisations

The Figure 2 below is the result when classifying the responses into public authority, university/research institution, private company/entity, and NGO and other. The result is a good balance of responses from Public authorities, Private companies, and academia/research institutions.

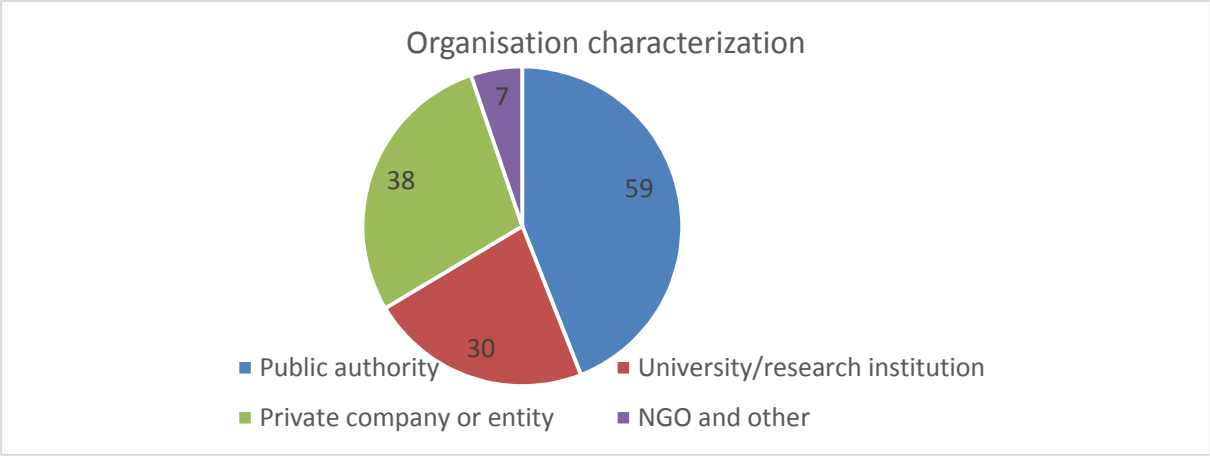

Figure 2: Characterization of participating organisations grouped into four main classes

3. How can the role of your organisation in the context of SDI be best described?

	Number	%
End User	43	18,9%
Producer	56	24,7%
Provider	17	7,5%
Manager	3	1,3%
Value added reseller	5	2,2%
Coordinator	14	6,2%
Policy maker	8	3,5%
Decision maker	5	2,2%
IT developer	3	1,3%
Expert (Analyst, Researcher)	24	10,6%
Educator / Capacity builder	25	11,0%
Professional	21	9,3%
Other: *(IT programer)*	3	1,3%
	227	**100,0%**

Table 3: Role of the participating organisations in the context of SDI

The overall result is a good distribution covering all categories: End user (19%), Producer (25%), Provider (8%), Expert (11%), Professional (9%) and Educator (11%). The result could be biased to who the questionnaire was sent.

4. Does your organisation offer teaching related to SDI?

	All	%	EU	CRO	WB
Yes	67	50%	63%	47%	49%
No	63	47%	37%	47%	50%
Do not know	4	3%	0%	6%	1%
	134	**100%**			

Table 4: Number of participating organisations offering teaching related to SDI
(EU: European Union; CRO: Croatia; WB: Western Balkan)

If YES – Please specify:
The respondents could select all the relevant ones.

	Number	%
Spatial Data Infrastructures	41	11,5%
Geodesy	42	11,8%
Geoinformatics	35	9,8%
Land Surveying	34	9,5%
Earth Observation and Remote Sensing	31	8,7%
Cartography	39	10,9%
GIS	65	18,2%
Other GI-related subjects	21	5,9%
Other:		
GIS in hydrotechnics	1	0,3%

Maritime	1	0,3%
production of personal documents, records on migration, refugees	1	0,3%
No	46	12,9%
	357	**100,0%**

Table 5: Fields in which teaching related to SDI is offered

If teaching is offered, then the GIS subject is the most covered. It is remarkable to mention that SDI is still not well recognized as an 'independent' subject of education.

5. On which sector(s) is/are your organisation focusing?

The respondents could select up to a maximum of three sectors

	Number	**%**
Agriculture	12	4,7%
Architecture and engineering	13	5,0%
Construction and civil engineering	34	13,2%
Education	24	9,3%
Emergency management	4	1,6%
Energy supply	2	0,8%
Environment	28	10,9%
Forestry	6	2,3%
Health	0	0,0%
ICT	9	3,5%
Insurance	1	0,4%
Media	0	0,0%
Mining	6	2,3%
Real estate	20	7,8%
Research	20	7,8%
Spatial Planning	41	15,9%
Telecommunications	4	1,6%
Tourism	3	1,2%
Transportation	9	3,5%
Water supply/management	9	3,5%
Other:		
Maritime	2	0,8%
Mine	3	1,2%
Geodesy	7	2,7%
Do not know	1	0,4%
	258	**100,0%**

Table 6: Sectors on which the organisations are focusing

Of those organisations that responded to this questionnaire, it appeared that there is no dominant sector on which they are focussing on. The most frequently mentioned sectors are Spatial Planning (16%), Construction and Civil Engineering (13%), and Environment (11%). The responding organisations do relatively not focus on ICT or management studies (energy, telecommunications, transportation water supply/management, management). This result could be biased by the distribution to who the questionnaire was sent.

PART 2: KNOWLEDGE AND SKILLS PROVIDED BY ACADEMIC INSTITUTIONS IN FIELD OF SPATIAL DATA INFRASTRUCTURE

Part 2 only consists of one question.

6. How necessary are the following competences for your organisation? Choose only one option for each competence.

Competences		**Not necessary**	**Somewhat necessary**	**Very necessary**
6.1 Conceptual Foundations Competences - Understand basic elements of geographic information - Understand basic spatial relationships - Understand imperfections in spatial information - Understand the concepts of data ontology - Understand the concepts of data sharing	**All**	**1%**	**21%**	**78%**
	EU	0%	11%	89%
	CRO	0%	26%	74%
	WB	1%	21%	78%
6.2 Geospatial Data competences - Understanding Earth geometry - Working with land administration systems - Using georeferencing systems - Understanding specific geodetic datums - Understand map projections - Assess data quality - Land surveying and GPS - Digitising - Collecting field data	**All**	**1%**	**24%**	**75%**
	EU	0%	5%	95%
	CRO	0%	28%	72%
	WB	3%	26%	71%
6.3 Earth Observation and photogrammetry - Applying aerial imaging and photogrammetry technologies - Applying satellite Remote sensing technologies - Applying Unmanned Aerial Vehicles	**All**	**4%**	**33%**	**63%**
	EU	0%	32%	68%
	CRO	5%	47%	48%
	WB	6%	25%	69%
6.4 Cartography and visualization Competences - Preparing data for map production - Designing maps - Choosing adequate graphic representations - Producing maps - Using and evaluating maps	**All**	**2%**	**32%**	**66%**
	EU	0%	32%	68%
	CRO	0%	33%	67%
	WB	4%	31%	65%
6.5 Analytical Methods Competences - Apply query operations - Measure basic geometric properties - Use basic analytical operations - Analyse spatial data; Analyse surfaces - Use spatial statistics and geostatistics - Apply spatial regression - Data mining - Analyse networks	**All**	**6%**	**30%**	**64%**
	EU	5%	21%	74%
	CRO	9%	35%	56%
	WB	4%	29%	67%

Competences		Not necessary	Somewhat necessary	Very necessary
6.6 Design Aspects Competences - Define Geographic information project - Planning project resources - Applying project management skills - Designing databases - Designing system architectures - Analysis design - Application design - Implementing system	**All**	**5%**	**35%**	**60%**
	EU	0%	32%	68%
	CRO	11%	33%	56%
	WB	3%	37%	60%
6.7 Data modelling Competences - Know about storage and retrieval structures - Understand database Management systems - Know about tessellation data models - Differentiate vector and object data models - 3D modelling - Temporal phenomena	**All**	**4%**	**30%**	**66%**
	EU	0%	11%	89%
	CRO	9%	28%	63%
	WB	3%	36%	61%
6.8 Data manipulation - Transforming data representations - Generalise and aggregate data - Transaction management	**All**	**1%**	**30%**	**69%**
	EU	0%	11%	89%
	CRO	2%	33%	65%
	WB	1%	32%	67%
6.9 Infrastructure & Platforms Competences (incl. metadata, standards, services) - Being familiar with SDI concepts and practices - Applying SDI concepts into practice - Assessing SDI - Implementing and exploiting Mobile GIS - Managing metadata - Developing web portals and geoportals - Understanding relevant web platforms with SDI web services - Understanding SDI service components - Implementing services (discovery, view, download, transformation, web processing) - Being familiar with Open Source software, Cloud computing and Internet of Things - Being familiar with Sensor Web Enablement and Linked Data - Being familiar with key spatial data standards - Being familiar with exchange specifications and/or transport protocols	**All**	**3%**	**39%**	**58%**
	EU	0%	32%	68%
	CRO	9%	49%	42%
	WB	0%	35%	65%

Competences		Not necessary	Somewhat necessary	Very necessary
6.10 Society competences - Know about legal aspects - Being familiar with relevant EU policies and EU development programs - Being aware of relevant (national) legislations/regulations - Considering economic aspects - Manage GI in the public sector - Geographic Information as property - Disseminate geospatial information - Applying use conditions Considering ethical aspects	**All**	**3%**	**44%**	**53%**
	EU	0%	42%	58%
	CRO	9%	56%	35%
	WB	0%	37%	63%
6.11 Organisational & Institutional Aspects competences - Managing the GI System operations and infrastructure - Set up organisational structures and procedures - Develop workforce - Connecting institutions - Institutional and inter-institutional aspects - Governing organisations - Being aware of crowdsourcing as an alternative way for geospatial data collection and its limitations	**All**	**4%**	**47%**	**49%**
	EU	5%	37%	58%
	CRO	9%	63%	28%
	WB	1%	40%	59%

Table 7: Competences necessary for organisations
(EU: European Union; CRO: Croatia; WB: Western Balkan)

Basic knowledge is found as very necessary (Concepts, Data) ranging from 78% - 75%. Professional knowledge clearly related to certain skills dealing with cartography, earth observation, photogrammetry, design, analytics, data modelling/manipulation) appears to be also very necessary (ranging between 60%-69%) as well. The advanced SDI-related competences are found less necessary (infrastructures, platforms, society, organisations) (between 49%-58%). Overall, the needs are higher for the Western Balkan stakeholders.

PART 3: ACADEMIA-BUSINESS COOPERATION AND ITS INFLUENCE ON LABOUR MARKET

This Part 3 consists of four questions.

7. How important do you see aspects of present academia-business cooperation in education and research in field of SDI: Choose only one option for each factor.

Factor		Not important	Slightly important	Important	Very important
Cooperation: exchange of information, experience and research results in general	**All**	**1%**	**4%**	**44%**	**51%**
	EU	0%	5%	47%	48%
	CRO	2%	5%	46%	47%
	WB	0%	3%	41%	56%
Cooperation: formalization of cooperation between academia and business companies	**All**	**2%**	**9%**	**56%**	**33%**
	EU	5%	11%	58%	26%
	CRO	5%	12%	63%	20%
	WB	0%	7%	51%	42%
Education: participation of business sector in educational processes (business driven cases)	**All**	**1%**	**10%**	**47%**	**42%**
	EU	0%	16%	63%	21%
	CRO	2%	9%	58%	31%
	WB	0%	10%	36%	54%
Education: business companies' participation in practical education (professional practice)	**All**	**1%**	**5%**	**34%**	**60%**
	EU	0%	21%	47%	32%
	CRO	2%	2%	47%	49%
	WB	0%	4%	22%	74%
Research: conducting joint academia-business projects	**All**	**0%**	**6%**	**43%**	**51%**
	EU	0%	5%	53%	42%
	CRO	0%	7%	49%	44%
	WB	0%	6%	37%	57%
Research: transfer of knowledge and results from academia to business	**All**	**0%**	**6%**	**37%**	**57%**
	EU	0%	5%	37%	58%
	CRO	0%	5%	42%	53%
	WB	0%	7%	33%	60%
Research: transfer of knowledge and results from business to academia	**All**	**0%**	**6%**	**40%**	**54%**
	EU	0%	10%	32%	58%
	CRO	0%	5%	42%	53%
	WB	0%	7%	42%	51%
Overall importance	**All**	**1%**	**4%**	**52%**	**43%**
	EU	0%	10%	58%	32%
	CRO	2%	0%	56%	42%
	WB	0%	4%	49%	47%

Table 8: Importance of aspects of present academia-business cooperation in education and research in the field of SDI
(EU: European Union; CRO: Croatia; WB: Western Balkan)

In general, the respondents find cooperation very important (49%) or important (40%). The most important cooperation factor is: business companies' participation in practical education (professional practice). The least important factor that the respondents could select appears to be: formalization of cooperation between academia and business companies. There is a significant difference in importance between EU and Western Balkan. The respondents from the Western Balkan find cooperation more important than the respondents from European Union.

8. *How relevant do you see academic SDI education for labour market: Choose only one option for each statement.*

Factor		Not relevant	Slightly relevant	Relevant	Very relevant
Capacity: delivering new professionals with better knowledge	**All**	**0%**	**3%**	**37%**	**60%**
	EU	0%	11%	36%	53%
	CRO	0%	2%	40%	58%
	WB	0%	1%	35%	64%
Capacity: delivering new professionals with better skills	**All**	**0%**	**3%**	**37%**	**60%**
	EU	0%	16%	42%	42%
	CRO	0%	0%	37%	63%
	WB	0%	1%	35%	64%
Capacity: delivering new professionals with better interdisciplinarity capacity	**All**	**0%**	**4%**	**37%**	**59%**
	EU	0%	5%	47%	48%
	CRO	0%	2%	35%	63%
	WB	0%	4%	36%	60%
Employability: new professionals with SDI education who have knowledge and skills required by employers	**All**	**1%**	**4%**	**39%**	**56%**
	EU	5%	11%	47%	37%
	CRO	0%	0%	47%	53%
	WB	0%	4%	33%	63%
Employability: new professionals with SDI education who have better job chances	**All**	**1%**	**6%**	**45%**	**48%**
	EU	5%	5%	58%	32%
	CRO	0%	7%	49%	44%
	WB	0%	6%	40%	54%

Table 9: Relevance of academic SDI education for labour market
(EU: European Union; CRO: Croatia; WB: Western Balkan)

From the results it appears that academic SDI education can be considered as (very) relevant for the labour market. The respondents from the Western Balkan find academic SDI education more relevant than the respondents from European Union.

9. *Which improvements should be made in the academic sector and academia-business cooperation on SDI to achieve more impact on the labour market:*
Choose only one option for each improvement?

Improvement		Not important	Slightly Important	Important	Very important
Academic institutions: should adapt their curriculum in line with the technological development (faster)	**All**	**1%**	**1%**	**34%**	**64%**
	EU	5%	0%	53%	42%
	CRO	0%	2%	28%	70%
	WB	0%	1%	32%	67%
Academic institutions: should be more practical oriented	**All**	**1%**	**7%**	**41%**	**51%**
	EU	5%	26%	37%	32%
	CRO	0%	7%	40%	53%
	WB	0%	3%	43%	54%
Academic institutions: should involve business sector to greater extent in educational process	**All**	**0%**	**12%**	**51%**	**37%**
	EU	0%	26%	48%	26%
	CRO	0%	7%	49%	44%
	WB	0%	11%	53%	36%
Cooperation: academic institutions should be more proactive in developing academia-business cooperation	**All**	**0%**	**7%**	**57%**	**36%**
	EU	0%	21%	68%	11%
	CRO	0%	6%	47%	47%
	WB	0%	4%	60%	36%
Cooperation: should be focused on academic education	**All**	**1%**	**23%**	**50%**	**26%**
	EU	0%	26%	53%	21%
	CRO	5%	29%	47%	19%
	WB	0%	18%	50%	32%
Cooperation: should give more attention to VET and LLL training of existing professionals	**All**	**3%**	**10%**	**55%**	**32%**
	EU	15%	16%	53%	16%
	CRO	2%	16%	59%	23%
	WB	0%	6%	53%	42%
Cooperation: should be focused on research and development	**All**	**0%**	**6%**	**51%**	**43%**
	EU	0%	5%	42%	53%
	CRO	0%	14%	53%	33%
	WB	0%	3%	51%	46%

Table 10: Necessary improvements in the academic sector and academia-business cooperation on SDI to achieve more impact on the labour market
(EU: European Union; CRO: Croatia; WB: Western Balkan)

Regarding the improvements that should be made in the academic sector and in the academia-business cooperation on SDI in order to achieve more impact on the labour market, all the pre-defined improvements are considered as (very) important. An outstanding improvement refers to Academic institutions should adapt their curriculum in line with the technological development in a faster way. The improvement Academic institutions should be more practical oriented is also considered as very important according to the respondents. The respondents from the Western Balkan consider the pre-defined academic improvements significant more important than the respondents from the European Union.

10. *If you find some other improvement(s) relevant for academic sector and academia-business cooperation on SDI that has/have an impact on labour market, please write it down:*

The following comments in English were given:

- Make SDI and its importance more known in society (task of all stakeholders) to increase number and quality of graduating students.
- Starting from the users - need students with better training in how non-expert users of data work so that they can propose systems that support them. (e.g UX expertise, user requirements analysis expertise).
- Academic sector must acknowledge SDI better.
- More practical workshops.
- Academia could help NMCAs structure the larger challenges in which the NMCAs operate and hand over possible solutions and insights.
- A condition of employment at the university should be work experience in the private sector.
- Understand existing computer infrastructure for spatial data analysis (EU but also national - virtual servers, general cloud computing), and use various software programs to work with spatial data (R, Python, SQL, Rasdaman Data Cube ...)

The following comments were translated into English:

- Fitting the number of students inscribed in first study year with the needs of the labour market!!!
- It is a key moment in which academic society should understand its major role – creation of new experts and „training“, respectively upskilling existing ones, while business sector should realize and accept benefits which academic society provides – if partnership relation is established, as it exist in advanced countries.
- It is especially relevant to understand and act in a manner that we are not a competitor but collaborators for the benefit of the profession.
- Must have a pact with public entities for teaching practice.

No outstanding suggestion for improvement stands out.

PART 4: FUTURE OF SDI

In the context of INSPIRE – the European Directive for establishing infrastructure(s) for spatial information in the European Community - the development of SDIs at all administrative levels (European, national, regional, local, thematic) will enter into a new phase after 2020.

11. In your opinion, what will be the development of SDI's in the future?

Please choose **one** of the following:

	Number	**%**
Get new incentives and forms	55	41%
Progress in line with present development	34	25%
Stagnate	3	2%
Incorporate in other data infrastructures	33	25%
Disappear	0	0%
Do not know	7	5%
Other	2	1%
	134	**100%**

Table 11: Opinion about future development of SDI

Other developments that were given:

- Will probably be absorbed by wider initiatives on data management and sharing e.g. a simple google search
- Depends on politics which are/will be implemented in „constituents"

In general the respondents were rather positive about the future development of SDI's, but the respondents did not give a clear picture for the future direction. According to the respondents, the most important development is Get new incentives and forms. The developments Progress in line with present development and Incorporate in other data infrastructures are also considered as 'important' developments.

12. How important do you find academic education for the business sector in respect to SDI development of the future: Choose only one option for each factor.

Factor		**Not important**	**Slightly important**	**important**	**Very important**
Content: Provision of theoretical knowledge on SDI	**All**	**1%**	**12%**	**56%**	**31%**
	EU	0%	0%	63%	37%
	CRO	5%	23%	51%	21%
	WB	0%	8%	56%	36%

Content: Delivering basic skills on SDI development and implementation	**All**	**0%**	**5%**	**60%**	**35%**
	EU	0%	5%	69%	26%
	CRO	0%	9%	56%	35%
	WB	0%	2%	60%	38%
Content: Delivering specialised skills for specific applications	**All**	**1%**	**9%**	**54%**	**36%**
	EU	5%	16%	58%	21%
	CRO	0%	16%	61%	23%
	WB	1%	3%	49%	47%
Widening: Basic knowledge on SDI should be embedded in the wide spectrum of study programs	**All**	**1%**	**7%**	**51%**	**41%**
	EU	0%	21%	47%	32%
	CRO	0%	5%	51%	44%
	WB	1%	4%	53%	42%
Widening: Basic knowledge on SDI should be included in basic GIS courses of all relevant study programs	**All**	**0%**	**4%**	**44%**	**52%**
	EU	0%	5%	58%	37%
	CRO	0%	5%	37%	58%
	WB	0%	4%	44%	52%
Widening: SDI courses should be expanded to modules or even separate study courses in geodesy/geoinformatics and related study programs	**All**	**1%**	**13%**	**46%**	**40%**
	EU	0%	16%	68%	16%
	CRO	2%	18%	47%	33%
	WB	0%	10%	40%	50%
Overall importance	**All**	**0%**	**7%**	**52%**	**41%**
	EU	0%	11%	47%	42%
	CRO	0%	7%	60%	33%
	WB	0%	5%	49%	46%

Table 12: Importance of academic education for the business sector in respect to SDI development of the future (EU: European Union; CRO: Croatia; WB: Western Balkan)

The respondents consider academic education for the business sector in respect to SDI development of the future as (very) important – even more important for the respondents from the Western Balkan. Most important aspect is that *Basic knowledge on SDI should be included in basic GIS courses in all relevant study programs*. This might be an indication that basic knowledge on SDI is still missing (in particular relevant in non GI-oriented faculties where they have never heard about SDI).

13. How important is vocational (VET) and long-life learning (LLL) training for business sector in respect of SDI development in future: Choose only one option per factor.

Factor		Not Important	Slightly Important	Important	Very Important
Content: Provision of theoretical knowledge on SDI	**All**	**0%**	**12%**	**60%**	**28%**
	EU	0%	16%	68%	16%
	CRO	0%	21%	53%	26%
	WB	0%	6%	61%	33%
Content: Delivering basic skills on SDI development and implementation	**All**	**1%**	**7%**	**51%**	**41%**
	EU	0%	21%	47%	32%
	CRO	2%	7%	49%	42%
	WB	0%	3%	54%	43%
Content: Delivering specialised skills for specific applications	**All**	**1%**	**9%**	**54%**	**36%**
	EU	5%	11%	68%	16%
	CRO	0%	16%	51%	33%
	WB	0%	4%	53%	43%
Audience: VET and LLL should focus on private sector professionals who are directly involved with SDI development and implementation	**All**	**1%**	**9%**	**55%**	**35%**
	EU	5%	16%	58%	21%
	CRO	0%	13%	47%	40%
	WB	0%	4%	60%	36%
Audience: VET and LLL should focus on civil servants of the public sector who use SDI for fulfilling their tasks	**All**	**1%**	**9%**	**50%**	**40%**
	EU	5%	21%	48%	26%
	CRO	0%	9%	51%	40%
	WB	0%	6%	50%	44%
Widening: Basic knowledge on SDI should be embedded in VET and LLL at a high scale	**All**	**0%**	**12%**	**53%**	**35%**
	EU	0%	32%	53%	15%
	CRO	0%	12%	51%	37%
	WB	0%	7%	54%	39%
Overall importance	**All**	**1%**	**4%**	**59%**	**36%**
	EU	5%	16%	53%	26%
	CRO	2%	5%	63%	30%
	WB	0%	0%	58%	42%

Table 13: Importance of vocational (VET) and long-life learning (LLL) training for business sector in respect of SDI development in future
(EU: European Union; CRO: Croatia; WB: Western Balkan)

The respondents find vocational (VET) and long-life learning (LLL) training (very) important for business sector in respect of SDI development in future – although not as very important than academic education. This is an interesting result as there is so much talking about the necessity of continuous VET/LLL training but these ways of education appear to be less important for the business sector than the 'traditional' academic education! The respondents from the Western Balkan find VET and LLL trainings more important than the respondents from the European Union.

14. How important do you see future SDI education for your company/organisation: Choose only one option per factor.

Factor		Not Important	Slightly Important	Important	Very Important
Education: there should be more SDI education in general	**All**	**1%**	**6%**	**60%**	**33%**
	EU	0%	10%	58%	32%
	CRO	2%	7%	65%	26%
	WB	0%	4%	58%	38%
Education: SDI should be integrated in GIS courses	**All**	**0%**	**5%**	**60%**	**35%**
	EU	0%	0%	74%	26%
	CRO	0%	7%	70%	23%
	WB	0%	4%	52%	44%
Education: SDI should be combined with other modern spatial concepts (Smart cities, Intelligent transportations systems, precise farming, sustainable environment, etc.)	**All**	**0%**	**4%**	**45%**	**51%**
	EU	0%	5%	53%	42%
	CRO	0%	9%	47%	44%
	WB	0%	1%	42%	57%
Education: should be more practice and application-oriented	**All**	**1%**	**10%**	**45%**	**44%**
	EU	5%	21%	48%	26%
	CRO	0%	12%	56%	32%
	WB	0%	6%	38%	56%
Benefit: Highly SDI-educated professionals as staff member will contribute to my company/organisation	**All**	**1%**	**8%**	**51%**	**40%**
	EU	5%	11%	58%	26%
	CRO	2%	7%	61%	30%
	WB	0%	8%	44%	48%
Benefit: Highly SDI-educated professionals as staff member will substantially contribute to my company/organisation	**All**	**1%**	**15%**	**48%**	**36%**
	EU	5%	16%	53%	26%
	CRO	2%	23%	47%	28%
	WB	0%	10%	47%	43%
Benefit: Basic education of SDI in a wide range of study programs will contribute to better understanding of spatial data use and so will contribute to my company/organisation	**All**	**1%**	**10%**	**51%**	**38%**
	EU	0%	16%	63%	21%
	CRO	2%	12%	53%	33%
	WB	0%	7%	46%	47%
Overall importance	**All**	**1%**	**5%**	**56%**	**38%**
	EU	0%	11%	58%	31%
	CRO	2%	9%	61%	28%
	WB	0%	1%	53%	46%

Table 14: Importance of future SDI educations for companies/organisations (EU: European Union; CRO: Croatia; WB: Western Balkan)

The respondents find future SDI education important for their company/organisation – but not very important. The respondents from the Western Balkan find SDI education more important than the respondents from the Western Balkan. The most important aspect for future SDI education appears to be *SDI should be combined with other modern spatial concepts (Smart cities, intelligent transportations systems, precise farming, sustainable environment, etc.)*. This might be an indication that SDI applications are more recognizable for the respondents than the basic SDI concepts.

15. *Provide additional comments how academic education should/could support your organisation in field of SDI? (Open question)*

The following additional comments were given by the respondents:

- Academic education should research in the news fields and lead the way.
- By organizing work meetings, seminars, trainings, etc.
- FLEXPUB-staff could do a good job in that.
- Get involved in pilot projects.
- Increasing the level of education
- make it visible as a field in itself, instead everybody looks for home solutions
- N/A (we are an academic institution)
- New applications.
- Organizing on training
- With immediate exchange of experiences and adaptation to working practices in organisations.
- With more contacts and joint projects.
- Real estate management
- Currently no.
- In frame of curriculum on agronomy faculties course dealing with GIS and SDI should be included.
- Academic education is very important for development in the field of managing spatial dana infrastructure.
- Academic education can help.
- Academic education can help our company/organisation in field of SDI.
- Academic education on SDI will contribute in creation of experts with high education in this area, what will also contribute to development of our company by employing them.
- Academic education with SDI study content can help companies which deal with production and delivery of spatial data and IT services related to them.
- It is important to have versed experts for sake of further education of employees and cooperation with business sector.
- Can help in education of staff.
- Of course, it can, having educated expert which is also practical and keen to work success is guaranteed.
- I do not think it can help.
- Communication form must be significantly improved and intensified, and exchange of relevant information must be bi-directional.

- Education brings new horizons.
- Since I come from academic society, the answer is doubly yes. First yes, because it expands platform of knowledge which we, as institution, provide, making us interesting to student, and second yes, because we need, for our research and professional activities, staff which is high-quality educated in field of SDI.
- Organisation of narrow specialised workshops.
- Will help in delivery of strategic studies for environmental impact assessment.
- Education in field of mapping and virtual reality.
- I work in academic society and I think that such education can help the companies.
- I work in company which offers academic education, and of course, such education can help Faculty of Geodesy in SDI field.
- Since I work in academic institution, SDI will be one of the developments focuses.
- I find that academic education can contribute to improvement of organisation.
- I find that own knowledge should be constantly improved, and this is basic for following the EU standards.
- There should be more lectures and practices for the Cadastre and Land Registry.
- Educating young staff.
- By bringing in new specialized staff in this field.
- Seeing the demands of businesses.
- Contribution to SDI Basic Education.
- Contribution to the concepts of cities and buildings of the future.
- More oriented curriculum for educating of specialists capable of providing the best SDI for Albanian youth
- With SDI material in Albanian language.
- With SDI technology equipment.
- More institutional collaboration.
- Through specific training.
- Knowledge from the academic world is important in SDI developments.
- Through professional training in the field of Geo-spatial / SDI data management and GIS programs and applications, expert assistance from academic and business institutions, study visits to research institutes and SDI development institutions.
- Educational programs must be compatible with technology and its development.
- Such Triple helix development projects.
- To be involved in projects during the study.
- Staff training.
- Training and various certifications.

In general, the respondents expressed that: Yes, Academic education can help by workshops (specific, tailored) and staff training, institutional and practical collaboration, exchange of experiences, better communication/enhanced visibility, and involvement in projects.

16. *Provide additional comment how you would like to see academia-business cooperation in education and research in the field of SDI (Open question)*

The following additional comments were given by the respondents

- Academic society must encourage business society on cooperation and continuously offer new forms of cooperation!
- Academic institutions could organize seminars, workshops or new products, technologies and software presentations.
- Better contacts.
- Digitalize all data and network them as much as possible between the institutions.
- Education on all levels.
- Education through seminars and workshops, inclusion of both sectors in joint projects.
- Education of staff for proper management of SDI.
- As first, work on establishment of communication.
- As many as possible practice, technology and industry representatives which can present what are the real problems and ways how to implement knowledge about the SDI.
- Local cadastre offices can cooperate with all public and private institutions.
- Mutual transfer of information and knowledge
- Mutual exchange
- Academic society initiative is necessary regrading cooperation with the business sector, and also the launching cooperation programs with academic society initiated by coordinators and key players of NSDI establishment.
- Staff education for GIS tool usage, spatial data, etc.
- Since in the Federation of BiH the education is on the cantonal level, and mostly public, it is necessary that cantonal governments ensure funding for this cooperation, if this is not possible to be established on market principles between academic and business sector, in mutual interest.
- To organize education related to practical implementation of SDI in area of professional activity.
- To organize lectures and workshops with goal to introduce SDI area to business sector. To organize work placements with companies which deal with SDI.
- To conceive and jointly develop for practice-oriented projects. Jointly attending on projects.
- Basic knowledge on SDI should be included in basic GIS courses of all relevant study programmes.
- Basic SDI education (should be introduced) on relevant study programmes. Should exist possibility of additional education when getting job/during the professional carrier.
- It is advisable that academic institutions relay more on professional infrastructure of business sector. Also in context of integration and professional networking in function of solving complex tasks.
- Train existing staff (LLL)
- Take more care.

- First of all, improve communication between academy and business. I think that lack of this is essence of our problems and lack of development. It can be achieved with greater presence of companies at the faculties.
- Projects
- Conducting work placements for students on jobs related to SDI.
- Building the infrastructure from basement till the roof on practical exercises/workshops.
- Don't ask existing employers in the sector because it is not well developed. Focus on companies outside Croatia, on EU and especially Business Incubation Centres (BIC) of ESA.
- Workshops, including academic society in business plans and projects
- Exchange of experience and information
- Exchange of experience and knowledge
- Seminars.
- Synergy of educational and market sector
- Agreements or legal frame which will define exclusively consultancy and research component of academic society and financing component ensured by business entities.
- Work placements and cooperation during the education.
- Work placements for students in business entities which develop SDI.
- Professional training.
- Creation of additional services
- All is already mentioned.
- Dialog should be opened and start cooperation. Till now we didn't saw it.
- Parallel possibility of working at the faculty and in private company should be introduced. So should also PhD study be paid (half-half).
- Participation in staff education, professional help in SDI implementation.
- Including companies in research projects.
- Including business sector in LLL programs.
- Including SDI components in GIS courses.
- Including knowledge on SDI implementation in LLL courses
- Including private sector in the education and decision on council meetings.
- Improving the staff at first place.
- More coordination (transfer of new knowledges) from the faculties on responsible institutions.
- More practice directed towards applications and concrete cases for specific areas.
- Academic sector should have more sensitivity for real situation as well as for needs to present real situation and needs that real situation is presented by real experts dealing with those issues on daily basis.
- More cooperation.
- More joint projects.
- Joint projects.
- Joint participation in projects.

- Geopolitics
- Provide more research in special SDI projects.
- With more contacts and joint projects
- as a model for opening up new horizons for work.
- More representation of practical training in education and apply it in the business sector.
- Business could learn from Academia about flavors of SDIs and possible approaches and newest developments (international) and then Business could also showcase the problems that we encounter in the development of a (national) SDI.
- Funding sources directly targeted at data management and SDI - there are many research issues to be addressed relating to data sharing and interoperability, and the results underpin any other geospatial work, but no specific funding to address these core issues
- Increasing the cooperation with companies that have an activity close to the concept of SDI
- Investments by the private sector for research goals in education!
- It is a basic question, in two different ways: a) provide formation to future professionals; b) provide additional support to improve processes and new applications.
- Concretization of the contributions related to the creation of practical skills for the implementation of the Law 72/2012.
- Creating Geo-spatial cluster.
- Collaboration by conferences and workshops
- Mutual cooperation academy-business
- Businesses can provide us with research infrastructure.
- Must be collaborative projects between Academies and Businesses
- It should be a close collaboration for a better performance.
- There had to be several projects together
- implementing joint projects
- More opportunities for student internships with that of interactive professional practice
- Through seminars and themes that help SDI
- A report of sincere cooperation with sharing of experiences between them greater inclusion of the GIS program in the school and academic curriculum so as to be more likely to have field experts in the agricultural sector as most of the data are spatial, collaborating in the design of programs / projects between organisations / businesses and academies.
- Involvement in joint projects.
- Permanent presence of staff from educational environments in working organisations and exchange of practical experiences
- Projects are analysed during - and after - the works.
- enhancing more the contacts of particular groups of master's students in business environments.
- To be a close, practical collaboration with a view to applying the knowledge gained in education.

In summary, the respondents provided the following additional comments how you would like to see academia-business cooperation in education and research in the field of SDI:

- Strong communication among relevant parties
- Increase of cooperation
- Better coordination of relevant parties
- Encouragement of Academic community to business companies in cooperation and offer new cooperation forms
- Provision of more seminars and workshops
- Provision of more lectures with emphasis on basic knowledge!!!
- Set up of joint practice-oriented projects
- Mutual exchange of information, knowledge and expertise
- Introduction of work placements so that students can ‘feel’ the practice

PART 5: HAMPERING FACTORS

This part 5 consists of two questions dealing with hampering factors for past and future SDI developments.

17. During the last years, how important were the following factors restricting the SDI innovation and development activities in your organisation? Choose only one option per factor.

Restricting Factor		Not important	Slightly important	Important	Very important
Financial: Lack of financial resources within my organisation/company	**All**	**6%**	**25%**	**43%**	**26%**
	EU	11%	42%	21%	26%
	CRO	9%	35%	40%	16%
	WB	3%	15%	50%	32%
Financial: Lack of external financial resources from sources outside my organisation/company	**All**	**5%**	**27%**	**40%**	**28%**
	EU	5%	42%	21%	32%
	CRO	13%	33%	33%	21%
	WB	0%	20%	49%	31%
Financial: Too high innovation costs	**All**	**5%**	**31%**	**42%**	**22%**
	EU	10%	42%	32%	16%
	CRO	7%	35%	37%	21%
	WB	3%	26%	46%	25%
Knowledge: Lack of qualified personnel	**All**	**2%**	**13%**	**45%**	**40%**
	EU	0%	32%	47%	21%
	CRO	5%	9%	44%	42%
	WB	1%	11%	44%	44%
Knowledge: Difficulty in setting up partnerships for innovation	**All**	**1%**	**21%**	**51%**	**27%**
	EU	11%	26%	58%	5%
	CRO	0%	12%	58%	30%
	WB	0%	25%	44%	31%
Market: Market dominated by established organisations	**All**	**7%**	**30%**	**44%**	**19%**
	EU	16%	32%	47%	5%
	CRO	5%	23%	44%	28%
	WB	6%	34%	43%	17%
Market: Uncertain demand for innovative SDI-products or services	**All**	**4%**	**26%**	**50%**	**20%**
	EU	5%	42%	42%	11%
	CRO	5%	25%	51%	19%
	WB	3%	22%	51%	24%
Market: No need because of no/low demand for SDI-innovations	**All**	**10%**	**35%**	**40%**	**15%**
	EU	16%	58%	21%	5%
	CRO	9%	30%	47%	14%
	WB	8%	32%	42%	18%

Table 15: Importance of the above factors restricting the SDI innovation and development activities (EU: European Union; CRO: Croatia; WB: Western Balkan)

Most of the pre-defined hampering factors for the past were considered as (very) important. The most important hampering factor for the past refers to Lack of qualified personnel. The respondents from the Western Balkan considered the pre-defined hampering factors significant more important than the respondents from the European Union.

18. How important do you see the following factors as restricting for future SDI innovations and development activities in your organisation? Choose only one option per factor.

Factor		Not important	Slightly important	important	Very important
Political: Lack of political interest for further SDI development	**All**	**5%**	**15%**	**42%**	**38%**
	EU	5%	16%	32%	47%
	CRO	7%	16%	42%	35%
	WB	4%	14%	44%	38%
Political: SDI just included in programs with another spatial focus	**All**	**4%**	**29%**	**49%**	**18%**
	EU	5%	32%	42%	21%
	CRO	5%	35%	44%	16%
	WB	3%	26%	53%	18%
Financial: Lack of funds within my company/organisation	**All**	**3%**	**29%**	**43%**	**25%**
	EU	0%	26%	48%	26%
	CRO	7%	44%	30%	19%
	WB	1%	22%	49%	28%
Financial: Lack of external financial resources from sources outside your organisation/company	**All**	**3%**	**25%**	**49%**	**23%**
	EU	0%	26%	48%	26%
	CRO	9%	30%	45%	16%
	WB	0%	22%	52%	26%
Financial: Too high Innovation costs	**All**	**1%**	**30%**	**53%**	**16%**
	EU	0%	58%	42%	0%
	CRO	5%	32%	51%	12%
	WB	0%	21%	57%	22%
Knowledge: Lack of qualified personnel	**All**	**4%**	**10%**	**50%**	**36%**
	EU	11%	16%	47%	26%
	CRO	2%	7%	56%	35%
	WB	3%	11%	47%	39%
Knowledge: Difficulty in setting up partnerships for innovation	**All**	**1%**	**16%**	**58%**	**25%**
	EU	0%	21%	53%	26%
	CRO	2%	7%	65%	26%
	WB	0%	20%	56%	24%
Market: Market dominated by established organisations	**All**	**6%**	**31%**	**46%**	**17%**
	EU	20%	37%	32%	11%
	CRO	5%	27%	47%	21%
	WB	3%	30%	50%	17%
Market: Uncertain demand for innovative SDI-products or services	**All**	**3%**	**24%**	**54%**	**19%**
	EU	0%	47%	47%	6%
	CRO	7%	16%	58%	19%
	WB	1%	22%	55%	22%

Market: No need because of no/low demand for SDI-innovations	**All**	**9%**	**28%**	**47%**	**16%**
	EU	15%	37%	37%	11%
	CRO	14%	26%	51%	9%
	WB	4%	26%	48%	22%

Table 16: Importance of the above factors as restricting for future SDI innovations and development activities (EU: European Union; CRO: Croatia; WB: Western Balkan)

Most of the pre-defined hampering factors for the future were considered as (very) important – even more important than the ones for past. The most important hampering factor for the past refers to *Lack of political interest for further SDI development* (which was considered as a more important factor the respondents from the European Union) followed by *Lack of qualified personnel.* Except for the political hampering factors, the respondents from the Western Balkan considered the pre-defined hampering factors for the future more important than the respondents from the European Union.

PART 6: CONCLUSION

This final part 6 contains only one question.

19. *Finally, we would like to give you the opportunity to comment to this questionnaire. Do you have questions, comments or observations regarding this survey, about SDI development and education in general or BESTSDI in specific? (Open Question)*

The respondents gave the following comments:

- Usually, due to state rigid policies, a proper creativity cannot be established in cooperation between education and practice. The legal system and order suppress the freedom of creativity and of society as a whole. Everyone seems to be scared of inspections and as a result of that, only increases the number of legal acts and procedures that kill the system, rather than the creativity of the individual.
- I do not have any special comments because I gradually get acquainted with this topic, but I also want to go further into the essence of this type of research.
- I see in some questions the reason behind it why they are posed. It wonders in function of what you will use the outcome of the questionnaire (in which context, to which audience, ...).
- I think that would be good to share SDI education resources within a academic network.
- I welcome the SDI development initiative. I wish you kindness in project alignment and full political freedom when selecting resources.
- SDI is critical for local, regional and global sustainable development when the decreasing resources of the world that we live in is considered. I think when the curriculum of geomatic/geospatial science/engineering is designed, SDI-specific contents should be taken into account more. In addition, universities should be partners of SDI projects at different levels. Especially NSDI policies should promote the cooperation between universities and responsible parties.
- SDI should be part of all ecosystems
- Support for research!
- Thank you.
- Thanks for being part of this questionnaire.
- The initiative is a greeting but does not sum optimist for the realization.
- "This was a little tricky to answer as some of the questions (e.g. #6, #15) seemed to be targeted at industry whereas we are an academic institution.
- Very well structured.
- Well targeted.
- Not sure I am the correct person to answer the questions…
- Also, important to keep focus on the underlying reason for having an SDI - to be able to find and share data efficiently and with a wide range of users. Non-standard approaches to SDI (e.g. modern search engines) should form a core part of this discussion as users are used to working with these."
- "Open data" politic, development of GEO-IT private sector.

- Questionnaire could be more concise.
- Questionnaire requests high level knowledge about topic, so it is hard to be followed by those who are not professionally tied to SDI.
- Number of roles for institutions shouldn't be limited only on three. In the questionnaire primarily spheres related to spatial data domain itself are touched, without step towards other skills and competences relevant for establishment of SDI.
- SDI is very important infrastructure for any modern society, respectively also for BiH. It should be recognized as important strategic question (best through the environment protection strategy in BiH on state, entity, Brčko district and cantonal level) by adoption of adequate legislation and formal definition of key institutions which manage this infrastructure, as on state level (some kind of coordination), and especially on entity and Brčko district level. Other public and state institutions which dispose of data and information relevant for SDI must be (obligatory) active actors of the system. Educational curricula of most studies, and especially geodetic one, should (if they already didn't) include and regularly update this component of education of SDI experts. Economy, as well as overall society will have multiple benefit form well established and functional SDI system.
- Comment related to the general picture of our society (BiH) – for this topic (SDI) we are neither on academic, technological or general not on the (appropriate) level.
- I think it is of crucial importance launching of this project.
- With the goal of further improvement of SDI in measures which all EU countries implement
- NSDI / INSPIRE is too much focused-on legislation which is imposed to final users which therefore have to focus on legislation instead of concrete benefits which NSDI / INSPIRE should bring to them. NSDI as whole has also done too little on business model for final users regarding accessibility of basic spatial data (for example Croatian address model is not available as Online service).
- I am not in this field and therefore I miss more options in several questions – don't know/am not versed/have not enough information to give an answer; so I answered best I could know from the perspective of our institution. If my answers are not good you can freely delete them since this is for the first time I hear for SDI.
- I support the survey and project. I find that cooperation is un-justly neglected. I find that focus in profession is imposed (set) on completely irrelevant and short-term issues.
- We should look the moment in which we are. We have cca 1100 licenced surveyors, cca 1400 employed in SGA (Croatian NMCA), two geodetic faculties and at the same time situation in our profession is catastrophic. We don't have reliable evidences, starting with boundaries over installations, complete infrastructure (roads) registration), maritime domain, tourist land, etc.
- Extraordinary comprehensive, hardworking and well organised work is in front of us to establish all evidences (registers) and that they become reliable.
- We, respectively our data is basis for legal security for investments in Republic of Croatia.
- Praise to BESTSDI project, it is necessary to speed up execution of the project.
- Use need of spatial data in the Forest authority of Montenegro is great. For now, due to the lacking financial sources, usage of spatial data is limited on use of aero-photo images (2011 and 2017), 3D terrain model and similar, and work with GIS applications (ArcGis).
- Does project ensure financing, or at least co-financing of eventual staff education in future?
- To long questionnaire with several unclear questions. To many abbreviations and terms known only to geoinformatic experts.
- Promotions and educations should be executed. Everything is done on to high level, far away from final users.

- Really necessary survey, also words of praise.
- I think that survey is well drafted but is too long.
- Everything was very clear.
- It is very important to introduce BEST-SDI as a separate curriculum in various branches of the University and some basic knowledge in the final year of high school.
- I think this query is not that clear, it is overloaded, and the processing of its results is a laborious and sometimes unclear job.
- I think the survey should extend to an interest group that has no knowledge or information about SDI.
- There is no possibility of marking the email which disables further contact.
- I have no questions about the questionnaire.
- I have no remarks; I wish to create an efficient SDI!
- At the moment no.
- Good project but impact on very low-level society.
- The rubrics should be more concreted in the light of the current Albanian reality.

Most respondents gave positive comments about the survey and expressed their support for BESTSDI. A few respondents provided more negative questions in particular that the questionnaire was too long.