



Regional Cooperation Council



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# MAPPING OF DIGITAL INNOVATION HUBS

and identification of needs within Western  
Balkans and of prospective regional  
cooperation actions

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Title: Mapping of digital innovation hubs, and identification of needs within Western Balkans and of prospective regional cooperation actions

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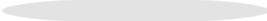
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# CONTENTS

<b>1. DIH POLICIES IN EU AND WESTERN BALKANS .....</b>	<b>8</b>
1.1. Digital innovation Hubs.....	9
1.2. CEE EU Members Digital Innovation Hubs – examples.....	10
<b>2. DIHS MAPPING ANALYSIS.....</b>	<b>14</b>
2.1. Identification of stakeholders.....	15
2.2. The questionnaire.....	16
2.2.1. Understanding DIH.....	18
2.2.2. DIH Legal Form .....	18
2.2.3. Numbers of employees and physical/virtual presence.....	20
2.2.4. Support in establishment .....	21
2.2.5. Services offered by DIH .....	22
2.2.6. Revenue distribution and fee structure.....	25
2.2.7. Barriers to development .....	28
<b>3. INTERVIEWS.....</b>	<b>32</b>
3.1. Level of understanding of DIH.....	34
3.2. Expectations from policy makers.....	35
3.3. Level of demand for services .....	36
<b>4. SUMMARY OF FINDINGS .....</b>	<b>38</b>
<b>5. FUNDING INSTRUMENTS TO SUPPORT INNOVATION AND DIH DEVELOPMENT .</b>	<b>42</b>
<b>6. RECOMMENDATIONS.....</b>	<b>46</b>
<b>7. CONCLUSION .....</b>	<b>50</b>
<b>8. ANNEX I – QUESTIONNAIRE RESPONSES AND LIST OF ORGANISATIONS .....</b>	<b>52</b>
8.1. LIST OF 54 QUESTIONNAIRE RESPONDENTS .....	119
8.2. LIST OF 91 ORGANISATIONS CONTACTED.....	124
<b>9. ANNEX II – QUESTIONNAIRE FOR DIHS.....</b>	<b>132</b>
<b>10. ANNEX III – CEE AND WB POLICIES AND STRATEGIC APPROACH.....</b>	<b>140</b>



## EXECUTIVE SUMMARY:

MAPPING OF DIGITAL INNOVATION HUBS, AND IDENTIFICATION OF NEEDS WITHIN  
WESTERN BALKANS AND OF PROSPECTIVE REGIONAL COOPERATION ACTIONS

### AIM

The aim of this report is to provide an overview of the current situation of Digital Innovation Hubs (DIHs) and similar organisations operating in the Western Balkans (WB) with a particular focus on their sustainability, services they offer, available capacities and support they are receiving from national authorities and donor community.

Apart from individual considerations per economy, this document also provides a benchmark of these organisations over the region by comparing their national policies, modus operandi, as well as the types of clients they serve.

### METHODOLOGY

In order to conduct a comprehensive analysis, the desk-based research was undertaken, with a particular focus on such organisations operating in Central and Eastern Europe, as good practice examples. These practices have been considered with respect to services they offer including fund raising, capacity building and networking with similar organisations throughout the European Union (EU). The report also analyses different EU policies and programmes that are available to assist and fund the infrastructure of DIHs as organisations considered to be the backbone of innovation and digitalisation of European small and medium-sized enterprises (SMEs).

### IMPORTANT ISSUES TO BE CONSIDERED

The findings are set in the context of the unique characteristics of each of the Western Balkan economy, inhomogeneous understanding of the DIH concept, divergent viewpoints in organisational development, financial constraints, various support from governmental bodies, and complexity of funding.

## THE FINDINGS AND RECOMMENDATIONS

Recommendations for further development and goals that need to be achieved by the main strategic policy documents are provided, with specific activities for policy makers and DIHs in order to support the process of reforms and transformation. The findings include information on funding opportunities to ensure functional sustainability, and networking to enhance new horizons of cooperation, and elaborate on the ways to develop new tailor-made services that will be offered to DIH clients as the most important aspects that such organisations in the Western Balkan region should focus on in the coming years.

## 1.1. DIGITAL INNOVATION HUBS

The process of digital transformation of Europe's economy is crucial in order to remain competitive on international stage. Companies and public sector organisations from Europe need to integrate digital technologies into their business processes, products and services in order to fully benefit from possible efficiency gains. With this in regard, DIHs can be a powerful tool to facilitate these changes.

DIHs are support facilities for enterprises, but they also provide assistance to other stakeholders that are looking to digitalise their business operations and as such DIHs also contribute to the increase of competitiveness of their clients by improving their business/production processes as well as products and services through digital technology<sup>1</sup>. They offer services that might not be readily available elsewhere and assist their clients in addressing business challenges with a common service model.

Ideally, services offered by DIHs should be available to a wide range of industries and should be offered to improve digitalisation efforts of the economy, with a specific focus on SMEs, mid-caps, and low-tech companies<sup>2</sup>. The services available through DIHs enable any business to access the latest knowledge, expertise and technology for testing and experimenting with digital innovations relevant to its products, processes or business models. DIHs provide connections with investors, facilitate access to financing for digital transformations, and help connect users and suppliers of digital innovations across the value chain. They also foster synergies between digital and other key enabling technologies (such as biotech, nanotechnologies, and advanced materials). These services are of relevance to companies that currently have a relatively low level of digitalisation and do not have the resources or personnel to address the digitalisation challenge.

In practice, the services, structure, and focus of the DIHs vary across the EU, depending on the market and industry needs, as well as national and/or regional specificities of each economy, but as a common policy and operational framework DIH main modus operandi focuses on:

- Raising awareness and providing or ensuring access to digital transformation expertise, know-how, and services including testing and experimentation facilities;
- Providing support in the area of advanced digital skills (e.g. by coordinating with education providers for the provision of short-term training for workers and internships for students);
- Providing support to companies, especially SMEs and start-ups, organisations and public administrations to become more competitive and improve their business models through the use of new technologies covered by the Digital Europe Programme (DEP<sup>3</sup>);
- Acting as a facilitator to bring together industry, businesses, and administrations, which need new technological solutions on one side, with companies, notably start-ups and SMEs, which have market-ready solutions on the other side.

<sup>1</sup> Shaping Europe's digital future - European Commission. 2020. Digital Innovation Hubs (DIHs) In Europe - Shaping Europe's Digital Future - European Commission

<sup>2</sup> <https://ec.europa.eu/digital-single-market/en/news/digitising-european-industry-initiative-nutshell>

<sup>3</sup> <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>



# 1

## DIH POLICIES IN EU AND WESTERN BALKANS

In an effort to acknowledge and introduce different DIHs across the EU, a [DIH catalogue](#) was developed and hosted by the European Commission's Joint Research Centre (JRC). The purpose of the catalogue is to support community building, increase DIH visibility, networking, and collaboration opportunities.

## 1.2. CEE EU MEMBERS DIGITAL INNOVATION HUBS – EXAMPLES

In order to analyse various approaches and initiatives taken with respect to fostering innovation and digitalisation, five examples were selected from South-eastern and Eastern European EU Member States. Moreover, attention was given to the role DIHs have taken in these initiatives.

For reasons of geographical proximity, comparably higher levels of overall economic development, and similarity in national transformation paths endured, the selected EU Member States the Czech Republic, Poland, Slovenia, Hungary and Croatia were selected as examples for comparison with the WB economies.

**Good Practice** - Digital Innovation Hubs in the Czech Republic are largely focused on the fields of artificial intelligence (AI), machine learning, robotics, cybersecurity and high-performance computing. At the heart of national strategy Czech Republic Industry 4.0 are universities and research institutions in Czech Republic such as the Czech Institute of Informatics, Robotics and Cybernetics<sup>4</sup>, Research Centre for Informatics<sup>5</sup> and Technical University of Ostrava<sup>6</sup>. One of the primary objectives of Industry 4.0<sup>7</sup> in Czech Republic is to redesign how innovation and research infrastructures communicate with the industry at large. This is accomplished by developing National Research Centres that serve as experimental testbeds or pilot plants that support, develop and test Industry 4.0 ideas. This infrastructure aims to gather acknowledged scientists, competitive researchers and innovators in institutions which can then collaborate with large national and multinational corporations and provide them with access to cutting-edge advanced technologies to solve issues they are faced with in daily operations. The results of their successful research and efforts can ultimately be transferred to SMEs without the need for them to incur large expenses for R&D efforts.

Whereas the DIH landscape in Czech Republic is focused on AI and machine learning for a variety of industries, Poland is largely focused on manufacturing sector and using advanced manufacturing technologies and innovation to implement the process of agile production. Examples of such DIHs are the Centre for Advanced Manufacturing Technologies (CAMT)<sup>8</sup>, HPC4Poland<sup>9</sup> within the Poznan Supercomputing and Networking Centre

(PSNC)<sup>10</sup> and PIAP HUB<sup>11</sup>. Both CAMT and HPC4Poland are part of the Platforma Przemysłu Przyszłości - PPP (Future Industry Platform)<sup>12</sup> and help co-create its vision and strategy. The Polish PPP, coordinated by the Ministry of Entrepreneurship and Technology, has a task to integrate private and public stakeholders with the goal of industrial transformation and to raise awareness among companies of the need for digital transformation. CAMT and HPC4Poland are very important nodes in that public-private collaboration model as they provide research, scientists, experts and advanced manufacturing and high-performance computing technologies that private companies can use. HPC4Poland has also had extensive cooperation in AI and HPC with other European projects and initiatives such as I4MS, DIHNET, and MIDIH, and had clients in the telecommunication, transportation, and furniture manufacturing companies among others.

**Good Practice** - Polish DIHs, research and innovation institutes are not all focused in one region, instead, they are distributed across the country, so as to reach the highest number of regional SMEs and offer services that are needed on a regional but also international level. This allows for development and support to regional industries and is aligned with the EC idea that proximity is crucial and DIHs should act as the first point of contact for regional companies but also foster linkages with similar service providers and initiatives outside of their region to create a network of such organisations for a wide variety of services.<sup>13</sup>

There is a number of successful DIHs in Slovenia which focus on AI, machine learning, HPC, the use of digital twins in industry, and these technologies are applied in a variety of industries, while some are focused particularly on manufacturing industry. The list of DIHs includes DIH at Jožef Stefan Institute, one of the most successful Slovenian research organisations<sup>14</sup>, DIGITECH SI-EAST<sup>15</sup>, a regional ecosystem supported by competence centres and laboratories, 4PDIH - Public Private People Partnership Digital Innovation Hub<sup>16</sup>, and HCP5<sup>17</sup> among others. An example of a successful partnership model is the regional innovation ecosystem DIGITTECH SI-EAST, which comprises of a competence centre, technology platforms for virtual operations, a laboratory and institute, which provide a wide variety of services in improving business processes for manufacturing companies and SMEs across the country. The HPC5, on the other hand, has partnerships with seven high-tech companies but provides services to a wide range of industries in manufacturing, medicine, infrastructure and hydrodynamics.

**Good Practice** - The Slovenian DIHs have developed long lists of regional and national partners that offer a variety of services and are extremely well connected with private sector companies, higher education organisations, research, development, and innovation organisations which allows them to easily connect with any other party that is well connected with their partners. The DIHs also partner with each other on projects of national and Eu-

4 <https://www.ciirc.cvut.cz>

5 <http://cs.fel.cvut.cz/en/news/detail/1438>

6 <https://www.vsb.cz/en>

7 [https://ec.europa.eu/futurium/en/system/files/ged/cz\\_country\\_analysis.pdf](https://ec.europa.eu/futurium/en/system/files/ged/cz_country_analysis.pdf) (Last accessed: March 2021)

8 <http://www.camt.pl/index.php/en/home-en/>

9 <http://www.hpc4poland.pl/en/>

10 <https://www.psn.pl>

11 <https://piap.pl>

12 <https://przemyslprzyszlosci.gov.pl>

13 <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs>

14 <http://tehnologije.ijs.si/en/>

15 <http://digitech-si-east.eu>

16 <http://4pdih.com/en/intro-page/>

17 <https://www.hpc5.eu/en/projects/>

European scope. Their collaboration is encouraged by the Slovenian Digital Coalition<sup>18</sup> which is an open forum of stakeholders which actively aims to guide the strategic vision of the Republic of Slovenia when it comes to development of a digital society.

In the context of Hungarian DIHs, they have been supported not only through the national strategy but also through establishing “open lab” pilots and platforms for collaboration between the industry and the research and innovation institutions. One of such platforms is BME FIEK - Centre for University-Industry Cooperation<sup>19</sup>, where the Budapest University of Technology and Economics, Siemens, Richter Gedeon, Nokia Solutions and Networks, and Hungarian Electrical established a consortium to join forces in innovation and digitalisation efforts. Another good example is the AddedValue DIH<sup>20</sup>, coordinated by the Added Value Economics Research and Development Institute.

**Good Practice** - Establishing “open lab” pilots and encouraging collaboration between R&I institutions to facilitate access to innovative technologies to SMEs and private individuals that would like to access their technologies. The institution where the open lab is located is a company or a research institution with technological tools that are considered key tools in the national strategy. An open lab pilot includes innovation vouchers that would be used by SMEs and private individuals, which saves them from incurring large expenses for R&D&I.

The Croatian DIHs have been developing long before Croatia adopted the 2030 National Strategy<sup>21</sup> that includes four development goals, one of which is directly related to digital transition of the society and economy. Among the more successful examples of DIHs in Croatia are the Centre for Innovation and Entrepreneurship<sup>22</sup> or DIGIPARC, the Innovation Centre Nikola Tesla<sup>23</sup> which acts as a coordinator of CybersecRDI<sup>24</sup> and CROBOHUB<sup>25</sup>, Agri-Food Croatia<sup>26</sup>, as well as the Algebra Lab<sup>27</sup>, a research and innovation facility within the Algebra University Group. Both the Algebra Lab and the Innovation Centre Nikola Tesla are involved in a range of projects, including those in education, public services, tourism, automotive industry, manufacturing, energy sector and robotics among others. These projects are supported by European initiatives such as I4MS, L4MS and DIH<sup>2</sup> which enables them greater visibility and more networking and collaboration opportunities with other DIHs from the region and internationally. On the other hand, DIHs such as Agrifood Croatia have developed a strong national network of research organisations, innovation providers and enterprise partners for a wide range of solutions in food production ranging from aquaculture to agriculture.

**Good practice** - Croatian DIHs offer a good example of a strategic approach to DIH development. Depending on the more favourable business model and the professional staff

involved in the DIH, it can choose to specialise in a specific area or cover a broader range of areas and projects and pull funds from various national and international funding opportunities.

18 <http://www.digitalna.si/en/communities-and-supporters>

19 <https://fiek.bme.hu/english/>

20 [https://www.addedvalueinstitution.com/?page\\_id=178](https://www.addedvalueinstitution.com/?page_id=178)

21 <https://hrvatska2030.hr>

22 <https://cip.par.hr>

23 <https://www.icent.hr/en/>

24 <https://www.icent.hr/en/CybersecRDI/>

25 <https://www.icent.hr/en/crobohub/>

26 <https://agrifoodcroatia.com>

27 <https://www.algebra.hr/lab/>



## 2

# DIHS MAPPING ANALYSIS

A four-step approach of the mapping exercise and analysis is presented below.

**The first step** includes desk research on EU wide projects and programmes to foster development of DIHs, both within and outside the EU. Efforts were also committed to the assessment of WB development strategies, yearly national statistics, and current level of economic development and technological advancement of each economy in the WB. This element is crucial to understand the broad industry and market constraints that DIHs face when seeking to grow their engagement with stakeholders on a national level.

**The second step** includes identification, categorisation, and analysis of WB DIHs. The primary objective was to understand their issues on an individual level, if those issues are internally or externally generated, and use that feedback to form a clear picture of each economy, and understand what problems WB DIHs face in the course of their operations.

**The third step** relates to creating and fostering a network of DIHs in the region, including EU DIHs in Eastern Europe, bringing stakeholders together to share best practices and establish a more vocal, unified presence in the region.

**The fourth step** is to discuss all the issues identified through national statistical data, including yearly government reports on industry development and through engagement with regional DIHs and their experience when operating in WB markets. Regional and EU DIHs, national strategies and good DIH practices were presented as potential solutions and examples on how to deal with obstacles to development DIHs face.



## 2.1. IDENTIFICATION OF STAKEHOLDERS

The starting point for the mapping exercise was the Joint Research Centre (JRC) DIH catalogue published by the European Commission, where DIHs self-report. This catalogue provided 27 organisations in the WB that already recognise and declare themselves as DIHs. Since the information in the JRC catalogue is self-reported by DIHs, there are 4 criteria verified for an organisation to be listed in the catalogue<sup>28</sup>:

1. Be part of a regional, national or European policy initiative to digitise industry;
2. Be a non-profit organisation;
3. Have a physical presence in the region and present an updated website explaining the DIHs' activities and services provided for the digital transformation of SMEs/Midcaps;

<sup>28</sup> See: <https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-catalogue>

4. Have at least 3 verifiable examples of how the DIH has helped a company with its digital transformation.

In addition to this, the regional network of contacts available to the team of experts was leveraged in order to broaden the list of those to be contacted. Finally, RCC provided communication contact persons (CCPs) for each WB economy for any additional contacts that should be deemed relevant for this mapping exercise.

As a result, a list was prepared including 91 organisations that meet at least four of the above mentioned criteria. The organisations were then contacted and invited to participate in this research. Moreover, the primary DIH respondents recognised other DIH associations, which were also taken into consideration for this analysis.

## 2.2. THE QUESTIONNAIRE

In order to critically assess DIHs, and related innovation support organisations and infrastructure in the WB, the questionnaire was disseminated to identified organisations. The questionnaire focused on several areas such as offered services, whether the organisations support the market in networking and advisory capacity, or if they aim to assist and guide companies in their efforts to digitalise for the future.

Due to the purpose of the assignment, the questionnaire elaborated areas such as: DIH legal form, number of employees and physical/virtual presence, support in the establishment, services offered by DIH and barriers to development which are crucial to understanding the business model and the evolution of WB DIHs. It consists of 11 sections and a total of 31 questions. The complete questionnaire can be found in Annex II to this document.

Aside from assessing 27 DIHs self-reported in the JRC DIH catalogue, additional research was performed on the existing DIHs in the region that are not listed in the catalogue, their legal forms were analysed as well as the governance models, services portfolios, service models and business models.

The questionnaire was disseminated to all identified organisations in an online format using Google Forms and respondents were provided a 2-week time window to fill out the questionnaire. The data was analysed in a quantitative manner, without the use of any statistics software. In addition to filling out the questionnaire some organisations were invited for an online interview and were selected based on the following criteria: the first group of organisations were those already well established in the market as DIHs, and the second group consisted of new organisations yet to be positioned in the market. All interviews were conducted online using the Zoom web platform. The interviews were conducted with relevant individuals from the organisations and lasted approximately 45 minutes. The interviews were then transcribed and looked at in a qualitative manner so as to detect any patterns and key takeaways on DIH development.

As a means of understanding, the following shortened definition of DIH was used, and included at the beginning of the questionnaire:

“A digital innovation hub, in its essence, is an organisation that provides companies with the required technological expertise, equipment and tools (software and hardware) to dig-

italise their products and/or businesses. Apart from start-ups, DIHs offer their services to SMEs, scale-ups, midcaps and public administration. In addition to providing use of advanced equipment and knowledge transfer, DIHs also help companies in finding access to finance, foster innovation ecosystem, offer training and skills development, and network building and test their ideas and products before bringing them to market.<sup>29</sup>”

Guided by this definition the respondents were asked to provide an answer to the following:

- if they have heard before about the term DIH;
- if they can recognise any DIHs in their economy or in the WB region;
- if their organisation is compliant or plans to be compliant to this definition.

In addition to these questions, the organisations provided additional DIHs they recognised, and said how they identify their organisation, if not as a DIH. 74% of respondents have identified themselves as a DIH (40 out of 54).

In total, **54** out of **91** organisations provided their responses to the questionnaire within the prescribed time window, which represents a response rate of 59.3%. Looking at the response rate by economies, the majority of organisations contacted provided their responses, making this above the 50% threshold participation, with the standout of organisations in Bosnia and Herzegovina with the response rate of 87.5% (7 out of 8 organisations responded) and Serbia being in the lowest response rate of 51.5%, with 17 organisations out 33 which responded, however, still above 50% of all contacted organisations in Serbia provided their answers to the questionnaire.

The detailed list of organisations can be found in Annex I to this document, and below is the breakdown of the number of digital innovation hubs by WB economy and respective response rates.

**TABLE 1: NUMBER OF ORGANISATIONS BY WB ECONOMY AND RESPONSE RATES**

Economy	Number of contacted organisations	% of total	Number of responding organisations	% of total	Response rate
Albania	24	26%	13	24%	54.2%
Bosnia and Herzegovina	8	9%	7	87.5%	87.5%
Kosovo*	9	10%	5	55.6%	55.6%
Montenegro	6	7%	3	50.0%	50.0%
North Macedonia	11	12%	9	81.8%	81.8%
Serbia	33	36%	17	51.5%	51.5%
<b>Total</b>	<b>91</b>	<b>100%</b>	<b>54</b>	<b>100%</b>	<b>59%</b>

<sup>29</sup> See: <https://ec.europa.eu/digital-single-market/en/european-digital-innovation-hubs-digital-europe-programme-0>

\* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence

## 2.2.1. UNDERSTANDING DIH

The first set of questions served as a filter for the level of respondents' understanding of the role and purpose of a DIH and identification of the type of their organisation. Based on the responses provided, out of 40 respondents that responded "Yes" to the question "Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?" 16 also responded to the question "If the response to the above question is "No", please indicate what type of organisation do you identify as", providing additional definitions for their organisations, e.g.:

- 4 of them indicated they are an accelerator,
- 3 have indicated they are an incubator,
- 4 have indicated they are a co-working space/hub (with one of them specifying that they aim to also become a DIH),
- 1 has indicated they are a science technology park,
- 1 has indicated they are an angel investors network,
- 1 has indicated that they are an organisation that works in growing companies, and
- 2 have indicated that they are more than one option.

The variation in the level of understanding of what a DIH is and what its roles are has been further exacerbated in the subsequent questions that were answered by the respondents, especially so in services offered (see below).

**TABLE 2: IDENTIFYING AS DIH OR PLANNING TO BE A DIH**

Economy	Yes	No	Total per economy
Albania	9	4	13
Bosnia and Herzegovina	5	2	7
Kosovo*	5	0	5
Montenegro	2	1	2
North Macedonia	6	3	9
Serbia	13	4	17
<b>Total</b>	<b>40</b>	<b>14</b>	<b>54</b>

## 2.2.2. DIH LEGAL FORM

The following set of questions focused on organisational structure and legal form. The key points here were to find out whether they are a single entity or a consortium of multiple entities, what is the legal form of their organisation (or consortium coordinator in case of consortia) and their size. Additionally, in case of consortia, a focus was put on the number of entities and way in which the relationship between the consortium members is governed. From the information received, the majority of respondents are single entities with the legal form of a non-profit organisation.

**TABLE 3: LEGAL ENTITY OF THE ORGANISATION**

Economy	Scientific/research Centre	Public institution	University	Limited liability company (LLC)	Non-profit organisation
Albania	0	0	3	5	4
Bosnia and Herzegovina	0	0	0	1	3
Kosovo*	0	0	0	0	3
Montenegro	0	0	0	1	1
North Macedonia	0	0	0	4	2
Serbia	1	1	0	4	7
<b>Total</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>20</b>

In terms of the size of organisation of single entities and the number of full-time employees (FTE), majority of them are small entities. Several responses were received from single entity organisations regarding their legal form that, in their view, did not conform to the available responses. Namely, the following were received:

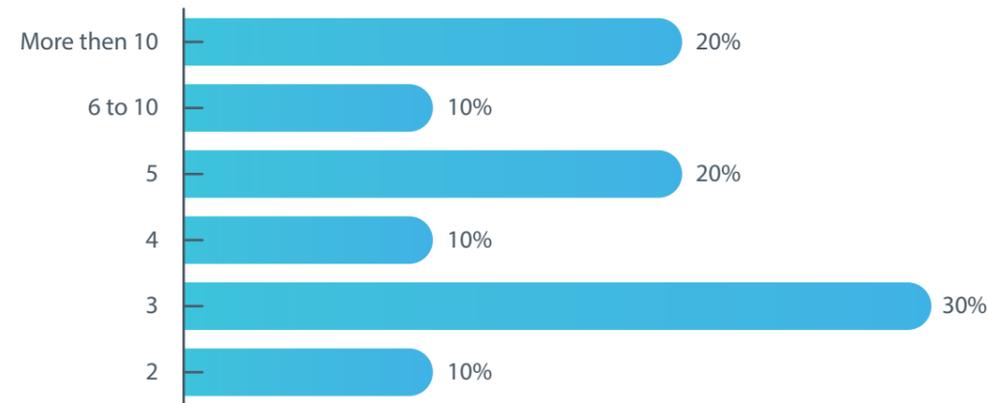
- 1 organisation (North Macedonia) indicating that it is a project unit within a faculty/university,
- 1 organisation (B&H) indicating that it is an international development agency,
- 1 organisation (Montenegro) indicating that it is part/unit of a LLC, and
- 1 organisation (Albania) indicating that it is a SME.

**TABLE 4: SIZE OF THE ORGANISATION**

Economy	Micro entity (less than 10 FTE)	Small entity (10 to 50 FTE)	Medium entity (50 to 250 FTE)	Large entity (250 or more employees)	Do not know
Albania	2	7	2	1	1
Bosnia and Herzegovina	0	4	1	0	0
Kosovo*	1	2	0	0	0
Montenegro	1	1	0	1	0
North Macedonia	3	3	1	0	0
Serbia	2	10	1	0	0
<b>Total</b>	<b>9</b>	<b>27</b>	<b>5</b>	<b>2</b>	<b>1</b>

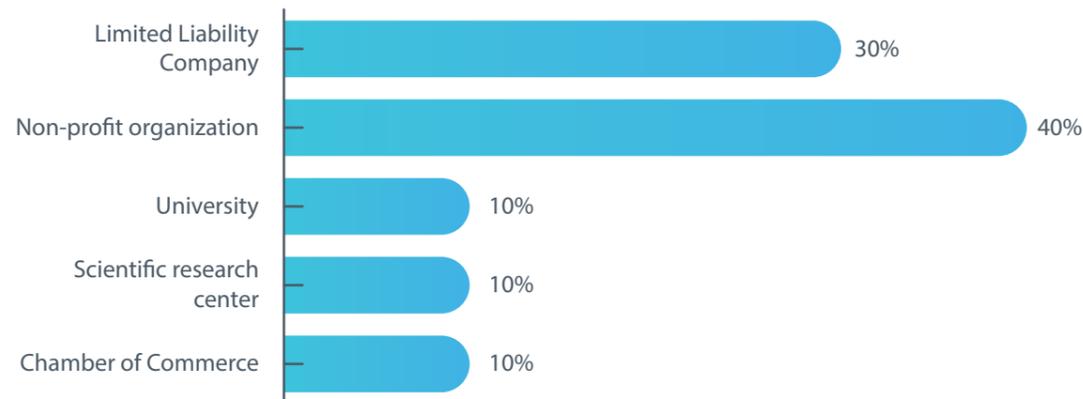
Regarding the respondents that have identified themselves as consortia of multiple entities, the highest representation is of 3 entities in a consortium:

**GRAPH 1: NUMBER OF ENTITIES IN CONSORTIUM (10 RESPONDENTS)**



It has been noted that the majority of them operate as formal legal entities with their coordinators being either a non-profit organisation or limited liability company.

**GRAPH 2: WHAT IS THE LEGAL FORM OF YOUR CONSORTIUM COORDINATOR? (10 RESPONDENTS)**



### 2.2.3. NUMBERS OF EMPLOYEES AND PHYSICAL/VIRTUAL PRESENCE

The next set of questions was related to the number of employees and the type of their presence. The number of employees represents the employees directly involved in the provision of digital innovation services, in the management of the organisation or its projects that directly relate to digital innovation services.

Most of the respondents have less than 5 employees directly involved in digital innovation service provision.

**TABLE 5: NUMBER OF EMPLOYEES DIRECTLY INVOLVED IN PROVISION OF SERVICES**

Economy	Below 2	2 to 5	5 to 10	10 to 20	20 to 50	More than 50
Albania	1	8	3	1	0	0
Bosnia and Herzegovina	1	3	1	2	0	0
Kosovo*	1	1	1	2	0	0
Montenegro	0	0	1	2	0	0
North Macedonia	2	3	3	1	0	0
Serbia	4	7	1	3	1	1
<b>Total</b>	<b>9</b>	<b>22</b>	<b>10</b>	<b>11</b>	<b>1</b>	<b>1</b>

With regards to the presence, most of them have both a physical and a virtual/online presence, with only 2 in total that have solely physical presence, and 4 solely virtual presence.

**TABLE 6: TYPE OF PRESENCE**

Economy	Physical presence	Virtual presence	Physical and virtual/online presence
Albania	1	1	11
Bosnia and Herzegovina	0	0	7
Kosovo*	0	0	5
Montenegro	0	0	3
North Macedonia	0	2	7
Serbia	1	1	15
<b>Total</b>	<b>2</b>	<b>4</b>	<b>48</b>

### 2.2.4. SUPPORT IN ESTABLISHMENT

The part regarding support in establishment refers to the external support and type of source in the establishment of their DIHs. Only respondents that identified their organisations as a DIH were asked to respond to these questions. Despite of this, three respondents that did not identify their organisations as DIHs have provided answers and named their sources of support - Swiss Embassy, UNDP and Austrian Development Agency.

All responses provided gave valuable insight in different (and common) sources of support that the respondents have been receiving in establishing their organisations, as the majority of respondents did receive support in establishment, as shown below.

It is worth noting that the biggest support, as well as lack thereof has been reported in Serbia, with 9 responses confirming the support provided, and 6 responses indicating the lack of support. Additionally, organisations in North Macedonia recorded the highest rate with respect to the support provided for their establishment.

**TABLE 7: EXTERNAL SUPPORT IN ESTABLISHING DIH**

Economy	Yes	No	Total respondents per economy
Albania	6	5	11
Bosnia and Herzegovina	4	3	7
Kosovo*	3	2	5
Montenegro	0	2	2
North Macedonia	7	1	8
Serbia	9	6	15
<b>Total</b>	<b>29</b>	<b>19</b>	<b>48</b>

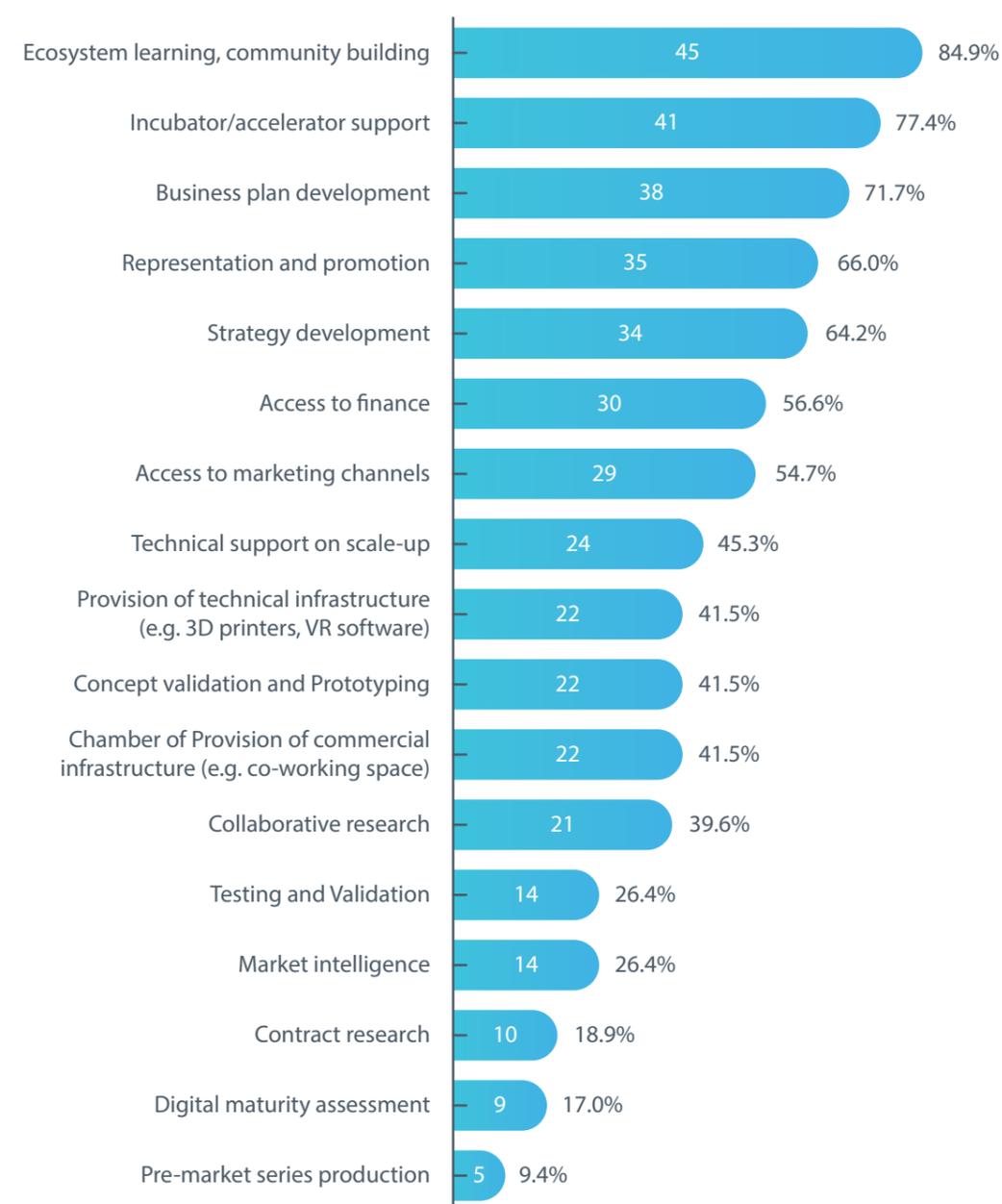
The sources of external support are relatively equally represented in the responses provided by the respondents, consisting of both national and multilateral sources. Several sources were consistently mentioned by multiple respondents such as support and grants from the Government of Serbia, Government of Albania, Swedish Embassy, Swedish Government, Government of Norway, Gabor, EU for Innovation, USAID and Horizon 2020.

### 2.2.5. SERVICES OFFERED BY DIH

The following set of questions relates to the types of services the organisations offer and different verticals they cover within the digital innovation arena. The respondents were asked to provide as extensive as possible list of services and verticals, drawing on the definitions of services and verticals used in the existing EU DIH programmes, the Digital Innovation Hub Networks (DIHNET)<sup>30</sup> and DIHelp<sup>31</sup>. Multiple answers were possible for each question.

Top four services most selected by the respondents are ecosystem learning and community building services, followed by incubator/accelerator support and business plan development.

**GRAPH 3: SERVICES OFFERED BY RESPONDENTS**



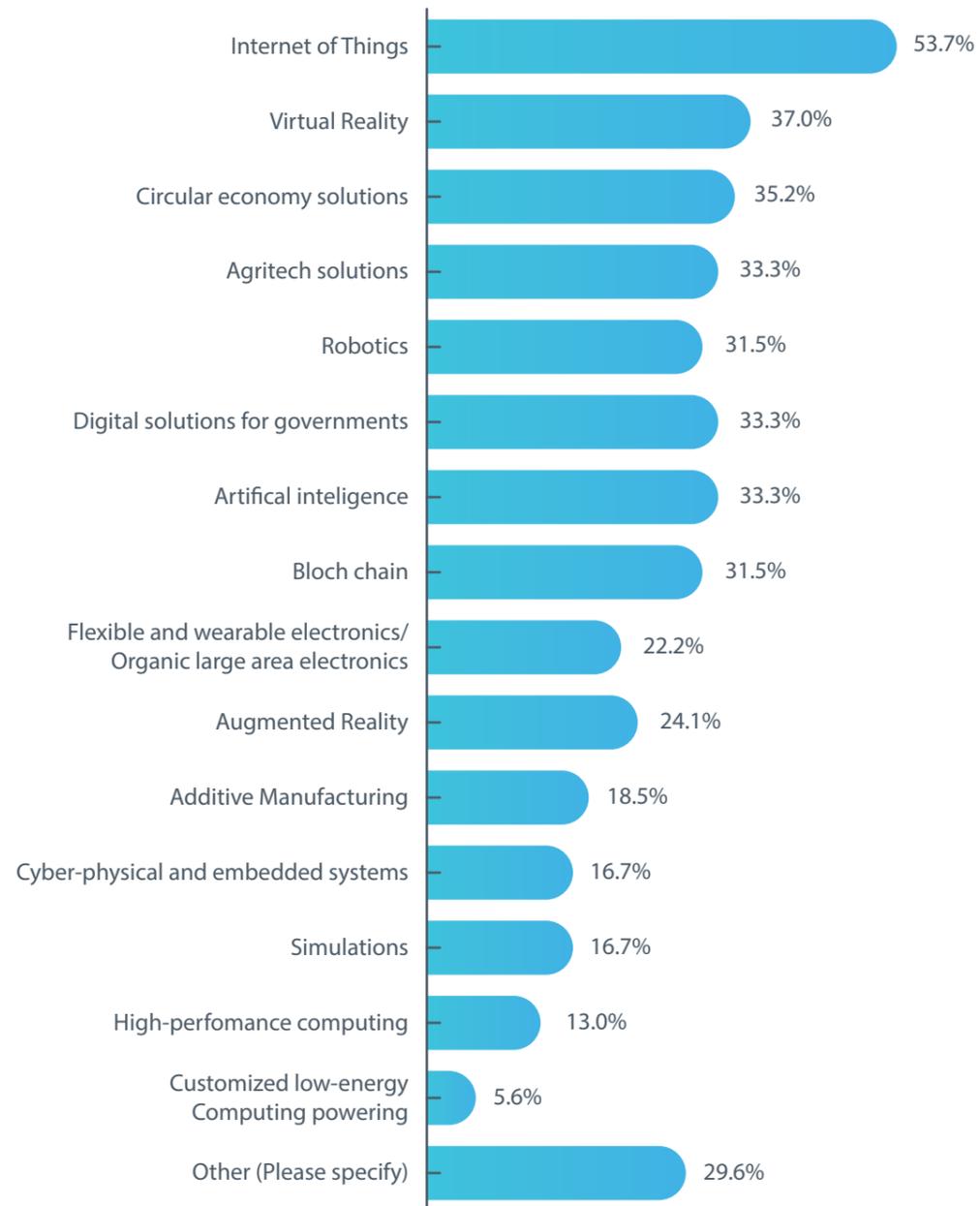
What is important to note here is that all “core technical” services are located in the lower half of the graph - recall that the definition of DIH as “an organisation that, in its essence, provides companies with the required technological expertise, equipment and tools (software and hardware) to digitalise their products and/or businesses” was used.

The responses received regarding the verticals covered are presented below.

<sup>30</sup> <https://dihnet.eu/>

<sup>31</sup> <https://dihelp.eu/>

**GRAPH 4: VERTICALS COVERED BY RESPONDENTS**



Low level of representation of responses is evident. This can be seen in the vertical that was checked most by the respondents, “Internet of Things”, which was checked by only 53.7% of respondents (29 out of 54). The next most represented response has a mere 37% representation rate. This further indicates that the variation in the level of understanding among the respondents of what a DIH is and what its roles are is present and not negligible.

This is additionally supported by the fact that 29.6% of respondents (16 out of 54) have also checked “Other” and provided additional insight into what they perceive as verticals. Some of them include:

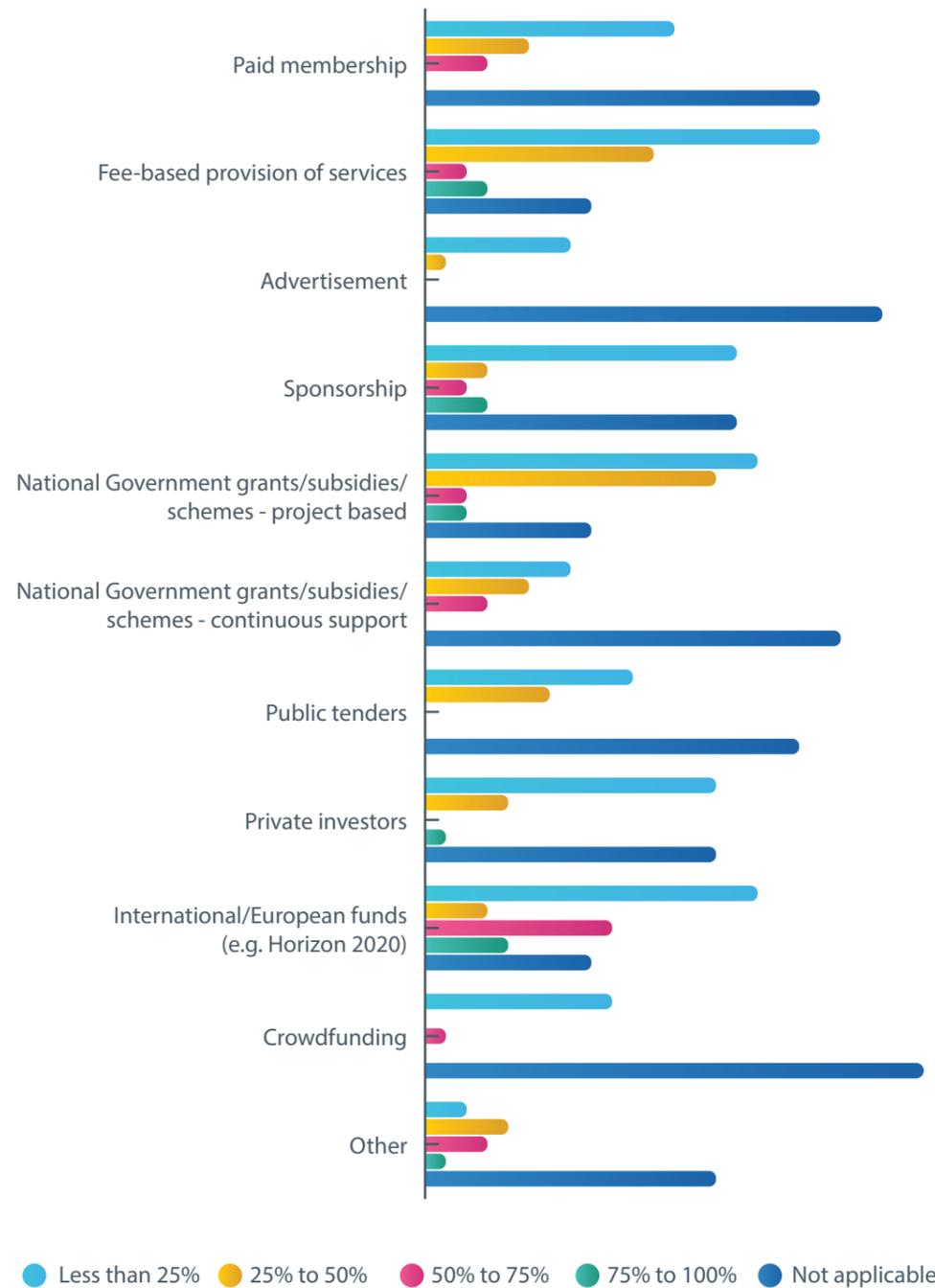
- Health related services
- Social entrepreneurship
- Basic start-up support
- Gaming
- Consulting, Software Development (HR Solutions, Fintech)
- Open-Source Digital Infrastructure (cloud)
- SaaS
- Medical Sciences
- CNC machining, injection moulding parts design
- Consulting services for corporations and SMEs

## 2.2.6. REVENUE DISTRIBUTION AND FEE STRUCTURE

The respondents were asked a set of questions regarding their sources of revenue, revenue models that they apply, the average annual number of users they have and their average annual turnovers to better understand the financial situation among the respondents across the WB region.

Based on the responses, the sources of revenue that were checked most by the respondents were “Fee-based provision of services” (checked by 19 out of 54 respondents), followed by “International/European funds (e.g. Horizon 2020)” and “National Government grants/subsidies/ schemes - project-based” (both checked by 16 out of 54 respondents). In addition to the low representation rates (the most represented/checked answer has a rate of 35.8%), the most checked answers are in the category of “Less than 25%”.

GRAPH 5: SOURCES OF REVENUE

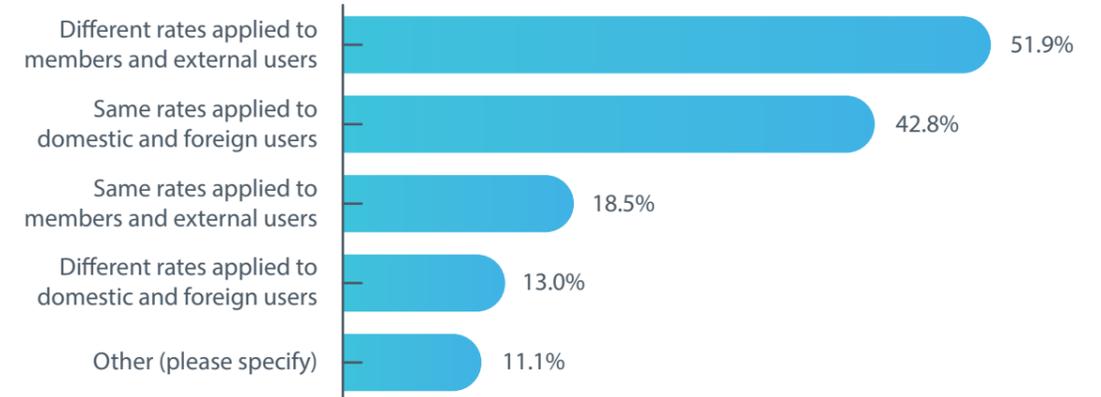


Within the category “Other” that was checked by some of the respondents, an insight was gained into the alternative sources of revenue that the respondents have, such as:

- International governmental donor grants - project based,
- Community Space Cafe, Conference and events services, Corporate partnerships,
- Local support organisations,
- Student Tuition Fees, etc.

The respondents were also asked how they structure their fees based on the types of customers they have. The majority of respondents apply different rates to members of their organisations and to external users - 51.9% (28 out of 54), but most of them also apply the same rates to domestic and foreign users - 42.6% (23 out of 54):

GRAPH 6: FEE STRUCTURE



Out of the six respondents that checked “Other”, four have indicated that they offer their services for free.

Breakdown of the number of users by WB economy provides additional insight into the specifics of each category. The most represented category - “20 to 50” - has an equal distribution among all WB economies. The largest category - “More than 100” - is the majority response for Kosovo\* (60%, 3 out of 5) which has the second lowest number of respondents:

TABLE 8: BREAKDOWN OF AVERAGE ANNUAL NUMBER OF USERS BY ECONOMY

Economy	Below 10	10 to 20	20 to 50	50 to 100	More than 100	Grand Total
Albania	2	2	2	4	3	13
Bosnia and Herzegovina	0	0	3	2	2	7
Kosovo*	0	1	0	1	3	5
Montenegro	0	0	3	0	0	3
North Macedonia	3	1	4	0	1	9
Serbia	1	4	4	3	5	17
<b>Total</b>	<b>6</b>	<b>7</b>	<b>16</b>	<b>10</b>	<b>14</b>	<b>54</b>

With respect to the average annual turnover of the respondents, the most represented category is “More than 250k EUR” which was checked by 14 out of 54 respondents (26%), followed by “50k to 100k EUR” - 22% representation rate (12 out of 54).

Breakdown of the annual turnover by WB economy provides additional insight into the specifics of each category. The most represented category - “More than 250k EUR” - has an equal distribution among all WB economies:

**TABLE 9: BREAKDOWN OF AVERAGE ANNUAL TURNOVER BY ECONOMY**

Economy	Below 5k EUR	5k to 20k EUR	20k to 50k EUR	50k to 100k EUR	100k to 250k EUR	More than 250k EUR	Grand Total
Albania	2	4	0	3	2	2	13
Bosnia and Herzegovina	1	0	1	1	1	3	7
Kosovo*	0	0	0	2	1	2	5
Montenegro	1	0	0	0	1	1	3
North Macedonia	2	0	0	3	2	2	9
Serbia	4	2	1	3	3	4	17
<b>Total</b>	<b>10</b>	<b>6</b>	<b>2</b>	<b>12</b>	<b>10</b>	<b>14</b>	<b>54</b>

### 2.2.7. BARRIERS TO DEVELOPMENT

The final set of questions addressed one of the key aspects of interest for this mapping exercise, which relates to barriers to further development of the respondents as DIHs. Further details and analysis were gathered through the interviews. Regarding the questionnaire and the collected responses, “Insufficient revenues”, “Lack of access to finance/ funding options” and “Insufficient Government support” were most checked by the respondents as a significant or somewhat significant barrier to further development.

**GRAPH 7: SIGNIFICANCE OF BARRIERS TO FURTHER DEVELOPMENT AS DIH**



In addition, “Lack of regional DIH associations/cooperation and promotion bodies” and “Lack of national DIH associations/cooperation and promotion bodies” have been recognised by the respondents as being more significant than insignificant barriers to further development. The questionnaire also assessed the level of regional cooperation, if some respondents are already members of (or cooperate with) networks of similar organisations either locally or internationally. Most of the respondents (66%, 36 out of 54) are not

members of/do not cooperate with such networks. Out of 18 respondents that indicated that they are members of/cooperate with such networks, only one did not recognise their organisation as a DIH. Some of the networks provided in the responses include:

- DIH-HERO (EU);
- DIH2 (EU);
- iDEAlab Network (Serbia, Bosnia and Herzegovina, Montenegro);
- i4MS (EU);
- International Association of Science & TechParks - IASP (International);
- Startup Europe Western Balkans Network (WB);
- ICT Hub (Serbia);
- SmartAgriHubs (EU), etc.

The respondents were also asked about the main benefits of being member of/cooperating with such networks. The most common answers were networking and experience/know-how sharing. The responses gathered through interviews are presented in more detail in the next section.



# 3

## INTERVIEWS

Interviews with the respondents were conducted in order to gather on-the-ground insights with respect to the challenges and barriers to development DIHs encounter in their daily operations.

The aim was to include respondents which are currently at different stages of development and maturity as DIHs/digital innovation organisations in order to understand how they will respond to the topics of interest for the assignment and see if there are common messages that would transpire through the interviews. The interviews were structured as semi-structured interviews, and the respondents were presented with three major topics of interest to discuss:

**LEVEL OF UNDERSTANDING OF DIH** – The aim was to learn how the respondents understand the term and role of a DIH, and how they perceive themselves as a DIH. Moreover, it was important to establish how the respondents perceive the level of understanding of what a DIH is among the users of their services, as well as among policy makers.

**EXPECTATIONS FROM POLICY MAKERS** – The aim was to learn more on the perception of the respondents regarding the existing initiatives and actions taken by their respective governments to boost digitalisation efforts with focus on the promotion of DIHs. Additionally, they were asked to elaborate on what they think is currently missing and should be done by the policy makers in order to enhance digitalisation efforts and DIH promotion.

**LEVEL OF DEMAND FOR SERVICES** – The aim was to learn about the level of demand for digitalisation services, R&D and support services from the users of their services. Specifically, the aim was to understand what the respondents perceive as critical mass vs. the actual demand they encounter daily and to identify the reasons for the existence of this potential gap.

Interviews were conducted with **22** out of **54** organisations that responded to the questionnaire. Below is an overview table of the interviewed respondents and the categories that show their current stage of development and maturity as DIH:

Name of organisation	WB economy	Identified as DIH	Size	# of direct employees	Average annual # of clients	Average annual turnover EUR
CEED	Kosovo*	Don't know	Micro	Below 2	50 to 100	50k to 100k
Coolab	Albania	Yes	Micro	2 to 5	More than 100	50K to 100k
Oficina	Albania	Yes	Micro	2 to 5	Below 10	5k to 20k
BioSense	Serbia	Yes	Medium	5 to 10	50 to 100	> 250k
SEEU TechPark	N. Macedonia	Yes	Small	5 to 10	20 to 50	> 250k
Digitalizuj.me	Montenegro	Yes	Micro	5 to 10	20 to 50	100k to 250k
Innvest	Albania	Yes	Micro	2 to 5	50 to 100	5k to 20k
MASIT	N. Macedonia	Yes	Micro	5 to 10	More than 100	100k to 250k
UNDP Accelerator Lab	Bosnia and Herzegovina	Yes	Medium	10 to 20	More than 100	> 250k
CIRKO	N. Macedonia	Yes	Small	10 to 20	20 to 50	50k to 100k

Name of organisation	WB economy	Identified as DIH	Size	# of direct employees	Average annual # of clients	Average annual turnover EUR
Health Tech Lab	Serbia	Yes	Micro	2 to 5	20 to 50	Below 5k
Venture UP	Kosovo*	Yes	Micro	5 to 10	More than 100	50k to 100k
Jakova Innovation Centre	Kosovo*	Yes	Micro	2 to 5	10 to 20	100k to 250k
Yes Business Incubator	N. Macedonia	No	Micro	2 to 5	10 to 20	100k to 250k
Business Accelerator UKIM	N. Macedonia	Yes	Micro	2 to 5	Below 10	50k to 100k
X Factor Accelerator	N. Macedonia	Yes	Micro	2 to 5	20 to 50	50k to 100k
Networks INT	Bosnia and Herzegovina	Yes	Micro	2 to 5	50 to 100	Below 5k
ETF Robotics Lab	Serbia	Yes	Small	20 to 50	Below 10	100k to 250k
Razlivalište	Serbia	No	Micro	Below 2	More than 100	5k to 20k
STP Čačak	Serbia	Yes	Micro	Below 2	20 to 50	5k to 20k
STP Belgrade	Serbia	No	Micro	10 to 20	50 to 100	More than 250k
Polis University	Albania	Yes	Medium	2 to 5	10 to 20	Below 5k

### 3.1. LEVEL OF UNDERSTANDING OF DIH

It was clear from the interviews that there is no single universal agreement among the respondents on what a DIH is by definition which was provided at the beginning of the questionnaire.

The interviews revealed several tendencies and common insights shared by the respondents, most important of which include:

- Small organisations (with less than 5 employees and organised as single entities) perceive themselves as DIHs primarily because they provide ecosystem & community building services, business development & support services, and act as brokers that connect start-ups with providers of necessary infrastructure for R&D and digital innovation. Users of their services are usually teams of people that are at pre-concept stages of their start-ups. Examples of such organisations include Health Tech Lab, Razlivalište, Officina, etc.
- Medium organisations (with 20 or more employees and predominantly organised as consortiums) perceive themselves as DIHs primarily because they provide their users with the necessary infrastructure and equipment to perform R&D and digitisation of their products and services. The majority of such organisations are parts of (or cooperate closely) with universities and research institutions to leverage on the existing infrastructure and capacity, and their users are start-ups in a more mature stage of

development and mature companies that seek innovation. Examples of such organisations include CIRKO, ETF Robotics Lab, SEEU Tech Park, etc.

### KEY TAKEAWAY #1

There is a need to boost the level of understanding of what a DIH is and what its roles are. This can be also connected to the increase in awareness, exposure to all types of DIH in the region and peer-to-peer learning. Moreover, a form of experience sharing such as explanatory workshops and networking within the region and beyond can be also adopted.

## 3.2. EXPECTATIONS FROM POLICY MAKERS

Regardless of their stage of development, most of the respondents indicated through the interviews that more needs to be done by their respective policy makers in order to foster further development of digital innovation, and especially of DIHs. One common message that transpired through the interviews is that DIHs need to have a proper legal entity status eligible to receive financial and business support from the government, as not all economies of Western Balkans have officially drafted legislation recognising the proper legal status of DIHs for their respective economies. The DIHs have a status of a legal entity but the current legal entity types that are offered do not fit these types of organisations. Another common message is that there is a need to increase dialogue between the DIHs on the ground and policy makers so that the governments support to all market stakeholders can be more effective, especially when addressing barriers to development DIHs and similar organisations are faced with.

Another significant reported barrier to the development of DIHs in WB is the inability to obtain funding and insufficient funds from public sources. The WB economies have made significant improvements in terms of establishing ministries (or broadening existing institutional responsibilities) that are in charge of innovation funds. However, much work remains to be done to effectively steer the investments in the right direction and sectors for development. An example can be the EU initiative I4MS, which in the first round of investment focused on 4 sectors, Robotics, Internet of Things, High Performance Computing and Laser Technologies, then went on to increase their investment and support to the Robotics segment. Some kind of direction in digitalisation efforts is needed on a regional level, but also on the level of respective economies to select key sectors that would push digitalisation efforts forward faster.

An applicable EU approach has been to increase financing opportunities for DIHs by offering grants and vouchers to SMEs that would collaborate with DIHs, in that way cascading investments to all market stakeholders, supporting both SME digitalisation and DIH development in the same initiative. One observation by an interviewed organisation was that stronger financial support is needed for start-ups that are in initial development stages and wish to develop competitive applications for EU funds, where they would first need investments for capacity building.

The government could assist DIHs in promoting a regional but also international cooperation through frameworks and initiatives in digitalisation efforts, innovation and research

and development. This type of network would be especially beneficial to younger organisations to gain visibility and create awareness of the type of services they offer. That would also help steer the private sector initiatives, coming from SMEs and large companies. Multiple organisations interviewed consider that more needs to be done to involve the private sector and stress the importance of transformation on a national level, as a key step in becoming more competitive regionally and internationally for each of the WB economies. Regional and international promotion of DIHs would connect various market stakeholders for sharing of best practices and knowledge but also for potential partnerships in future engagements.

### KEY TAKEAWAY #2

There is a need for the governments to further support and promote DIHs. This can be done by possibly adopting a regional Western Balkans framework for cooperation of policy makers in order to provide incentive schemes for private sector initiatives, coming from SMEs and large companies.

## 3.3. LEVEL OF DEMAND FOR SERVICES

When asked in the interviews about the current demand for services and whether it decreased during the global pandemic crisis, the largest number of DIHs explained that, in fact, the demand increased contrary to the assumptions that it would decrease. The current situation affected positively the demand for digitalisation, as it made the companies and institutions more aware of the importance of having a digital presence. Prior to the pandemic, the companies and institutions found sufficient to only have a website where they would put the important information regarding their work, but now, they are willing to expand and are being aware of the possibilities they have to elevate their digitalisation. With this in mind, the DIHs have a significant increase in work and are satisfied with this improvement, as the society will have a substantial development in this field.

Moreover, another positive remark was the significant increase in demand right after the foreign direct investments entered the economy. This critical mass such as the foreign direct investments changed the landscape and included the DIHs in all FDI (Foreign Direct Investments). An example of this is the FDI in North Macedonia, which opened production facilities and included CIRKO as a DIH. It allowed the DIHs to be proactive in terms of R&D and to be engaged in all of the new foreign investments in the economy by providing their expertise and advice on certain matters. This is the area where increased government action and support with international visibility can connect public and private sector stakeholders but also peers for the purposes of collaboration on applications for funds and projects.

However, the obstacle to demand for services relates to immaturity of the market in the Western Balkans and the lack of awareness of the large part of companies to demand those kinds of services. There is currently a need to develop the understanding, help the companies and institutions develop their capacities, help them provide services that might be in demand by the private sector, help them in adoption of very slow legislative processes

where these topics would come on the agenda and mobilise adequate financial and political support. Due to the complexities of the industry, this takes a lot of time, hence causing loss of the momentum.

Some differences have been noted as regards the level of demand for services in small and medium organisations. It seemed that the established organisations, Science Technology Parks (STPs) that are part of universities and/or organisations established by the government did not have any issues with the amount of work they are offered to do and services to deliver, primarily because the government involvement increased their credibility in the eyes of market stakeholders. However, the lesser known DIHs, with similar service offering expressed their concern as regards the lack of exposure. This can be related to the market immaturity, which does not allow all DIHs to prosper, but rather puts the focus only on a limited number of established organisations.

### KEY TAKEAWAY #3

Research centres within universities are better positioned to attract demand for services and to cater to the demand. To boost the demand for DIH services, the universities can be promoted in a coordinated manner as DIH leaders across the Western Balkans.



## 4

# SUMMARY OF FINDINGS

Overall, the results show that DIH policies created are aimed at promoting collaborative mechanisms for digitising manufacturing, large-scale projects, and open innovation among a variety of local/regional actors, such as accelerators, universities, tech parks, SMEs, start-ups, business groups, etc. The DIH concept is built upon joint and/or bottom-up coordination, and cluster-like functioning, promoting resource mobilisation to address industry challenges, and creating networks addressing current digitalisation challenges. As a result, DIHs allow the co-design of specific projects involving all stakeholders, both public and private, while also fostering collaboration and consultation between local/regional stakeholders that can reshape or adapt current technologies and structures for the future transformation.

Beyond key practices including experimenting with and creating emerging digital technologies or training, these innovative platforms for cooperation undertake other roles to help with the digitalisation transition, such as eliminating structural obstacles to digitalisation, aligning local/regional industry priorities, collaborating with policymakers, and choosing leading players to evaluate digital innovations. Furthermore, the findings illustrate the diversity of hubs as well as the numerous regional strategies for hub growth.

Some interesting conclusions may be drawn from all these observations. First, it is important to remember that there is not only the variety of hubs, but also numerous approaches adopted by policymakers in each area to "adapt" the DIH concept to their specific needs. While 74% of the respondents identified themselves as a DIH (40 out of 54), the majority predominantly provide supplementary services, which shows the difference in the level of understanding among the respondents of what a DIH is and what its roles are. Surprisingly, DIHs are creating an endogenous, scalable, and diverse collection of operations, goals, and functions under the general umbrella of digitisation, moving beyond the defined plans. Second, the DIH concept is based on an innovation policy approach that aims to promote not only open innovation among stakeholders, but also enable co-participation and interact with government stakeholders. In this sense, bottom-up collaboration and open creativity, as a result of co-participation and negotiation, adjustment, and learning by doing, are emphasised. Third, despite the fact that digitalisation is said to have a positive effect on organisational success and networking in SMEs, we observe that implementing new technologies in SMEs is challenging and risky due to their limited knowledge and investment.

Based on the research conducted, and the mapping exercise, digital innovation hubs are not fully understood by the stakeholders in WB. The majority of actors have access to one or a couple of resources provided by a DIH (incubation, preparation, and networking), but not to the whole cycle. The main component missing is scale-up or investment, which shows that further investment in start-up scale-up is strongly recommended, which may include crowdfunding, venture capital, and angel investors. Better defined and structured legal form is needed to increase DIH credibility regarding their broader access to funding options. A more structured legal form will also require a better organised and defined governance model and with the growth in the number of employees, the division of roles will be clearer and create a formal organisational structure.

According to the interviews, while companies in the WB economies recognise the need for digital transformation, few are willing to pay for DIH services that would aid their company in its digitalisation efforts. A suggestion here is to encourage businesses to spend more

on DIHs as part of their digitalisation process rather than be dependent on donor funds, where donors would still be included on a smaller scale, but the focus of funding would shift to DIHs.

Most WB governments have made considerable efforts to develop a national digitalisation strategy, establish innovation funds, and accelerate private sector's digitalisation pace, all of which are in line with EU initiatives. Governments should, however, take into account the unique characteristics of each of the Western Balkan economies and concentrate on main industries and sectors of national relevance. To promote long-term growth driven by private sector demand, policymakers at all levels in all economies must consider the needs of SMEs and key industry sectors.

This support would increase demand for DIH services, especially for industries that are strategically important in each economy. It is important to provide a concrete structure for collaboration between Science and Technology Parks, Research Organisations, and Incubators, as well as private sector companies with the ability to fund R&D and innovation projects. The results of those research activities could then be disseminated to SMEs which may not have the financial resources to invest in R&D and innovation. By definition, a DIH, which is a one-stop-shop for digitalisation services, should provide a very wide range of services, but in practice DIHs usually try to specialise at least in their field of technological competence, e.g. additive manufacturing, robotics, etc.

Overall, main DIHs activities include: – ecosystem learning, community building; incubator/accelerator support; business plan development; strategy development; access to finance; technical support to scale-up; provision of technical infrastructure.

Finally, it is important to take regional and local steps. Majority of actors/DIH are attempting and willing to cooperate with the field (sharing knowledge) on different levels, including information spill-overs. As a result, a well-structured network will allow all organisations, including start-up communities, to promote collaboration. Finally, it is worth noting that all DIHs discussed the concept that hubs are, by definition, in the trial-and-error and learning-by-doing stages of development.



FUNDING INSTRUMENTS  
TO SUPPORT  
INNOVATION AND DIH  
DEVELOPMENT

From 2014 to 2020, the largest funding source for DIH development and SME digitalisation was the European Union and [Horizon 2020](#) programme. It is the largest EU programme for Research and Innovation that had invested nearly €80 billion over the course of 7 years, not accounting for private sector investments that a programme of this scale was sure to attract. The funding from Horizon 2020 was meant to provide financial and business support to SMEs in their digitalisation efforts. The SMEs could apply for Open Calls for innovative experiments with DIHs, so that part of Horizon 2020 funding would cascade to DIHs as well. Additional support was provided to DIHs through mentorships, trainings, sharing of best practices and establishing European networks of Digital Innovation Hubs to strengthen collaboration of various stakeholders in the market and improve DIH service offering. After 2020, H2020 will be succeeded by a new initiative [Horizon Europe 2021-2027](#), with a proposed budget of €100 billion for research and innovation, with a particular focus on climate objectives, which will represent cca. 35% of spending of Horizon Europe programme. The following are sources of EU support programmes for SMEs and DIHs, primarily funded by Horizon 2020, which will continue to provide support to DIHs, even though it is being succeeded by Horizon Europe as of 2021.

#### I4MS EU Initiative to digitalise the manufacturing industry

ICT Innovation for Manufacturing SMEs (I4MS) is a collection of H2020 projects which are funded to increase the use of ICT in business operations of manufacturing SMEs<sup>32</sup>. Phase 4 of I4MS officially started in June 2020 and its goal is to support service providers, such as DIHs, Innovation Actions and Competence Centres, to identify best practices and define the technological services they offer through a business impact perspective with a budget of 35 million EUR.

#### SAE Smart Anything Everywhere

Smart Anything Anywhere (SAE)<sup>33</sup> is an initiative which aligns different Innovation Actions in various areas, one of which is Widening DIHs through the BOWI project<sup>34</sup>. DIHs will have a chance to join the network and access long-term opportunities<sup>35</sup>.

#### PPP Public Private Partnership

Public Private Partnerships<sup>36</sup> are meant to enable collaboration between the public and private sector for a more strategic approach to research and innovation. The PPP cover several fields such as Cybersecurity, Photonics, High Performance Computing, Robotics, Future internet, Factories of the Future and ECSEL. All of the mentioned models have their own funding schemes.

<sup>32</sup> <https://i4ms.eu/open-calls/>

<sup>33</sup> <https://smartanythingeverywhere.eu/funding/>

<sup>34</sup> <https://bowi-network.eu>

<sup>35</sup> [https://smartanythingeverywhere.eu/open\\_calls/bowi-2/](https://smartanythingeverywhere.eu/open_calls/bowi-2/)

<sup>36</sup> <https://ec.europa.eu/digital-single-market/en/public-private-partnerships>

## InnovFin EU Finance for Innovators – European Investment Bank financial instrument

To support research and innovation in and outside of the EU, the EIB has developed special financing instruments for large-scale research and innovation projects within universities and public research organisations<sup>37</sup>.

The Digital Europe Programme (DIGITAL)<sup>38</sup> is the first financial instrument of the EU focused on bringing digital technology to businesses and citizens. DIGITAL will provide strategic funding to answer these challenges, supporting projects in five crucial areas: super-computing, artificial intelligence, cybersecurity, advanced digital skills, and ensuring a wide use of digital technologies across the economy and society, including through Digital Innovation Hubs.

### NATIONAL FUNDING OPPORTUNITIES

Aside from the EU and multilateral funds, the economies of Western Balkans have been developing their own innovation, science and research funds to provide financial and business support to SMEs, as well as incubators, accelerators and DIHs. The governments of Albania, Montenegro, North Macedonia, Kosovo\* and Serbia have established innovation funds and worked with banks and public sector stakeholders on developing financing instruments for organisations in their respective economies. Interviews with stakeholders in Bosnia and Herzegovina revealed that the government of Bosnia and Herzegovina has yet to recognise Science and Technology Parks, Incubators, Accelerators and DIHs as eligible parties that can receive national funding and support for development, with the relevant legislation being in a process of elaboration and planning.

The WB DIH development can be supported through both European and national initiatives summarised as follows:

- H2020 (in the past) and Horizon Europe programme are relevant for DIHs in WB region to build and expand network of DIHs, get funding (salaries) for more R&D activities, etc.
- Cascade funding in H2020 (current) and Horizon Europe (future) are relevant for SMEs serviced by DIHs in WB region. DIHs can support their SMEs to apply
- Digital Europe Programme is a new programme focused on adoption of new digital technologies. New programme, so no experience, but promises to be highly relevant for DIHs and their stakeholders
- National (and donor) funding can be used to help align with and contribute to national digitalisation strategy, Smart Specialisation Strategies
- Specific funding for digital skills could be utilised (if available)
- Specific funding for capacity building or internationalisation, or export or other could be utilised, if existing.

<sup>37</sup> <https://www.eib.org/en/products/mandates-partnerships/innovfin/index.htm>

<sup>38</sup> <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>

This research has identified six priority steps that should be taken in order to move forward the initiative of raising visibility and outreach of DIHs, which are described below along with the related responsibilities.

### RECOMMENDATION 1: DEVELOPING AND EXPANDING KNOWLEDGE OF THE DIH CONCEPT

- Continue to improve and grow the information base on and for DIHs and prepare for its transformation into a Central Information Portal for the entire network of Western Balkan DIHs, as well as other hubs and technology centres
- Develop a framework for digital transformation with a DIH as a central actor, with inclusion of other stakeholders involved in a regional/national initiative for digitisation, local governments, industry associations, competence centres, incubators
- Design and promote the Western Balkan DIH catalogue where the universities can be promoted as DIH leaders across the Western Balkans
- Formulate policies for future establishment of National DIHs Network which would take the lead in organising training/events/conferences for experts/institutions on the national level at least twice a year.

### RECOMMENDATION 2: SHARE EXPERIENCES FROM DIFFERENT WB ECONOMIES AND REGIONS

- More dedicated activities should be organized to publicise and encourage the DIH concept, including in economies where gaps have been identified
- Developing and organising an Annual Conference of DIHs from Western Balkan economies and the regions, as well as adopting a regional Western Balkan DIH framework with a vision for digital transformation within the region and the role DIHs will have
- Establishment of national DIH networks as part of Western Balkan DIHs network
- Establish connections between Western Balkan DIHs and EU DIHs with the possibility of peer-to-peer learning and workshops

### RECOMMENDATION 3: ENSURE HIGH-LEVEL POLITICAL SUPPORT WITHIN THE WESTERN BALKANS ECONOMIES FOR DIH INVESTMENTS THROUGH HIGH-LEVEL POLICY ROUNDTABLES AND FORUMS, SHOWCASING HOW DIHS CAN BE SET UP AND OPERATIONALISED WITHIN A SPECIFIC NATIONAL CONTEXT

### RECOMMENDATIONS 4: ENHANCE THE EU'S ADDED VALUE BY USING NEWLY ADOPTED HORIZON EUROPE FUNDS AND DIGITAL EUROPE PROGRAMME FUNDING

- Horizon Europe is seen as an important catalyst in seeding and growing the DIH ecosystem in the Western Balkans, leaning on the previous H2020 successful experience
- EU funds should be used to link EU, national, and regional infrastructures; facilitate the convergence of EU-schemes and encourage transnational experiments and strengthen



DIH business models by pooling capital through various programmes; and wider participation in large-scale projects with already established DIHs

### RECOMMENDATION 5: LAUNCH PILOT PROJECTS TO FOSTER SYNERGIES AND THE CREATION OF LARGER PROGRAMMES

- The scope and purpose of these pilot projects should be various, with the goal of demonstrating mechanisms for:

upgrading existing competence centres to Digital Innovation Hubs; facilitating knowledge transfer into the DIH network; combining different funding sources within scalable projects; creating synergies with hubs active in other advanced technologies; and federating existing projects funded by a public-private partnership.

### RECOMMENDATION 6: BOOST THE OUTREACH ACTIVITIES WITHIN THE REGIONS WITH FEW OR NO DIHS

- Establish partnerships programmes to connect operational DIHs with the ones at the early stage, as to foster rapid uptake of these initiatives, as well as provide already established funding practices to seed and develop new DIHs, leading to increased collaboration between DIHs.

This research investigated the Digital Innovation Hubs, with a specific focus on Western Balkan economies and emphasises the importance of knowledge bases in facilitating the implementation of digital technology requested by innovators, as well as taking the lessons and good practices from DIHs in the Central Easter Europe, which are particularly discussed.

In summary, the findings of this research provide a thorough understanding of country-based DIHs in five EU Member States aimed at easing the transition to digitalisation by deciphering the key elements of that digitally-focused innovation polices, fostering growth and new path development, especially path to modernisation.

Theoretically, the results make three major contributions. First, the research describes the digital imprinting mechanism and demonstrates how the inner characteristics of national DIHs function. Second, it points out the major inter-organisational, as well as developmental barriers Western Balkan DIHs are currently facing. Third, it stresses the importance of DIHs in fostering relations between various actors and provides recommendations as to how DIHs can serve as external enablers for the growth of innovation ecosystems by cultivating relations with other companies and institutions.

This research, like all studies, has some limitations that could be discussed in future research studies. The first limitation is the limited number of DIHs included in the sample, as well as their geographical distribution, which is relatively inhomogeneous. The study's second drawback is its narrow reach, since it only considers the viewpoint of DIHs. Further research should be undertaken to explore SMEs perceptions of the services rendered in order to corroborate and broaden the results presented here, such as considering a broader scale of DIHs that vary by structure, industry, and technology, as well as the perspectives of partners (e.g. large firms and universities).

3 Annexes are provided below covering: Questionnaire for DIHs, Meeting Concept and CEE and WB Economic National Strategies.





ANNEX I –  
QUESTIONNAIRE  
RESPONSES AND LIST OF  
ORGANISATIONS

## IDENTIFICATION AS DIH

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
1	CEED KOSOVO*	Kosovo*	Yes	Do not know		Yes
2	ICK	Kosovo*	Yes	Yes	Innovation Centre Kosovo*	Yes
3	X Factor Accelerator	North Macedonia	No	No	No	Yes
4	ONEX	Bosnia and Herzegovina	Yes	Yes	ONEX	Yes
5	YES Foundation	North Macedonia	Yes	Yes	BioSense institute, Serbia	No
6	Venture UP	Kosovo*	No	Yes	Venture UP ( <a href="http://www.venture-up.org">www.venture-up.org</a> ) from Prishtina, Kosovo*	Yes
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	Serbia	Yes	Yes	Belgrade robotics hub - robotics (manufacturing, healthcare)	Yes
8	Networks INT	Bosnia and Herzegovina	No	Do not know		Yes
9	Science Technology Park Belgrade	Serbia	Yes	Do not know		No
10	Business incubator Novi Sad	Serbia	Yes	Do not know		Yes
11	ICT Hub	Serbia	Yes	Yes	JS Guru Bosnia and Herzegovina, Digitalizuj.me Montenegro, Mtel Digitalna fabrika Montenegro, Launchlabs Sofia, Digital IQ Croatia	Yes

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

Regional Cooperation Council

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
12	Coolab Tirana	Albania	Yes	Yes	ICT HUB Kosovo*, ICT HUB Belgrade, Startup Macedonia	Yes
13	Laboratorija ideja - iDEAlab	Serbia	Yes	Yes	Science Technological Parks and Creative Hubs	Yes
14	Oficina	Albania	Yes	Yes	Oficina (AL) , ICK (KS) Seavus (NM)	Yes
15	Daisy	Albania	Yes	No		No
16	EPOKA University	Albania	Yes	Yes	Protik Innovation Centre	No
17	In Centar Hub	Serbia	No	No		No
18	HUB387	Bosnia and Herzegovina	Yes	Yes	HUB387, Intera, Mozaik, Technopolis (CG), etc.	Yes
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	Bosnia and Herzegovina	Yes	Do not know		Yes
20	Serbian Venture Network	Serbia	Yes	Yes	ImpactHub, SEVEN, ICT Hub, Technology Park all in Serbia	Yes
21	Kosovo* ICT Association/STIKK	Kosovo*	Do not know	Yes	STIKK, ICK	Yes
22	Institute BioSense	Serbia	Yes	Yes	Startit, ICT Hub, Crobohub	Yes
23	SEEUTechPark	North Macedonia	Yes	Yes	SEEUTechPark , InnoFEIT, ICTHub, Technopolis, ICK	Yes
24	Catholic University 'Our Lady of Good Counsel'	Albania	Yes	Do not know		No

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
25	Innovation Centre Banja Luka	Bosnia and Herzegovina	Yes	No		No
26	Business Innovation Centre LLC	Serbia	Yes	Do not know		No
27	Science Technology Park Čačak	Serbia	Yes	Yes	Science Technology Park Čačak, Belgrade robotics hub...	Yes
28	Innovation and Entrepreneurship Centre Tehnopolis	Montenegro	Yes	Do not know		No
29	Digitalizuj.Me	Montenegro	Yes	Yes	ICT Hub, Hub387, Nova Iskra, Startit, ICK, IPC Tehnopolis, ...	Yes
30	Cloud68.co OÜ	Albania	No	Yes	Open Labs Albania, Coolab, Innospace Tirana	Yes
31	Polis University	Albania	Yes	Yes	Protik Oficina	Yes
32	DM Consulting Services / duapune.com	Albania	Yes	Yes		Yes
33	Metropolitan Incubator	Albania	No	No		Yes
34	Science Technology Park Niš	Serbia	Yes	Yes		Yes
35	INNVEST	Albania	Yes	Yes	INNVEST is also providing DIH to SMEs and corporate through Innovation Management Academy through cooperation with EU for Innovation and also ICT hub Serbia.	Yes

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
36	KG CODE	Serbia	Yes	Yes	<p>KG CODE: <a href="https://kgcode.rs/">https://kgcode.rs/</a> We are unique in Central Serbia for IT and Creative Industries, as a place for gathering and supporting people from this field. We hope that this Initiative will provide support, not only to us but to the rest of the Community on a regional level. Apart from our DIH - KG CODE we can list the following DIHs</p> <p>1. ICT HUB, Belgrade - Among several Belgrade's DIHs we recognise ICT HUB as the most important one because their services are used by business (from small to big companies) and international donor community. Field of operations: digital transformation of traditional companies, support for freelancers, conferences.</p> <p>2. Nova Iskra (Rent 24) - The most creative DIH established by designers and recognised by creative individuals and companies as a place for work and networking.</p> <p>3. Smart Office - 1st co-working office in Serbia. Smart Office is located in the heart of Belgrade's old town. It is a place for foreign and domestic co-workers and digital nomads with</p>	Yes

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
					<p>the true spirit of the co-working way of life. They are hosts of the first co-working conference in this part of Europe: CCCSEE in which KG CODE participated.</p> <p>4. DELI Creative space - This is one of the DIHs which is located out of Belgrade, and I think it has to be taken into consideration when mapping. Its main services, including providing co-working space for digital nomads, organising meetups and community projects.</p> <p>Together with Smart Office, Nova Iskra, DELI, and a few other DIHs, KG CODE participated in the Serbian Co-working/HUBs delegation in the international conference Co-working Europe 2019 in Amsterdam, NI.</p>	
37	Yunus Social Business Balkans	Albania	Yes	Do not know		No
38	Nordeus Hub	Serbia	Yes	Yes	Nova Iskra, Impact Hub, ICT Hub, Startit	Yes
39	Mtel digitalna fabrika	Montenegro	Yes	Yes	The list of DIHs is provided on the S3 platform ( <a href="https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool">https://s3platform.jrc.ec.europa.eu/digital-innovation-hubs-tool</a> ) can be useful	Yes

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
40	Seavus Education and Development Centre Project: Seavus Accelerator	North Macedonia	Yes	Do not know		Yes
41	Jakova Innovation Centre	Kosovo*	Yes	Yes	ICK, Venture UP, JIC, Innovation Hub Istog	Yes
42	Business Accelerator UKIM	North Macedonia	Yes	Yes	Business Accelerator UKIIM, N. Macedonia Centre for Technology Transfer and Innovation - INNOFEIT, N. Macedonia	Yes
43	Deli Space for Creative Activity	Serbia	Yes	Do not know		Yes
44	MACES - Macedonian Cluster for Export of Software and ICT Services	North Macedonia	Yes	No		No
45	Institute Mihajlo Pupin	Serbia	Yes	Yes	Our Institute (Institute Mihajlo Pupin) provides almost all services from the definition of DIH. It provides companies and public administration with the requisite technological expertise, equipment and tools (software and hardware) to digitalise their products and/or businesses, and undertakes technology transfer, and provides consulting and vocational training services.	Yes

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
46	MASIT - ICT Chamber of Commerce	North Macedonia	Yes	Yes	MASIT - ICT Chamber of Commerce - operates as ICT industry representative of the ICT companies of North Macedonia	Yes
47	UNDP - United Nations Development Programme	Bosnia and Herzegovina	Yes	Yes	Centar za digitalnu transformaciju Privredne komore RS (RS Chamber of Commerce Digital Transformation Centre)	No
48	BIT Centre	Bosnia and Herzegovina	Yes	Yes	BIT Centre	Yes
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	North Macedonia	Yes	Yes	CIRKO - Skopje, SEEU Tech Park, Innofeit - Skopje, ...	No
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education	North Macedonia	Yes	Yes	CIRKO, INNOFEIT (at Electrotechnical Faculty), CIPOZ (at Agriculture Faculty), Tech Park at SEE University	Yes
51	Razlivalište	Serbia	Yes	Do not know		No
52	Albania Sustainable Development Organisation	Albania	Yes	Yes	BiblioTech	Yes

#	Name of your organisation	Please indicate in which Western Balkans economy is your organisation located	Have you heard before about the term DIH?	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans?	If the response to above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future?
53	Health Tech Lab	Serbia	Yes	Yes	ICT Hub	Yes
54	ICTSmedia (ICT-Slab)	Albania	No	Do not know		Yes

## TYPE OF ORGANISATION AND SIZE

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
1	CEED KOSOVO*	Organisation that works in growing companies	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
2	ICK	More than one option (Incubator, Co-working, Accelerator)	Single entity	Non-profit organisation	Small entity (10 to 50 full-time employees)				
3	X Factor Accelerator	Accelerator	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
4	ONEX		Consortium of multiple entities			More than 10	Formal - a consortium agreement defines a coordinator and roles of other entities	Non-profit organisation	Small entity (10 to 50 full-time employees)
5	YES Foundation	Incubator	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
6	Venture UP	Incubator	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics		Consortium of multiple entities			6 to 10	Informal - one entity/person is unofficially defined as a coordinator	University	Large entity (250 or more full-time employees)
8	Networks INT	Co-working space/hub	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
9	Science Technology Park Belgrade	Science/Technology Park	Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				
10	Business incubator Novi Sad	Incubator	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				
11	ICT Hub		Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				
12	Coolab Tirana	Co-working space/hub	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				
13	Laboratorija ideja - iDEAlab	Incubator	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
14	Oficina		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
15	Daisy	Co-working space/hub	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				

Regional Cooperation Council

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
16	EPOKA University	Research centre	Single entity	University	Medium entity (50 to 250 full-time employees)				
17	In Centar Hub	Co-working space/hub/start-up accelerator/digital service provider	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				
18	HUB387	We are co-working space/education centre, but also striving to be DiH	Consortium of multiple entities			3	Informal - one entity/person is unofficially defined as a coordinator	Non-profit organisation	Micro entity (less than 10 full-time employees)
19	Foundation for Innovation and Technology Development (INTERA Technology Park)		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
20	Serbian Venture Network		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

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21	Kosovo* ICT Association/ STIKK		Consortium of multiple entities			2	Informal - one entity/person is unofficially defined as a coordinator	Non-profit organisation	Small entity (10 to 50 full-time employees)
22	Institute Bio-Sense		Single entity	Scientific/Research Centre	Medium entity (50 to 250 full-time employees)				
23	SEEUTechPark		Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				
24	Catholic University 'Our Lady of Good Counsel'	Incubator	Single entity	University	Large entity (250 or more full-time employees)				
25	Innovation Centre Banja Luka	We are a combination of incubator/ co-working start-up centre and training centre	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				

Regional Cooperation Council

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
26	Business Innovation Centre LLC	Incubator	Consortium of multiple entities			5	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Limited liability company	Micro entity (less than 10 full-time employees)
27	Science Technology Park Čačak		Single entity	Public institution	Micro entity (less than 10 full-time employees)				
28	Innovation and Entrepreneurship Centre Tehnopolis	Incubator	Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				
29	Digitalizuj.Me		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
30	Cloud68.co OÜ		Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

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31	Polis University	Accelerator	Single entity	University	Medium entity (50 to 250 full-time employees)				
32	DM Consulting Services / dua-pune.com		Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				
33	Metropolitan Incubator		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
34	Science Technology Park Niš	Science technology park	Consortium of multiple entities			3	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Limited liability company	Small entity (10 to 50 full-time employees)
35	INNVEST	Angel Investors Network	Single entity	SME	Micro entity (less than 10 full-time employees)				

Regional Cooperation Council

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
36	KG CODE		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
37	Yunus Social Business Balkans	Accelerator	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
38	Nordeus Hub	Co-working space/hub	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
39	Mtel digitalna fabrika		Single entity	Part of LLC, MTEL	Large entity (250 or more full-time employees)				
40	Seavus Education and Development Centre Project: Seavus Accelerator	Accelerator	Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
41	Jakova Innovation Centre		Consortium of multiple entities			3	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Non-profit organisation	Micro entity (less than 10 full-time employees)
42	Business Accelerator UKIM	Accelerator	Consortium of multiple entities			4	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Limited liability company	Micro entity (less than 10 full-time employees)
43	Deli Space for Creative Activity		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
44	MACES - Macedonian Cluster for Export of Software and ICT Services	int'l business development	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
45	Institute Mihajlo Pupin		Consortium of multiple entities			5	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Scientific/research Centre	Large entity (250 or more full-time employees)
46	MASIT - ICT Chamber of Commerce		Consortium of multiple entities			More than 10	Formal legal entity - officially registered entity with a clear governance structure with separate departments for all areas of responsibility	Chamber of Commerce - registered based on the Law on Chambers of Commerce of N. Macedonia	Micro entity (less than 10 full-time employees)

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
47	UNDP - United Nations Development Programme	Development agency	Single entity	International development agency	Medium entity (50 to 250 full-time employees)				
48	BIT Centre	In BIT Centre is Incubator, HUB, Co-working, R&D	Single entity	Limited liability company	Micro entity (less than 10 full-time employees)				
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	Project unit within the Faculty of Mechanical Engineering that supports students to create their start-up companies	Single entity	We are project unit within the Faculty/University - data that will be provided below is on the Faculty level	Medium entity (50 to 250 full-time employees)				
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)		Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				

Regional Cooperation Council

#	Name of your organisation	If the response to above question is "No", please indicate what type of organisation do you identify as	Please indicate how many different legal entities form your organisation	Please select the legal form of your organisation	Based on regulations prevalent in your economy, please indicate how your entity is classified	Please indicate how many entities constitute your consortium	Please indicate what is the legal form of your consortium	Please select the legal form of coordinator organisation of your consortium	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity
51	Razlivalište	Incubator	Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
52	Albania Sustainable Development Organisation		Single entity	Non-profit organisation	Do not know				
53	Health Tech Lab		Single entity	Non-profit organisation	Micro entity (less than 10 full-time employees)				
54	ICTSmedia (ICTSlab)		Single entity	Limited liability company	Small entity (10 to 50 full-time employees)				

## DIRECT STAFFING, PRESENCE AND FUNDING SOURCES

#	Name of your organisation	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services	Please indicate what is the type of presence your organisation has	Did you have support from any external source in establishing your DIH?	Please indicate the type of external source that helped in establishing your DIH	If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"
1	CEED KOSOVO*	Below 2	Both physical and virtual/online presence	No		
2	ICK	10 to 20	Both physical and virtual/online presence	Yes	Bilateral support (e.g. foreign embassy)	SIDA, GIZ, EU, Norway, etc.
3	X Factor Accelerator	2 to 5	Both physical and virtual/online presence	Yes	International (e.g. OECD, World Bank etc.)	Innovation and Technological Development Fund and World Bank
4	ONEX	10 to 20	Both physical and virtual/online presence	Yes	International (e.g. OECD, World Bank etc.)	European Commission
5	YES Foundation	2 to 5	Both physical and virtual/online presence			
6	Venture UP	5 to 10	Both physical and virtual/online presence	Yes	EU accession funds	NA
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	20 to 50	Both physical and virtual/online presence	Yes	Horizon 2020 programme	1. Horizon 2020, I4MS initiative, project - Feasibility Study for Serbian Manufacturing Innovation Hub; 2. Horizon 2020 project - Digital Innovation Hubs in Health Care Robotics (DIH-HERO, Grant Agreement no. 825003); 3 - A Pan European Network of Robotics DIHs for Agile Production (DIH2, Grant Agreement no. 824964)
8	Networks INT	2 to 5	Both physical and virtual/online presence	No		

#	Name of your organisation	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services	Please indicate what is the type of presence your organisation has	Did you have support from any external source in establishing your DIH?	Please indicate the type of external source that helped in establishing your DIH	If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"
9	Science Technology Park Belgrade	10 to 20	Both physical and virtual/online presence	Yes	Bilateral support (e.g. foreign embassy)	Support from Government of Switzerland (through its agency)
10	Business incubator Novi Sad	2 to 5	Physical presence only	No		
11	ICT Hub	10 to 20	Both physical and virtual/online presence	Yes	International (e.g. OECD, World Bank etc.)	USAID
12	Coolab Tirana	2 to 5	Both physical and virtual/online presence	Yes	Private Investment	
13	Laboratorija ideja - iDEAlab	Below 2	Both physical and virtual/online presence	Yes	EU accession funds	Tempus programme European Commission
14	Oficina	2 to 5	Both physical and virtual/online presence	Yes	Local	Union Group
15	Daisy	2 to 5	Physical presence only	No		
16	EPOKA University	2 to 5	Both physical and virtual/online presence			
17	In Centar Hub	2 to 5	Both physical and virtual/online presence	No		
18	HUB387	2 to 5	Both physical and virtual/online presence	No		
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	5 to 10	Both physical and virtual/online presence	Yes	Bilateral support (e.g. foreign embassy)	Norwegian Ministry of Foreign Affairs
20	Serbian Venture Network	10 to 20	Both physical and virtual/online presence	Yes	Local support, foreign embassy support, sponsors	

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services	Please indicate what is the type of presence your organisation has	Did you have support from any external source in establishing your DIH?	Please indicate the type of external source that helped in establishing your DIH	If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"
21	Kosovo* ICT Association/STIKK	10 to 20	Both physical and virtual/online presence	No		
22	Institute BioSense	5 to 10	Both physical and virtual/online presence	Yes	Horizon 2020 programme	
23	SEEU TechPark	5 to 10	Both physical and virtual/online presence	Yes	SEE University	SEEU - South East European University
24	Catholic University 'Our Lady of Good Counsel'	Below 2	Both physical and virtual/online presence	No		
25	Innovation Centre Banja Luka	Below 2	Both physical and virtual/online presence	No		
26	Business Innovation Centre LLC	Below 2	Both physical and virtual/online presence			
27	Science Technology Park Čačak	Below 2	Both physical and virtual/online presence	Yes	Local	
28	Innovation and Entrepreneurship Centre Tehnopolis	10 to 20	Both physical and virtual/online presence			
29		5 to 10	Both physical and virtual/online presence	No		
30	Cloud68.co OÜ	5 to 10	Virtual/online presence only	No		
31	Polis University	2 to 5	Both physical and virtual/online presence	Yes	International (e.g. OECD, World Bank etc.)	EU for Innovation
32	DM Consulting Services / duapune.com	5 to 10	Both physical and virtual/online presence	No		
33	Metropolitan Incubator	2 to 5	Both physical and virtual/online presence	Yes	EU accession funds	

Regional Cooperation Council

#	Name of your organisation	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services	Please indicate what is the type of presence your organisation has	Did you have support from any external source in establishing your DIH?	Please indicate the type of external source that helped in establishing your DIH	If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"
34	Science Technology Park Niš	2 to 5	Both physical and virtual/online presence	Yes		
35	INNVEST	2 to 5	Both physical and virtual/online presence	Yes	Private enterprises membership and also international funds based on specific projects and consultancy services.	EU for Innovation, EBRD, GIZ, etc.
36	KG CODE	2 to 5	Both physical and virtual/online presence	Yes		Ministry of Trade, Tourism and Telecommunications, along with GIZ.
37	Yunus Social Business Balkans	2 to 5	Both physical and virtual/online presence			
38	Nordeus Hub	2 to 5	Both physical and virtual/online presence	No		
39	Mtel digitalna fabrika	10 to 20	Both physical and virtual/online presence	No		
40	Seavus Education and Development Centre Project: Seavus Accelerator	5 to 10	Both physical and virtual/online presence	Yes	FITR (World Bank)	FITR (World Bank)
41	Jakova Innovation Centre	2 to 5	Both physical and virtual/online presence	Yes	EU accession funds	n/a
42	Business Accelerator UKIM	2 to 5	Both physical and virtual/online presence	Yes	Local	Fund for Innovation and Technology Development - North Macedonia
43	Deli Space for Creative Activity	2 to 5	Both physical and virtual/online presence	No		
44	MACES - Macedonian Cluster for Export of Software and ICT Services	Below 2	Virtual/online presence only	No		

#	Name of your organisation	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services	Please indicate what is the type of presence your organisation has	Did you have support from any external source in establishing your DIH?	Please indicate the type of external source that helped in establishing your DIH	If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"
45	Institute Mihajlo Pupin	More than 50	Both physical and virtual/online presence	No		
46	MASIT - ICT Chamber of Commerce	5 to 10	Both physical and virtual/online presence	Yes	Multiple EU funded projects; bilateral support, programmes mainly from USA (USAID) and Germany (GIZ); membership fees.	EU funded projects: Idealist 2020 (Horizon2020 Programme); GIVE Project (financed under COSME Programme); several donor support projects by USAID, GIZ and British Embassy in North Macedonia
47	UNDP - United Nations Development Programme	10 to 20	Both physical and virtual/online presence	Yes	UNDP	UNDP
48	BIT Centre	2 to 5	Both physical and virtual/online presence	Yes	Norwegian Embassy	
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	Below 2	Both physical and virtual/online presence	Yes	BSC started with direct support of Austrian Development Agency in 2006	Austrian Development Agency
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	10 to 20	Virtual/online presence only	Yes	GTZ - German Technical Support (2003)	GTZ, now GIZ
51	Razlivalište	Below 2	Both physical and virtual/online presence			
52	Albania Sustainable Development Organisation	5 to 10	Both physical and virtual/online presence	No		
53	Health Tech Lab	2 to 5	Virtual/online presence only	No		
54	ICTSmedia (ICTSlab)	10 to 20	Both physical and virtual/online presence	Yes	EU funds + Local corporates	Slovak Aid

## SERVICES AND VERTICALS OFFERED

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
1	CEED KOSOVO*	Contract research, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Strategy development, Business plan development	none of the above
2	ICK	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Collaborative research, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Customised Low-energy Computing powering, High Performance Computing, Cyber-physical and Embedded Systems, Blockchain, Circular economy solutions, Agritech solutions, Digital solutions for governments, Artificial Intelligence, Simulations, Virtual Reality, Augmented Reality
3	X Factor Accelerator	Ecosystem learning, community building, Representation and promotion, Access to finance, Incubator/accelerator support	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Additive Manufacturing, High Performance Computing, Cyber-physical and Embedded Systems, Blockchain, Circular economy solutions, Agritech solutions, Artificial Intelligence, Simulations, Virtual Reality
4	ONEX	Provision of technical infrastructure (e.g. 3D printers, VR software), Testing and Validation, Collaborative research, Contract research, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Market intelligence	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Additive Manufacturing, Blockchain, Digital solutions for governments, Virtual Reality
5	YES Foundation	Ecosystem learning, community building, Representation and promotion, Business plan development, Incubator/accelerator support	Circular economy solutions
6	Venture UP	Ecosystem learning, community building, Access to finance, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment	Circular economy solutions, Agritech solutions, Digital solutions for governments, Virtual Reality, Augmented Reality

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Collaborative research, Contract research, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Robotics, Cyber-physical and Embedded Systems
8	Networks INT	Provision of technical infrastructure (e.g. 3D printers, VR software), Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Incubator/accelerator support, Digital maturity assessment, Market intelligence	Internet of Things, High Performance Computing, Circular economy solutions
9	Science Technology Park Belgrade	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	We provide business support services in all verticals. We provide technical infrastructure for users that need 3D printers, 3D scanners, electronic measurement equipment, CNC machines, lasers, etc.
10	Business incubator Novi Sad	Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to marketing channels, Incubator/accelerator support	Internet of Things, Blockchain, Simulations, Virtual Reality, Augmented Reality
11	ICT Hub	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Collaborative research, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Access to finance, Access to marketing channels, Strategy development, Business plan development, Digital maturity assessment	Consulting services for corporations and SMEs

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
12	Coolab Tirana	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Pre-market series production, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Additive Manufacturing, Blockchain, Circular economy solutions, Artificial Intelligence, Virtual Reality, Augmented Reality
13	Laboratorija ideja - iDE-Alab	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Collaborative research, Business plan development, Incubator/accelerator support	Internet of Things, Additive Manufacturing, Agritech solutions, Artificial Intelligence, Simulations, Virtual Reality, Augmented Reality
14	Oficina	Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Market intelligence	Internet of Things, Robotics, Blockchain, Agritech solutions
15	Daisy	Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building	Open to programmers and other digital professionals
16	EPOKA University	Ecosystem learning, community building, Strategy development, Business plan development	Internet of Things, Robotics, Simulations, Virtual Reality
17	In Centar Hub	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Pre-market series production, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Robotics, Blockchain, Agritech solutions
18	HUB387	Access to finance, Incubator/accelerator support	..

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Contract research, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Additive Manufacturing, CNC machining, injection moulding parts design
20	Serbian Venture Network	Concept validation and Prototyping, Collaborative research, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Digital maturity assessment, Market intelligence	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Blockchain, Circular economy solutions, Agritech solutions, Artificial Intelligence
21	Kosovo* ICT Association/ STIKK	Provision of technical infrastructure (e.g. 3D printers, VR software), Collaborative research, Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Market intelligence	Internet of Things, Cyber-physical and Embedded Systems, Blockchain, Agritech solutions, Digital solutions for governments, Artificial Intelligence, Virtual Reality, Augmented Reality
22	Institute BioSense	Testing and Validation, Collaborative research, Ecosystem learning, community building, Representation and promotion, Access to finance, Incubator/accelerator support	Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Agritech solutions
23	SEEUTechPark	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Contract research, Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Cyber-physical and Embedded Systems, Blockchain, Circular economy solutions, Digital solutions for governments, Artificial Intelligence, Virtual Reality
24	Catholic University 'Our Lady of Good Counsel'	Collaborative research, Contract research, Provision of commercial infrastructure (e.g. co-working space), Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Circular economy solutions, Medical sciences

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
25	Innovation Centre Banja Luka	Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Digital solutions for governments, Virtual Reality
26	Business Innovation Centre LLC	Representation and promotion, Access to finance, Business plan development, Incubator/accelerator support	Internet of Things
27	Science Technology Park Čačak	Provision of technical infrastructure (e.g. 3D printers, VR software), Collaborative research, Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Additive Manufacturing, Blockchain, Digital solutions for governments, Artificial Intelligence, Virtual Reality
28	Innovation and Entrepreneurship Centre Tehnopolis	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Testing and Validation, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Flexible and wearable electronics/Organic Large Area Electronics, Agritech solutions, Artificial Intelligence, Virtual Reality, Augmented Reality
29	Digitalizuj.Me	Concept validation and Prototyping, Testing and Validation, Collaborative research, Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment	Circular economy solutions, Agritech solutions, Digital solutions for governments, Artificial Intelligence, SaaS
30	Cloud68.co OÜ	Technical support to scale-up	Open Source Digital Infrastructure (cloud)
31	Polis University	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Collaborative research, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Strategy development, Business plan development, Incubator/accelerator support	Additive Manufacturing

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
32	DM Consulting Services / duapune.com	Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment, Market intelligence	Consulting, Software Development (HR Solutions, Fintech)
33	Metropolitan Incubator	Incubator/accelerator support	Flexible and wearable electronics/Organic Large Area Electronics, Agritech solutions, Digital solutions for governments, Virtual Reality
34	Science Technology Park Niš	Provision of technical infrastructure (e.g. 3D printers, VR software), Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Incubator/accelerator support	Internet of Things, High Performance Computing, Cyber-physical and Embedded Systems, Blockchain, Artificial Intelligence, Virtual Reality, Augmented Reality
35	INNVEST	Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Circular economy solutions, Agritech solutions, Simulations
36	KG CODE	Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to marketing channels, Strategy development, Business plan development, Market intelligence	Circular economy solutions, Digital solutions for governments
37	Yunus Social Business Balkans	Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Circular economy solutions, Agritech solutions
38	Nordeus Hub	Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Access to finance, Business plan development, Incubator/accelerator support, Market intelligence	Gaming
39	Mtel digitalna fabrika	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Testing and Validation, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Access to finance, Access to marketing channels, Incubator/accelerator support	Internet of Things, Robotics, Digital solutions for governments

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
40	Seavus Education and Development Centre Project: Seavus Accelerator	Testing and Validation, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Blockchain, Circular economy solutions, Digital solutions for governments, Artificial Intelligence
41	Jakova Innovation Centre	Provision of technical infrastructure (e.g. 3D printers, VR software), Concept validation and Prototyping, Technical support to scale-up, Ecosystem learning, community building, Incubator/accelerator support, Market intelligence	Internet of Things, Circular economy solutions, Agritech solutions, Artificial Intelligence
42	Business Accelerator UKIM	Concept validation and Prototyping, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment, Market intelligence	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, High Performance Computing, Cyber-physical and Embedded Systems, Blockchain, Agritech solutions, Digital solutions for governments, Artificial Intelligence, Simulations, Virtual Reality, Augmented Reality
43	Deli Space for Creative Activity	Provision of technical infrastructure (e.g. 3D printers, VR software), Collaborative research, Contract research, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Business plan development	Circular economy solutions, Digital solutions for governments
44	MACES - Macedonian Cluster for Export of Software and ICT Services	Collaborative research, Representation and promotion, Access to marketing channels, Market intelligence	Internet of Things, Blockchain, Agritech solutions, Digital solutions for governments
45	Institute Mihajlo Pupin	Concept validation and Prototyping, Testing and Validation, Collaborative research, Contract research, Technical support to scale-up, Pre-market series production	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Customised Low-energy Computing powering, Cyber-physical and Embedded Systems, Digital solutions for governments, Artificial Intelligence, Simulations
46	MASIT - ICT Chamber of Commerce	Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Market intelligence	We do not provide technology-based support, only technical and administrative support for companies in terms of trainings, advocacy and lobbying, networking and events, export promotion activities, market analysis, etc.

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
47	UNDP - United Nations Development Programme	Provision of technical infrastructure (e.g. 3D printers, VR software), Collaborative research, Technical support to scale-up, Ecosystem learning, community building, Access to finance, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment, Market intelligence	Internet of Things, Additive Manufacturing, Circular economy solutions, Agritech solutions, Digital solutions for governments, Artificial Intelligence, Virtual Reality, Augmented Reality
48	BIT Centre	Provision of technical infrastructure (e.g. 3D printers, VR software), Collaborative research, Contract research, Technical support to scale-up, Pre-market series production, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Internet of Things, Robotics, Customised Low-energy Computing powering, High Performance Computing, Cyber-physical and Embedded Systems
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	Technical support to scale-up, Ecosystem learning, community building, Strategy development, Business plan development	Basic start-up support
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	Provision of technical infrastructure (e.g. 3D printers, VR software), Testing and Validation, Collaborative research, Contract research, Ecosystem learning, community building, Representation and promotion, Strategy development, Digital maturity assessment	Robotics, Additive Manufacturing, Circular economy solutions, Simulations, Virtual Reality, Augmented Reality, Inspections, Accredited laboratory, etc.
51	Razlivalište	Concept validation and Prototyping, Testing and Validation, Collaborative research, Pre-market series production, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support	Social entrepreneurship
52	Albania Sustainable Development Organisation	Collaborative research, Provision of commercial infrastructure (e.g. co-working space), Ecosystem learning, community building, Representation and promotion, Incubator/accelerator support	Internet of Things, Robotics, High Performance Computing

#	Name of your organisation	Please check boxes that contain services you offer. Multiple answers possible	Please check boxes next to the verticals for which you provide your services. Multiple answers possible
53	Health Tech Lab	Concept validation and Prototyping, Collaborative research, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Market intelligence	Internet of Things, Flexible and wearable electronics/Organic Large Area Electronics, Robotics, Additive Manufacturing, Blockchain, Artificial Intelligence, Virtual Reality, Augmented Reality, Health related services
54	ICTSmedia (ICTSlab)	Concept validation and Prototyping, Testing and Validation, Technical support to scale-up, Ecosystem learning, community building, Representation and promotion, Access to finance, Access to marketing channels, Strategy development, Business plan development, Incubator/accelerator support, Digital maturity assessment	Blockchain, Circular economy solutions, Digital solutions for governments, Artificial Intelligence, Virtual Reality, Augmented Reality

## REVENUE STRUCTURE

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Paid membership]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Fee-based provision of services]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Advertisement]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Sponsorship]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - project based]
1	CEED KOSOVO*		25% to 50%			25% to 50%
2	ICK		Less than 25%		Less than 25%	Less than 25%
3	X Factor Accelerator	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
4	ONEX	Less than 25%	Less than 25%	Less than 25%	Less than 25%	Less than 25%
5	YES Foundation	Less than 25%	Less than 25%	Not applicable	Not applicable	Less than 25%
6	Venture UP					75% to 100%

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Paid membership]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Fee-based provision of services]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Advertisement]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Sponsorship]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - project based]
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	Not applicable			Less than 25%	
8	Networks INT	Less than 25%	75% to 100%		50% to 75%	
9	Science Technology Park Belgrade	50% to 75%	Less than 25%	Less than 25%	Less than 25%	Less than 25%
10	Business incubator Novi Sad	Less than 25%	Less than 25%	Not applicable	Not applicable	Less than 25%
11	ICT Hub	Less than 25%	25% to 50%			25% to 50%
12	Coolab Tirana	25% to 50%	25% to 50%	Not applicable	Less than 25%	Less than 25%
13	Laboratorija ideja - iDEAlab	Not applicable	Not applicable	Not applicable	Less than 25%	Less than 25%
14	Oficina	Not applicable	Less than 25%	Less than 25%	25% to 50%	Not applicable
15	Daisy	25% to 50%			25% to 50%	
16	EPOKA University	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
17	In Centar Hub					
18	HUB387	25% to 50%	25% to 50%	Not applicable	Not applicable	Not applicable

Regional Cooperation Council

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Paid membership]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Fee-based provision of services]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Advertisement]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Sponsorship]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - project based]
19	Foundation for Innovation and Technology Development (INTERA Technology Park)		25% to 50%			Less than 25%
20	Serbian Venture Network	Not applicable	Not applicable	Not applicable	25% to 50%	25% to 50%
21	Kosovo* ICT Association/STIKK	Less than 25%	Less than 25%	Less than 25%	Less than 25%	25% to 50%
22	Institute BioSense	Not applicable	Not applicable	Not applicable	Not applicable	25% to 50%
23	SEEUtechPark	25% to 50%	25% to 50%			
24	Catholic University 'Our Lady of Good Counsel'	Not applicable	25% to 50%	Not applicable	Not applicable	25% to 50%
25	Innovation Centre Banja Luka	Not applicable	Less than 25%	Not applicable	Less than 25%	Less than 25%
26	Business Innovation Centre LLC		25% to 50%			25% to 50%
27	Science Technology Park Čačak	50% to 75%	Less than 25%	Less than 25%	Less than 25%	25% to 50%
28	Innovation and Entrepreneurship Centre Tehnopolis	Not applicable	Less than 25%	Not applicable	Less than 25%	Less than 25%
29	Digitalizuj.Me	Not applicable	Less than 25%	Not applicable	Not applicable	Less than 25%

MAPPING OF DIGITAL  
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and identification of needs within Western Balkans  
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#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Paid membership]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Fee-based provision of services]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Advertisement]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Sponsorship]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - project based]
30	Cloud68.co OÜ		75% to 100%			
31	Polis University					
32	DM Consulting Services / dupune.com	Not applicable	50% to 75%	Less than 25%	Not applicable	Less than 25%
33	Metropolitan Incubator	Less than 25%	Less than 25%	25% to 50%	75% to 100%	50% to 75%
34	Science Technology Park Niš					
35	INNVEST	Less than 25%	75% to 100%	Not applicable	50% to 75%	25% to 50%
36	KG CODE	Not applicable	25% to 50%	Not applicable	Not applicable	25% to 50%
37	Yunus Social Business Balkans	Not applicable	Less than 25%	Not applicable	Not applicable	Not applicable
38	Nordeus Hub					
39	Mtel digitalna fabrika	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
40	Seavus Education and Development Centre Project: Seavus Accelerator	Not applicable	Not applicable	Not applicable	Not applicable	25% to 50%

Regional Cooperation Council

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Paid membership]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Fee-based provision of services]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Advertisement]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Sponsorship]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - project based]
41	Jakova Innovation Centre	Less than 25%	Less than 25%	Less than 25%	Less than 25%	25% to 50%
42	Business Accelerator UKIM	Not applicable	Less than 25%			75% to 100%
43	Deli Space for Creative Activity	25% to 50%	25% to 50%		Less than 25%	25% to 50%
44	MACES - Macedonian Cluster for Export of Software and ICT Services	50% to 75%	Less than 25%	Not applicable	Less than 25%	Not applicable
45	Institute Mihajlo Pupin	Not applicable	25% to 50%	Not applicable	Not applicable	Less than 25%
46	MASIT - ICT Chamber of Commerce	Less than 25%	Less than 25%			
47	UNDP - United Nations Development Programme	Not applicable	Not applicable	Not applicable	Not applicable	Less than 25%
48	BIT Centre	Less than 25%	Less than 25%		Less than 25%	Less than 25%

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

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49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University					
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)		50% to 75%			Less than 25%
51	Razlivalište				75% to 100%	25% to 50%
52	Albania Sustainable Development Organisation				Less than 25%	50% to 75%
53	Health Tech Lab	Less than 25%	Less than 25%	Not applicable	75% to 100%	Not applicable
54	ICTSmedia (ICT-Slab)	Less than 25%		Less than 25%	Less than 25%	Less than 25%

Regional Cooperation Council

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - continuous support]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Public tenders]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Private investors]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [International/European funds (e.g. Horizon 2020)]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Crowd-funding]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Other]	If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?
1	CEED KOSOVO*						Less than 25%	services to private companies, local and regional presence
2	ICK				75% to 100%			
3	X Factor Accelerator	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable		
4	ONEX	Less than 25%	Less than 25%	Less than 25%	Less than 25%	Less than 25%	Not applicable	
5	YES Foundation	Not applicable	Less than 25%	Not applicable	50% to 75%	Not applicable		
6	Venture UP		Less than 25%					
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics		Less than 25%		50% to 75%	Not applicable	Less than 25%	
8	Networks INT			25% to 50%	50% to 75%	50% to 75%		
9	Science Technology Park Belgrade	Less than 25%	Less than 25%	Less than 25%	Less than 25%	Less than 25%		
10	Business incubator Novi Sad	Not applicable	Not applicable	Not applicable	50% to 75%	Not applicable	Not applicable	

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

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11	ICT Hub						25% to 50%	International Government donor grants - project based
12	Coolab Tirana	Less than 25%	Not applicable	25% to 50%	Less than 25%	Not applicable	50% to 75%	Community Space Caffe, Conference and events services, Corporate partnerships
13	Laboratorija ideja - iDEAlab	Not applicable	Not applicable	Not applicable	Less than 25%	Not applicable	Not applicable	
14	Oficina	Not applicable	Not applicable	Less than 25%	50% to 75%	Not applicable	50% to 75%	Local support organisations
15	Daisy			25% to 50%				
16	EPOKA University	Not applicable	Not applicable	Less than 25%	Less than 25%	Not applicable	75% to 100%	Student Tuition Fees
17	In Centar Hub							
18	HUB387	Not applicable	Not applicable	Not applicable	Less than 25%	Not applicable		

Regional Cooperation Council

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - continuous support]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Public tenders]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Private investors]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [International/European funds (e.g. Horizon 2020)]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Crowd-funding]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Other]	If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?
19	Foundation for Innovation and Technology Development (INTERA Technology Park)				25% to 50%			
20	Serbian Venture Network	Not applicable	Less than 25%	Less than 25%	Less than 25%	Not applicable	25% to 50%	Tickets revenue for our flagship project Belgrade Venture Forum
21	Kosovo* ICT Association/STIKK	25% to 50%			Less than 25%	Less than 25%		
22	Institute BioSense	25% to 50%	25% to 50%	Not applicable	50% to 75%	Not applicable	Not applicable	
23	SEEUTechPark	Less than 25%			Less than 25%			/
24	Catholic University 'Our Lady of Good Counsel'	Not applicable	Not applicable	Less than 25%	Not applicable	Not applicable	Not applicable	
25	Innovation Centre Banja Luka	25% to 50%	Less than 25%	Not applicable	Less than 25%	Not applicable		
26	Business Innovation centre LLC	50% to 75%						

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

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27	Science Technology Park Čačak	25% to 50%	25% to 50%	Less than 25%	Less than 25%	Less than 25%		
28	Innovation and Entrepreneurship Centre Tehnopolis	Less than 25%	Not applicable	Not applicable	75% to 100%	Not applicable		
29	Digitalizuj.Me	Not applicable	Not applicable	Not applicable	75% to 100%	Not applicable		
30	Cloud68.co OÜ							
31	Polis University							
32	DM Consulting Services / duapune.com	Not applicable	Not applicable	Less than 25%	Not applicable	Not applicable	Not applicable	
33	Metropolitan Incubator	50% to 75%	Less than 25%	75% to 100%	25% to 50%	Less than 25%	25% to 50%	
34	Science Technology Park Niš							
35	INNVEST	Not applicable	Not applicable	25% to 50%	Less than 25%	Not applicable	Not applicable	
36	KG CODE	Not applicable	Not applicable	Less than 25%	Not applicable	Not applicable		
37	Yunus Social Business Balkans	Not applicable	25% to 50%	Less than 25%	Not applicable			

Regional Cooperation Council

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - continuous support]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Public tenders]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Private investors]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [International/European funds (e.g. Horizon 2020)]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Crowdfunding]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Other]	If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?
38	Nordeus Hub						Not applicable	Private company
39	Mtel digitalna fabrika	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
40	Seavus Education and Development Centre Project: Seavus Accelerator	25% to 50%	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	
41	Jakova Innovation Centre	Less than 25%		Less than 25%	50% to 75%	Less than 25%		
42	Business Accelerator UKIM	Not applicable	Not applicable	Less than 25%	Less than 25%	Not applicable	Not applicable	
43	Deli Space for Creative Activity		Less than 25%			Less than 25%		
44	MACES - Macedonian Cluster for Export of Software and ICT Services	Not applicable	Not applicable	Not applicable	Less than 25%	Not applicable	Not applicable	
45	Institute Mihajlo Pupin	Not applicable	25% to 50%	Less than 25%	Less than 25%	Not applicable	Not applicable	

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - continuous support]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Public tenders]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Private investors]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [International/European funds (e.g. Horizon 2020)]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Crowd-funding]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Other]	If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?
46	MASIT - ICT Chamber of Commerce				25% to 50%		25% to 50%	bilateral programmes such as USAID, GIZ and British Embassy
47	UNDP - United Nations Development Programme	Not applicable	Not applicable	Not applicable	75% to 100%	Not applicable	Not applicable	
48	BIT Centre		25% to 50%	Less than 25%	50% to 75%	Less than 25%	50% to 75%	
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	50% to 75%			50% to 75%			
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)		25% to 50%		Less than 25%			

#	Name of your organisation	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [National Government grants/subsidies/schemes - continuous support]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Public tenders]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Private investors]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [International/European funds (e.g. Horizon 2020)]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Crowd-funding]	If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues [Other]	If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?
51	Razlivalište							
52	Albania Sustainable Development Organisation	Less than 25%						
53	Health Tech Lab	Not applicable	Less than 25%	Not applicable	Not applicable	Less than 25%		
54	ICTSmedia (ICT-Slab)							

## FEES, USERS AND ANNUAL REVENUE

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
1	CEED KOSOVO*	Different rates applied to members and external users, Same rates applied to domestic and foreign users	50 to 100	50k to 100k EUR
2	ICK	Different rates applied to members and external users	More than 100	More than 250k EUR
3	X Factor Accelerator	Shareholders	20 to 50	50k to 100k EUR

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
4	ONEX	Same rates applied to members and external users, Different rates applied to domestic and foreign users	50 to 100	20k to 50k EUR
5	YES Foundation	Different rates applied to members and external users	10 to 20	100k to 250k EUR
6	Venture UP	Different rates applied to members and external users, Different rates applied to domestic and foreign users	More than 100	50k to 100k EUR
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	Same rates applied to domestic and foreign users	Below 10	100k to 250k EUR
8	Networks INT	Same rates applied to members and external users, Different rates applied to domestic and foreign users	50 to 100	Below 5k EUR
9	Science Technology Park Belgrade	Same rates applied to domestic and foreign users	50 to 100	More than 250k EUR
10	Business incubator Novi Sad	Different rates applied to members and external users	10 to 20	50k to 100k EUR
11	ICT Hub	Same rates applied to domestic and foreign users	More than 100	More than 250k EUR
12	Coolab Tirana	Different rates applied to members and external users, Same rates applied to domestic and foreign users	More than 100	50k to 100k EUR
13	Laboratorija ideja - iDEAlab	No fees are paid	10 to 20	Below 5k EUR
14	Oficina	Different rates applied to domestic and foreign users	Below 10	5k to 20k EUR
15	Daisy	Different rates applied to members and external users	50 to 100	5k to 20k EUR
16	EPOKA University	Same rates applied to domestic and foreign users	More than 100	More than 250k EUR
17	In Centar Hub	Different rates applied to members and external users	50 to 100	50k to 100k EUR
18	HUB387	Same rates applied to members and external users, Same rates applied to domestic and foreign users	More than 100	100k to 250k EUR

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
19	Foundation for Innovation and Technology Development (IN-TERA Technology Park)	Different rates applied to members and external users	20 to 50	50k to 100k EUR
20	Serbian Venture Network	Same rates applied to members and external users, Same rates applied to domestic and foreign users	More than 100	50k to 100k EUR
21	Kosovo* ICT Association/ STIKK	Different rates applied to members and external users, Same rates applied to domestic and foreign users	More than 100	More than 250k EUR
22	Institute Bio-Sense	Same rates applied to members and external users	50 to 100	More than 250k EUR
23	SEEUtechPark	Different rates applied to members and external users, Same rates applied to domestic and foreign users	20 to 50	More than 250k EUR
24	Catholic University 'Our Lady of Good Counsel'	Same rates applied to members and external users, Same rates applied to domestic and foreign users	Below 10	Below 5k EUR
25	Innovation Centre Banja Luka	Different rates applied to members and external users	20 to 50	More than 250k EUR
26	Business Innovation Centre LLC	Different rates applied to members and external users, Same rates applied to domestic and foreign users	20 to 50	100k to 250k EUR
27	Science Technology Park Čačak	Different rates applied to members and external users	20 to 50	5k to 20k EUR
28	Innovation and Entrepreneurship Centre Tehnopolis	Different rates applied to members and external users	20 to 50	More than 250k EUR
29	Digitalizuj.Me	Same rates applied to members and external users, Different rates applied to domestic and foreign users	20 to 50	100k to 250k EUR
30	Cloud68.co OÜ	Same rates applied to domestic and foreign users	50 to 100	50k to 100k EUR

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
31	Polis University	Different rates applied to members and external users	10 to 20	Below 5k EUR
32	DM Consulting Services / duapune.com	Same rates applied to domestic and foreign users	More than 100	More than 250k EUR
33	Metropolitan Incubator	Same rates applied to members and external users	20 to 50	5k to 20k EUR
34	Science Technology Park Niš	Different rates applied to members and external users, Same rates applied to domestic and foreign users	10 to 20	100k to 250k EUR
35	INNVEST	Different rates applied to members and external users, Same rates applied to domestic and foreign users	50 to 100	5k to 20k EUR
36	KG CODE	Different rates applied to members and external users, Same rates applied to domestic and foreign users	20 to 50	Below 5k EUR
37	Yunus Social Business Balkans	Same rates applied to domestic and foreign users	20 to 50	100k to 250k EUR
38	Nordeus Hub	All our services are free of charge	More than 100	Below 5k EUR
39	Mtel digitalna fabrika	We offer free co-working space to all our users, and a free pre-acceleration programme to start-ups	20 to 50	Below 5k EUR
40	Seavus Education and Development Centre Project: Seavus Accelerator	We still don't charge for any of our accelerator related activities	20 to 50	More than 250k EUR
41	Jakova Innovation Centre	Different rates applied to members and external users	10 to 20	100k to 250k EUR
42	Business Accelerator UKIM	Different rates applied to members and external users	Below 10	50k to 100k EUR
43	Deli Space for Creative Activity	Different rates applied to members and external users, Same rates applied to domestic and foreign users	10 to 20	20k to 50k EUR

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
44	MACES - Macedonian Cluster for Export of Software and ICT Services	Different rates applied to members and external users, Different rates applied to domestic and foreign users	Below 10	Below 5k EUR
45	Institute Mihajlo Pupin	Same rates applied to domestic and foreign users	More than 100	More than 250k EUR
46	MASIT - ICT Chamber of Commerce	Different rates applied to members and external users, Same rates applied to domestic and foreign users	More than 100	100k to 250k EUR
47	UNDP - United Nations Development Programme	N/A	More than 100	More than 250k EUR
48	BIT Centre	Different rates applied to members and external users	20 to 50	More than 250k EUR
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	Same rates applied to members and external users	Below 10	Below 5k EUR
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	Same rates applied to members and external users, Same rates applied to domestic and foreign users	20 to 50	50k to 100k EUR
51	Razlivalište	Different rates applied to members and external users	More than 100	5k to 20k EUR

#	Name of your organisation	Please check boxes next to fees you charge users of your services. Multiple answers possible	Please indicate how many users of your services on average do you have annually	Please indicate your annual revenues
52	Albania Sustainable Development Organisation	Different rates applied to domestic and foreign users	50 to 100	50k to 100k EUR
53	Health Tech Lab	Different rates applied to members and external users, Same rates applied to domestic and foreign users	20 to 50	Below 5k EUR
54	ICTSmedia (ICT-Slab)	Different rates applied to domestic and foreign users	10 to 20	100k to 250k EUR

## BARRIERS TO DEVELOPMENT

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
1	CEED KOSOVO*	5 - significant	4 - somewhat significant	2 - somewhat insignificant	2 - somewhat insignificant	4 - somewhat significant
2	ICK	4 - somewhat significant	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant
3	X Factor Accelerator	4 - somewhat significant	2 - somewhat insignificant	4 - somewhat significant	4 - somewhat significant	3 - neither significant nor insignificant
4	ONEX	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant
5	YES Foundation	3 - neither significant nor insignificant	4 - somewhat significant	1 - insignificant	2 - somewhat insignificant	4 - somewhat significant
6	Venture UP	5 - significant	5 - significant		5 - significant	

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant
8	Networks INT	2 - somewhat insignificant	3 - neither significant nor insignificant	1 - insignificant	2 - somewhat insignificant	5 - significant
9	Science Technology Park Belgrade	5 - significant	4 - somewhat significant	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
10	Business incubator Novi Sad	1 - insignificant	3 - neither significant nor insignificant	1 - insignificant	3 - neither significant nor insignificant	2 - somewhat insignificant
11	ICT Hub	2 - somewhat insignificant	2 - somewhat insignificant	4 - somewhat significant	5 - significant	3 - neither significant nor insignificant
12	Coolab Tirana		3 - neither significant nor insignificant	1 - insignificant	5 - significant	5 - significant
13	Laboratorija ideja - iDEAlab	4 - somewhat significant	4 - somewhat significant	2 - somewhat insignificant	3 - neither significant nor insignificant	4 - somewhat significant
14	Oficina	5 - significant	5 - significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
15	Daisy	1 - insignificant				
16	EPOKA University	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant	5 - significant	5 - significant
17	In Centar Hub	4 - somewhat significant	4 - somewhat significant	5 - significant	2 - somewhat insignificant	4 - somewhat significant

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

Regional Cooperation Council

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
18	HUB387	4 - somewhat significant	5 - significant	1 - insignificant	1 - insignificant	5 - significant
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	5 - significant	5 - significant	2 - somewhat insignificant	1 - insignificant	5 - significant
20	Serbian Venture Network	2 - somewhat insignificant	4 - somewhat significant	1 - insignificant	1 - insignificant	4 - somewhat significant
21	Kosovo* ICT Association/STIKK	4 - somewhat significant	3 - neither significant nor insignificant	1 - insignificant		5 - significant
22	Institute BioSense	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	1 - insignificant	2 - somewhat insignificant
23	SEEUtechPark	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant	4 - somewhat significant
24	Catholic University 'Our Lady of Good Counsel'					
25	Innovation Centre Banja Luka	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
26	Business Innovation Centre LLC					
27	Science Technology Park Čačak					3 - neither significant nor insignificant
28	Innovation and Entrepreneurship Centre Tehnopolis	5 - significant	5 - significant	5 - significant	5 - significant	5 - significant

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
29	Digitalizuj.Me	5 - significant	5 - significant	2 - somewhat insignificant	2 - somewhat insignificant	4 - somewhat significant
30	Cloud68.co OÜ	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant	5 - significant	5 - significant
31	Polis University					
32	DM Consulting Services / dua-pune.com	5 - significant	4 - somewhat significant		3 - neither significant nor insignificant	3 - neither significant nor insignificant
33	Metropolitan Incubator	2 - somewhat insignificant	2 - somewhat insignificant	2 - somewhat insignificant	2 - somewhat insignificant	2 - somewhat insignificant
34	Science Technology Park Niš					
35	INNVEST	4 - somewhat significant	4 - somewhat significant	1 - insignificant	3 - neither significant nor insignificant	5 - significant
36	KG CODE	5 - significant	5 - significant	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant
37	Yunus Social Business Balkans	4 - somewhat significant	5 - significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
38	Nordeus Hub					
39	Mtel digitalna fabrika	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	2 - somewhat insignificant	2 - somewhat insignificant

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
40	Seavus Education and Development Centre Project: Seavus Accelerator	4 - somewhat significant	4 - somewhat significant	2 - somewhat insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
41	Jakova Innovation Centre	5 - significant	5 - significant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant
42	Business Accelerator UKIM	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant
43	Deli Space for Creative Activity	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant	3 - neither significant nor insignificant
44	MACES - Macedonian Cluster for Export of Software and ICT Services	1 - insignificant	1 - insignificant	1 - insignificant	3 - neither significant nor insignificant	1 - insignificant
45	Institute Mihajlo Pupin	1 - insignificant	2 - somewhat insignificant	1 - insignificant	2 - somewhat insignificant	1 - insignificant
46	MASIT - ICT Chamber of Commerce	4 - somewhat significant	4 - somewhat significant	2 - somewhat insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant
47	UNDP - United Nations Development Programme	1 - insignificant	1 - insignificant	1 - insignificant	1 - insignificant	1 - insignificant

Regional Cooperation Council

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
48	BIT Centre	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	4 - somewhat significant	3 - neither significant nor insignificant	2 - somewhat insignificant	2 - somewhat insignificant	3 - neither significant nor insignificant
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	4 - somewhat significant	4 - somewhat significant	2 - somewhat insignificant	2 - somewhat insignificant	4 - somewhat significant
51	Razlivalište	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant
52	Albania Sustainable Development Organisation	1 - insignificant				1 - insignificant
53	Health Tech Lab	4 - somewhat significant	5 - significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient revenues]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of access to finance/funding options]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of visibility/public awareness]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Legal barriers (e.g. complex administrative procedures to register and operate as DIH)]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Insufficient Government support]
54	ICTSmedia (ICT-Slab)	2 - somewhat insignificant	2 - somewhat insignificant	2 - somewhat insignificant		4 - somewhat significant

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
1	CEED KOSOVO*	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant		
2	ICK	3 - neither significant nor insignificant	3 - neither significant nor insignificant	2 - somewhat insignificant	2 - somewhat insignificant		
3	X Factor Accelerator	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant		
4	ONEX	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant		
5	YES Foundation	4 - somewhat significant	3 - neither significant nor insignificant	5 - significant	2 - somewhat insignificant		

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
6	Venture UP			4 - somewhat significant	4 - somewhat significant		
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	2 - somewhat insignificant	3 - neither significant nor insignificant	2 - somewhat insignificant	3 - neither significant nor insignificant		
8	Networks INT	3 - neither significant nor insignificant	5 - significant	4 - somewhat significant	3 - neither significant nor insignificant		
9	Science Technology Park Belgrade	2 - somewhat insignificant	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant		
10	Business incubator Novi Sad	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	
11	ICT Hub	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant		
12	Coolab Tirana	3 - neither significant nor insignificant	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant		
13	Laboratorija ideja - iDEALab	4 - somewhat significant	2 - somewhat insignificant	4 - somewhat significant	4 - somewhat significant		
14	Oficina	4 - somewhat significant	5 - significant	5 - significant	5 - significant		
15	Daisy	1 - insignificant					

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
16	EPOKA University	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant	5 - significant		
17	In Centar Hub	2 - somewhat insignificant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant		
18	HUB387	4 - somewhat significant	1 - insignificant	4 - somewhat significant	4 - somewhat significant		
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	4 - somewhat significant	1 - insignificant	2 - somewhat insignificant	2 - somewhat insignificant		
20	Serbian Venture Network	2 - somewhat insignificant	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	1 - insignificant	
21	Kosovo* ICT Association/STIKK	3 - neither significant nor insignificant	1 - insignificant	2 - somewhat insignificant	4 - somewhat significant		
22	Institute BioSense	4 - somewhat significant	4 - somewhat significant	2 - somewhat insignificant	1 - insignificant		
23	SEEUTechPark	4 - somewhat significant	2 - somewhat insignificant	5 - significant	4 - somewhat significant		/
24	Catholic University 'Our Lady of Good Counsel'						
25	Innovation Centre Banja Luka	5 - significant	4 - somewhat significant	2 - somewhat insignificant	3 - neither significant nor insignificant		

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
26	Business Innovation Centre LLC						
27	Science Technology Park Čačak						
28	Innovation and Entrepreneurship Centre Tehnopolis	5 - significant	4 - somewhat significant	5 - significant	5 - significant		
29	Digitalizuj.Me	2 - somewhat insignificant	5 - significant	3 - neither significant nor insignificant	4 - somewhat significant		
30	Cloud68.co OÜ	4 - somewhat significant	3 - neither significant nor insignificant	2 - somewhat insignificant	2 - somewhat insignificant		
31	Polis University						
32	DM Consulting Services / dua-pune.com	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	
33	Metropolitan Incubator	2 - somewhat insignificant	1 - insignificant	1 - insignificant	2 - somewhat insignificant		
34	Science Technology Park Niš						
35	INNVEST	4 - somewhat significant	1 - insignificant	5 - significant	5 - significant		

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

Regional Cooperation Council

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
36	KG CODE	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	5 - significant		
37	Yunus Social Business Balkans	5 - significant	3 - neither significant nor insignificant	2 - somewhat insignificant	2 - somewhat insignificant		
38	Nordeus Hub						
39	Mtel digitalna fabrika	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant		
40	Seavus Education and Development Centre Project: Seavus Accelerator	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant	4 - somewhat significant		
41	Jakova Innovation Centre	2 - somewhat insignificant	3 - neither significant nor insignificant	4 - somewhat significant	4 - somewhat significant		
42	Business Accelerator UKIM	5 - significant	5 - significant	5 - significant	5 - significant	5 - significant	
43	Deli Space for Creative Activity	3 - neither significant nor insignificant	4 - somewhat significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant		
44	MACES - Macedonian Cluster for Export of Software and ICT Services	1 - insignificant	1 - insignificant	2 - somewhat insignificant	3 - neither significant nor insignificant		

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
45	Institute Mihajlo Pupin	1 - insignificant	1 - insignificant	1 - insignificant	1 - insignificant		
46	MASIT - ICT Chamber of Commerce	4 - somewhat significant	2 - somewhat insignificant	5 - significant	5 - significant	5 - significant	The concept of DIH is almost unknown in WB economies. There is no mechanism through which an organisation can understand if it is qualified to form a DIH and under which circumstances.
47	UNDP - United Nations Development Programme	2 - somewhat insignificant	1 - insignificant	2 - somewhat insignificant	2 - somewhat insignificant	1 - insignificant	
48	BIT Centre	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	4 - somewhat significant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant		

#	Name of your organisation	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of demand for DIH services/market immaturity]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Understaffing]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of national DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Lack of regional DIH associations/cooperation and promotion bodies]	Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH [Other]	If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	4 - somewhat significant	3 - neither significant nor insignificant	2 - somewhat insignificant	4 - somewhat significant		
51	Razlivalište	3 - neither significant nor insignificant	5 - significant	3 - neither significant nor insignificant	3 - neither significant nor insignificant		
52	Albania Sustainable Development Organisation		1 - insignificant	1 - insignificant	1 - insignificant		
53	Health Tech Lab	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant	3 - neither significant nor insignificant		
54	ICTSmedia (ICT-Slab)	4 - somewhat significant	5 - significant	5 - significant	5 - significant		

## CONNECTION TO SIMILAR ORGANISATIONS

#	Name of your organisation	Please indicate if you are a member of, or cooperate with, a network of similar organisations (DIHs) on local or international level. Please specify which networks. If this does not apply to you, please write "N/A"	Please indicate, if possible, what are the benefits of being part of or cooperating with the networks you specified above. If this does not apply to you, please write "N/A"
1	CEED KOSOVO*	no	n/a
2	ICK	Yes	Networking and experience sharing
3	X Factor Accelerator	N/A	N/A
4	ONEX	We have cooperation with other DIHs in the region, as well as with those from the EU.	It enables us to be involved in various projects
5	YES Foundation		
6	Venture UP	No	NA
7	University of Belgrade - School of Electrical Engineering (ETF); Laboratory for Robotics	DIH-HERO - European Digital Innovation Hubs in Health Care Robotics; DIH2 - A Pan European Network of Robotics DIHs for Agile Production	Be part and directly involved in innovation activities of companies in the field of robotics all around Europe
8	Networks INT	n/a	Networking and collaboration in 4.0 age
9	Science Technology Park Belgrade	We are cooperating with other two newly established STPs in Serbia (Niš and Čačak).	N/A
10	Business incubator Novi Sad		
11	ICT Hub	N/A	N/A
12	Coolab Tirana	N/A	N/A
13	Laboratorija ideja - iDEAlab	iDEAlab Network (Serbia, Bosnia, Montenegro)	Broader network and exchange of knowledge
14	Oficina	i4MS	Experience sharing, knowledge transfer, capacity building
15	Daisy	N/A	N/A
16	EPOKA University	N/A	N/A
17	In Centre Hub	N/A	N/A

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

#	Name of your organisation	Please indicate if you are a member of, or cooperate with, a network of similar organisations (DIHs) on local or international level. Please specify which networks. If this does not apply to you, please write "N/A"	Please indicate, if possible, what are the benefits of being part of or cooperating with the networks you specified above. If this does not apply to you, please write "N/A"
18	HUB387		
19	Foundation for Innovation and Technology Development (INTERA Technology Park)	N/A	N/A
20	Serbian Venture Network	We work with other DIH across the globe, and especially with VCs and Investors to support development	We are able to bring better access to finance, new knowledge and bring investors to Serbia
21	Kosovo* ICT Association/STIKK	N/A	
22	Institute BioSense	agROBOfood DIH network, SmartAgriHubs DIH network, RODIN	
23	SEEUTechPark	Yes, among IASP - International Association of Science & TechParks and Areas of Innovation	Sharing know-how and best practices
24	Catholic University 'Our Lady of Good Counsel'	N/A	N/A
25	Innovation Centre Banja Luka	N/a	N/a
26	Business Innovation Centre LLC		
27	Science Technology Park Čačak	It is possible for us to participate in DIH2 project	
28	Innovation and Entrepreneurship Centre Tehnopolis	N/A	N/A
29	Digitalizuj.Me	Founding member of Startup Europe Western Balkan Network, and member of Startup Europe Regions Network	
30	Cloud68.co OÜ	Mainly open source communities, organisations and companies.	N/A
31	Polis University		
32	DM Consulting Services / duapune.com	n/a	n/a
33	Metropolitan Incubator		
34	Science Technology Park Niš		

Regional Cooperation Council

#	Name of your organisation	Please indicate if you are a member of, or cooperate with, a network of similar organisations (DIHs) on local or international level. Please specify which networks. If this does not apply to you, please write "N/A"	Please indicate, if possible, what are the benefits of being part of or cooperating with the networks you specified above. If this does not apply to you, please write "N/A"
35	INVEST	ICT Hub Serbia	Transferring know-how in Albania and diversify services into innovative service solutions
36	KG CODE	We are members of Co-working Association of Serbia and Growth Hub Initiative (GIZ funded programme)	The benefits include: sharing our mutual experience, improving legal position and advocacy, better visibility and the possibility of taking part in different projects
37	Yunus Social Business Balkans		
38	Nordeus Hub		
39	Mtel digitalna fabrika	We are part of the catalogue of DIHs created by the European Commission, a repository that includes more than 450 existing hubs across Europe. It is an online catalogue which contains comprehensive information on digital innovation hubs in Europe.	Greater visibility, easier interaction with hubs, information exchange and peer-learning
40	Seavus Education and Development Centre Project: Seavus Accelerator	N/A	N/A
41	Jakova Innovation Centre	n/a	n/a
42	Business Accelerator UKIM	N/A	Know-how exchange and utilisation of services provided
43	Deli Space for Creative Activity	Serbian Co-working Association	Networking, launch of new projects, events
44	MACES - Macedonian Cluster for Export of Software and ICT Services	N/A	N/A
45	Institute Mihajlo Pupin	n/a	n/a
46	MASIT - ICT Chamber of Commerce	We are not, but we will be very much interested to become acquainted with the model and opportunities to become a DIH.	N/A
47	UNDP - United Nations Development Programme	N/A	Knowledge and experience sharing
48	BIT Centre		
49	Business Start-up Centre, Faculty of Mechanical Engineering, Ss. Cyril and Methodius University	GEM consortium; SPARK network	YES - joint application to EU project with some of the Network members

#	Name of your organisation	Please indicate if you are a member of, or cooperate with, a network of similar organisations (DIHs) on local or international level. Please specify which networks. If this does not apply to you, please write "N/A"	Please indicate, if possible, what are the benefits of being part of or cooperating with the networks you specified above. If this does not apply to you, please write "N/A"
50	CIRKO (Centar za istraživanje, razvoj i kontinuirano obrazovanje) - Centre for Research, Development and Continuous Education)	No	
51	Razlivalište		
52	Albania Sustainable Development Organisation	N/A	Possible cooperation, sharing projects, ideas, innovation
53	Health Tech Lab	N/A	
54	ICTSmedia (ICTSlab)		

## 8.1. LIST OF 54 QUESTIONNAIRE RESPONDENTS

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
1	BioSense Institute	Serbia	Novi Sad	Dr. Zorana Đinđića 1	Dragana Petković Milica Trajković	Project Manager Project Manager Head of Business Development
2	Belgrade Robotics Hub - BRH	Serbia	Belgrade	Bulevar kralja Aleksandra 73	Asst. Prof. Kosta Jovanović Prof. dr Veljko Potkonjak	Vice dean for cooperation with companies Founder
3	Deli - Space for creative activity	Serbia	Niš	Davidova 2a	Nenad Stojanović Milan Babić	Project Director Management Team
4	Digital Innovation Hub ONEX	B&H	Banja Luka	Veljka Mladenovića bb	Nenad Lakić	
5	Digitalizuj.Me	Montenegro	Podgorica	Vojvode Masa, Djurovica Lamela 3-1	Predrag Lešić Vladimir Vulić Sanja Gardašević	Co-Founder Co-Founder Project Manager
6	INTERA Technology Park	B&H	Mostar	Bišće polje	Mateja Bošnjak Mladen Kostić	Project Assistant CTO
7	HUB387	B&H	Sarajevo	Maglajska 1	Jovana Musić	Managing Director
8	ICT HUB	Serbia	Belgrade	Kralja Milana 10	Kosta Andrić Sandra Nešić	Managing Partner Lead Business Designer & Innovation Manager
9	KG Coworking	Serbia	Kragujevac	Dr Zorana Đinđića 2/1	Ivan Mihailović	Co-Founder/Director
10	Laboratory of ideas - iDEAlab	Serbia	Novi Sad	Dr Ilije Đuričića 3	Vladimir Todorović Danijela Ćirić	Project Coordinator Development and Project Management
11	M:tel digitalna fabrika	Montenegro	Podgorica	Vuka Karadžića 8	Sanja Simonović	Director

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
12	Science and Technology park Čačak	Serbia	Čačak	Nikole Tesle 42	Mirko Pešić Filip Ilić	Business Development Manager Coordinator
13	Science Technology Park Belgrade	Serbia	Belgrade	Veljka Dugoševića 54	Jelena Petrovic	Head of Business Development
14	ICTS Labs (ICT Award)	Albania	Tirana	Rruga Stavro Vinjau Nd.2, H.9, Ap.7 (Rruga e El-basanit) (115.84 mi)	Kushtrim Shala	Co-founder
15	Albanian IT Association (AITA) & INNOVATE	Albania	Tirana	Rruga Luigj Gurakuqi, P.4 Ap.8, Tirana, Albania	Dritan Mezini	Acting Executive Director
16	Oficina	Albania	Tirana	Rruga Asim Vokshi nr 51	Arjan Ymeri	Executive Director
17	Tech Space	Albania	Tirana	Godina e Inovacionit, Rr. Papa Gjon Pali 2, Tirane	Ms. Ada Ilia	Director
18	Yunus Social Business	Albania	Tirana	Rruga e Bogdaneve, nr.14	Shkelzen Marku	Co- Founder & Managing Director at YSB Balkan
19	Open Labs	Albania	Tirana	Pjeter Budi, 1000	Redon Skikuli	Partner
20	Talent Garden	Albania	Tirana	Building No.14, Rruga Donika Kastrioti	Lindita Komani	
21	CoolLab	Albania	Tirana	Kavaja St, Tirana		
22	Innovation Nest Tirana	Albania	Tirana	Rruga Abdyl Frasheri, EGT TOWER, Kati 6, Hyrja 13	Fabiola Duro	Director
23	Epoka University	Albania	Tirana	Rr. Tiranë-Rinas, Km. 12 1032 Vorë	Esmir Demaj	Lecturer
24	POLIS University	Albania	Tirana	Rr. Bylis 12, Autostrada Tiranë-Durrës, Km 5, Kashar	Elona Karafili	Deputy-Rector
25	Catholic University "Our Lady of Good Lord". Università Cattolica "Nostra Signora del Buon Consiglio"	Albania	Tirana	Laprakë, Rruga Dritan Hoxha	Laura Yzeiri	Ufficio progetti formativi e di ricerca [office of projects and research]& Valerio de Luca [Director @ Unizkm Incubator)

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
26	Tirana Metropolitan University / MetroResearch	Albania	Tirana	Pjeter Budi Tiranë	Besa Mancka	Director of MetroResearch
27	In Centar	Serbia	Belgrade	Cara Lazara 5-7	Željko Ilić	Co-founder/General Manager
28	Science and Technology Park Niš	Serbia	Niš	Aleksandra Medvedeva bb	Aleksandra Ristić Bojan Mladenović Aleksandar Đorđević	Assistant Director for Management and Consulting in the field of innovation and business
29	YES business incubator	North Macedonia	Skopje	str. "16-ta Makedonska Brigada" 13B	Gabriela Kostovska	Director
30	Seavus Accelerator	North Macedonia	Skopje	Blvd. 11 October 33A	Vesna Ivanoska	Accelerator Manager
31	South East European University	North Macedonia	Tetovo	Ilindenska 335	Azir Aliu	CEO - TechPark
32	X Factor Accelerator Veles	North Macedonia	Veles	Boris Karpuzov 1	Igor Andreev	Director
33	Business Accelerator UKIM	North Macedonia	Skopje	Skopje 1000	Aleksandar Stamboliev	Director
34	CIRKO	North Macedonia	Skopje	Ruger Boskovik n.n	Trajce Velkovski	
35	Business start up Centre at Faculty for Mechanical Engineering	North Macedonia	Skopje	Ruger Boskovik	Radmil Polenakovik	Director
36	MACES - Macedonian Cluster for Export of Software and IT Services	North Macedonia	Skopje	Franklin Ruzvelt 6	unknown	unknown
37	MASIT - Chamber of Commerce of the ICT Companies of Macedonia	North Macedonia	Skopje	Kosta Veselinov 6	unknown	unknown

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

Regional Cooperation Council

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
38	Razlivalište	Serbia	Belgrade	Kneza Miloša 4	Ivan Vukašinović Sara Čortan Kristina Palic	Founder Project Manager
39	Nordeus Hub	Serbia	Belgrade	Bulevar Milutina Milankovića 11a	Miloš Paunović	Managing and operating Nordeus Hub space
40	Serbian Venture Network Seven	Serbia	Belgrade	Graničarska 11	Anđela Urošević	Investor Relations and Project Coordinator
41	Business Incubator Novi Sad	Serbia	Novi Sad	Vojvođanskih brigada 28	Đorđe Čelić	Director
42	Business Innovation Centre Kragujevac	Serbia	Kragujevac	Trg Topolivaca	Momčilo Sretenović	Director
43	Inovaciono Preduzetnicki Centar Tehnopolis / Innovation and Entrepreneurship Centre Tehnopolis	Montenegro	Nikšić		Jelka Filipović	Marketing Manager
44	Innovaton Centre Banja Luka	B&H	Banja Luka	Dr. Mladena Stojanovića 4	Drago Gverić	Director
45	Institute Mihajlo Pupin	Serbia	Belgrade	Volgina 15	Sanja Vraneš	Director General
46	UNDP Acceleration Lab	B&H	Sarajevo		Arijana Drinić Amina Omićević	Head of Exploration Head of Solutions Mapping
47	BIT Centar	B&H	Tuzla	Trg Slobode 16	Robert Martić Vedrana Ajanović	Director Senior Associate
48	Networks INT Sarajevo	B&H	Sarajevo	Skenderpašina 1	Edin Mehić	Co-Founder
49	Innovation Centre Kosovo*	Kosovo*	Pristina	Rexhep Mala str. 28A	Uranik Begu	Executive Director
50	Jakova Innovation Centre	Kosovo*	Gjakova	Sylejmon Hadum Aga nr:189	Fatos Axhemi	Executive Director
51	Venture UP	Kosovo*	Pristina	111 Eqrem Çabej	Mentor Rexhepi	Executive Director
52	STIKK – Kosovo* ICT Association	Kosovo*	Pristina	Rexhep Mala 28A	Vjollca Çavolli	Executive Director

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
53	CEED Kosovo*	Kosovo*	Pristina	Sejdi Kryeziu no. 54, Pejton Place	Kreshnik Lleshi Valbona Nuredini	Country Director Administrative and Financial Officer
54	Laboratorija zdravstvenih tehnologija (Health Tech Lab)	Serbia	Belgrade	Cara Lazara 5-7	Ivana Kostić Damjan Damjanović	

## 8.2. LIST OF 91 ORGANISATIONS CONTACTED

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
1	BioSense Institute	Serbia	Novi Sad	Dr. Zorana Đinđića 1	Dragana Petković Milica Trajković	Project Manager Project Manager Head of Business Development
2	Belgrade Robotics Hub - BRH	Serbia	Belgrade	Bulevar kralja Aleksandra 73	Asst. Prof. Kosta Jovanović Prof. dr Veljko Potkonjak	Vice DDean for cooperation with companies Founder
3	Bridgeway Europe Startup Accelerator	Serbia	Belgrade	Otona Župančića 42	Mirko Tadić Matthew Torrence	Managing Director Innovation Expert
4	Deli - Space for creative activity	Serbia	Niš	Davidova 2a	Nenad Stojanović Milan Babić	Project Director Management Team
5	Digital Innovation Hub ONEX	B&H	Banja Luka	Veljka Mladenovića bb	Nenad Lakić	
6	Digitalizuj.Me	Montenegro	Podgorica	Vojvode Masa, Djurovica Lamela 3-1	Predrag Lešić Vladimir Vulić Sanja Gardašević	Co-Founder Co-Founder Project Manager
7	Univerzitet u Novom Sadu Fakultet Tehničkih Nauka / University in Novi Sad, Faculty of Technical Sciences	Serbia	Novi Sad	Trg Dositeja Obradovića 6	Boris Antić Zoran Mitrović	Professor
8	MECOnet Institute	Montenegro	Podgorica	M. Selimovica 12	Prof. dr Radovan Stojanovic Prof. Veljko Milutinovic	Management Board
9	INTERA Technology Park	B&H	Mostar	Bišće polje	Mateja Bošnjak Mladen Kostić	Project Assistant CTO
10	Innovation Centre School of Electrical Engineering University of Belgrade	Serbia	Belgrade	Bulevar kralja Aleksandra 73	Milica Đurić Jovičić Ilija Radovanović	Director Deputy Director
11	HUB387	B&H	Sarajevo	Maglajska 1	Jovana Musić	Managing Director

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
12	ICT HUB	Serbia	Belgrade	Kralja Milana 10	Kosta Andrić Sandra Nešić	Managing Partner Lead Business Designer & Innovation Manager
13	KG Coworking	Serbia	Kragujevac	Dr Zorana Đinđića 2/1	Ivan Mihailović	Co-Founder/Director
14	Laboratory of ideas - iDEAlab	Serbia	Novi Sad	Dr Ilije Đuričića 3	Vladimir Todorovic Danijela Čirić	Project Coordinator Development and Project Management
15	M:tel digitalna fabrika	Montenegro	Podgorica	Vuka Karadžića 8	Sanja Simonović	Director
16	Science and Technology Park Čačak	Serbia	Čačak	Nikole Tesle 42	Mirko Pešić Filip Ilić	Business Development Manager Coordinator
17	Science Technology Park Belgrade	Serbia	Belgrade	Veljka Dugoševića 54	Jelena Petrovic	Head of Business Development
18	SMARTIT Studio	Serbia	Novi Pazar	Šabana Koče 25	Mirza Aličković	Founder
19	ICTS Labs (ICT Award)	Albania	Tirana	Rruga Stavro Vinjau Nd.2, H.9, Ap.7 (Rruga e Elbasanit) (115.84 mi)	Kushtrim Shala	Co-founder
20	Albanian IT Association (AITA) & INNOVATE	Albania	Tirana	Rruga Luigj Gurakuqi, P.4 Ap.8, Tirana, Albania	Dritan Mezini	Acting Executive Director
21	Oficina	Albania	Tirana	Rruga Asim Vokshi nr 51	Arjan Ymeri	Executive Director
22	Protik	Albania	Tirana	Rruga Papa Gjon Pali II	Erton Graceni	Executive Director
23	Tech Space	Albania	Tirana	Godina e Inovacionit, Rr. Papa Gjon Pali 2, Tirane	Ms. Ada Ilia	Director
24	Yunus Social Business	Albania	Tirana	Rruga e Bogdaneve, nr.14	Shkelzen Marku	Co- Founder & Managing Director at YSB Balkan
25	Garazh	Albania	Tirana	Rruga Panorama, 1001	Tomi Kallanxhi	Co-Founder
26	Open Labs	Albania	Tirana	Pjeter Budi, 1000	Redon Skikuli	Partner
27	Talent Garden	Albania	Tirana	Building No.14, Rruga Donika Kastrioti	Lindita Komani	

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
28	CoolLab	Albania	Tirana	Kavaja St, Tirana		
29	Innovation Nest Tirana	Albania	Tirana	Rruga Abdyl Frasheri, EGT TOWER, Kati 6, Hyrja 13	Fabiola Duro	Director
30	EXINN Technology Centre	Albania	Tirana	NJB7, Nexho Konomi st, Green City Residence, Pall A4, Office 1	Endri Bahja	CEO
31	Women Founders Network Albania	Albania	Tirana		Blendina Cara	Co-founder
32	Up lift Albania	Albania	Tirana	Rruga Stavro Vinjau Nd.2, H.9, Ap.7 (Rruga e Elbasanit)	Meri Roboqi	Uplift Coordinator
33	Junior Achievement	Albania	Tirana		Suela BALA	Executive Director
34	Epoka University	Albania	Tirana	Rr. Tiranë-Rinas, Km. 12 1032 Vorë	Esmir Demaj	Lecturer
35	POLIS University	Albania	Tirana	Rr. Bylis 12, Autostrada Tiranë-Durrës, Km 5, Kashar	Elona Karafili	Deputy Rector
36	European University	Albania	Tirana	Bulevardi Gjergj Fishta Nd. 70 H.1, Njësia Bashkiake Nr.7	Ketrina Cabiri	Head of Partnership Office
37	University of Tirana	Albania	Tirana	Place, "Mother Terez"	Odeta Kromici	ICT
38	Marin Barleti University	Albania	Tirana	Rruga Sami Frashëri 41,	Jonida Kellezi	Head of Marketing
39	Tirana Business University	Albania	Tirana	Rruga Vaçe Zela, Tiranë 1023	Artan Hoxha	Rector
40	Catholic University "Our Lady of Good Lord".Università Cattolica "Nostra Signora del Buon Consiglio"	Albania	Tirana	Laprakë, Rruga Dritan Hoxha	Laura Yzeiri	Ufficio progetti formativi e di ricerca [office of projects and research]& Valerio de Luca [Director @ Unizkm Incubator)
41	"Aleksander Moisiu" University in Durrës	Albania	Durrës	14, 2001, Rruga Currila, Durrës	Kseanela Sotirofski	Rector
42	Tirana Metropolitan University / MetroResearch	Albania	Tirana	Pjeter Budi Tiranë	Besa Mancka	Director of MetroResearch
43	In Centar	Serbia	Belgrade	Cara Lazara 5-7	Željko Ilić	Co-founder/General Manager
44	Science and Technology Park Niš	Serbia	Niš	Aleksandra Medvedeva bb	Aleksandra Ristić	

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
45	Science and Technology Park Niš	Serbia	Niš	Aleksandra Medvedeva bb	Bojan Mladenović	
46	Science and Technology Park Niš	Serbia	Niš	Aleksandra Medvedeva bb	Aleksandar Đorđević	Assistant Director for Management and Consulting in the field of innovation and business
47	StartIT	Serbia	Belgrade	Savska 5	Vukašin Stojkov Marijana Milićev	General Manager-Co Founder Regional Manager of Startit Centres in Vojvodina at SEE ICT
48	YES business incubator	North Macedonia	Skopje	str. 16-ta Makedonska Brigada 13B	Gabriela Kostovska	Director
49	Seavus Accelerator	North Macedonia	Skopje	Bld. 11 October 33A	Vesna Ivanoska	Accelerator Manager
50	South East European University	North Macedonia	Tetovo	Ilindenska 335	Azir Aliu	CEO - TechPark
51	X Factor Accelerator Veles	North Macedonia	Veles	Boris Karpuzov 1	Igor Andreev	Director
52	Business Accelerator UKIM	North Macedonia	Skopje	Skopje 1000	Aleksandar Stamboliev	Director
53	CIRKO	North Macedonia	Skopje	Ruger Boskovik n.n	Trajce Velkovski	
54	CEED Hub	North Macedonia	Skopje	Ruger Boskovik 18	Gjorgji Kushevski Elena Hadzi Pecova Nikolina Stojanova	Director Manager Coordinator
55	New Man's business accelerator	North Macedonia	Skopje	Orce Nikolov 182	Irena Chaushevaska Danilovska	Director
56	Business start-up Centre at Faculty for Mechanical Engineering	North Macedonia	Skopje	Ruger Boskovik	Radmil Polenakovik	Director
57	MACES - Macedonian Cluster for Export of Software and IT Services	North Macedonia	Skopje	Franklin Ruzvelt 6	unknown	unknown

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
58	MASIT - Chamber of Commerce of the ICT Companies of Macedonia	North Macedonia	Skopje	Kosta Veselinov 6	unknown	unknown
59	ICT HUB Belgrade	Serbia	Belgrade	Makedonska 21	Nenad Moslavac Pavle Krivokuća	Co-Founder & CEO Managing Partner & Chief Revenue Officer
60	Razlivalište	Serbia	Belgrade	Kneza Miloša 4	Ivan Vukašinić Sara Čortan Kristina Palic	Founder Project Manager
61	Digital Serbia Initiative	Serbia	Belgrade	Omladinskih brigada 88a	Miloš Nešović Nebojša Đurđević	Marketing and Communications Director CEO
62	Nordeus Hub	Serbia	Belgrade	Bulevar Milutina Milankovića 11a	Miloš Paunović	Managing and operating Nordeus Hub space
63	Start Labs	Serbia	Belgrade	Milentija Popovica 9	Voja Lalić Nebojša Lazić	Partner CTO
64	Serbian Venture Network Seven	Serbia	Belgrade	Graničarska 11	Anđela Urošević	Investor Relations and Project Coordinator
65	Business Incubator Subotica	Serbia	Subotica	Magnetna polja 6	Srđan Ivanović	Director
66	Business Incubator Zrenjanin	Serbia	Zrenjanin	Kralja Aleksandra I Karađorđevića 2	Bojan Ljutić	Director
67	Business Incubator Novi Sad	Serbia	Novi Sad	Vojvođanskih brigada 28	Đorđe Čelić	Director
68	Delta Business Incubator	Serbia	Belgrade		Nadica Milanović	Innovation Project Manager
69	Business Innovation Centre Kragujevac	Serbia	Kragujevac	Trg Topolivaca	Momčilo Sretenović	Director
70	Startup Centre Niš	Serbia	Niš	Aleksandra Medvedeva 14	Miloš Grozdanović	Director
71	OUR HUB	Serbia	Belgrade	Beogradskog bataljona 4	Filip Oksfeld	COO

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
72	Inovaciono Preduzetnicki Centar Tehnopolis / Innovation and Entrepreneurship Centre Tehnopolis	Montenegro	Nikšić		Jelka Filipović	Marketing Manager
73	Innovation Centre Banja Luka	B&H	Banja Luka	Dr. Mladena Stojanovića 4	Drago Gverić	Director
74	Institute Mihajlo Pupin	Serbia	Belgrade	Volgina 15	Sanja Vraneš	Director General
75	RPC Tuzla Inkubator Livnica	B&H	Tuzla	Proleterskih brigada 60	Muris Nišić	Director General
76	InnoEnergy Hub Serbia	Serbia	Belgrade		Nemanja Milović	Junior CleanTech Hub Manager
77	UNDP Acceleration Lab	B&H	Sarajevo		Arijana Drinić Amina Omičević	Head of Exploration Head of Solutions Mapping
78	BIT Centar	B&H	Tuzla	Trg Slobode 16	Robert Martić Vedrana Ajanović	Director Senior Associate
79	Networks INT Sarajevo	B&H	Sarajevo	Skenderpašina 1	Edin Mehić	Co-Founder
80	Innovation Centre Porto Montenegro	Montenegro	Tivat	Obala bb	Sanja Bukilica	Innovation Centre Coordinator
81	BONEVET	Kosovo*	Pristina	Vëllezerit Frashëri Gjakovë 50000	Vllaznim Xhiha Arber Lleshi	Founder Executive Director
82	Innovation Centre Kosovo*	Kosovo*	Pristina	Rexhep Mala str. 28A	Uranik Begu	Executive Director
83	Gjirafa Lab	Kosovo*	Pristina	Ahmet Krasniqi Veranda, Lokali 7	Vjosa Daku	Project Manager
84	Business start-up Centre in Kosovo*	Kosovo*	Pristina	Ukshin Hoti, Blloku A, Hyrja C4/2,Kati I, Nr.2,	Besnik Krasniqi	Director
85	Jakova Innovation Centre	Kosovo*	Gjakova	Sylejmon Hadum Aga nr:189	Fatos Axhemi	Executive Director
86	Venture UP	Kosovo*	Pristina	111 Eqrem Çabej	Mentor Rexhepi	Executive Director
87	STIKK – Kosovo* ICT Association	Kosovo*	Pristina	Rexhep Mala 28A	Vjollca Çavolli	Executive Director
88	Kosovo* Virtual Incubator	Kosovo*	Pristina	Lagja Kalabria p.n		

MAPPING OF DIGITAL  
INNOVATION HUBS  
and identification of needs within Western Balkans  
and of prospective regional cooperation actions

Regional Cooperation Council

#	Name of "DIH"	WB Economy	City	Address	Contact person name	Contact person role
89	CEED Kosovo*	Kosovo*	Pristina	Sejdi Kryeziu no. 54, Pejton Place	Kreshnik Lleshi Valbona Nuredini	Country Director Administrative and Financial Officer
90	Science and Technological Park Montenegro	Montenegro	Podgorica	Bulevar Mihaila Lalića b.b.	Velibor Bošković	Executive Director
91	Laboratorija zdravstvenih tehnologija (Health Tech Lab)	Serbia	Belgrade	Cara Lazara 5-7	Ivana Kostić Damjanović	Damjan

## INSTRUCTIONS AND EXPLANATIONS TO FILL OUT THE QUESTIONNAIRE

The questionnaire is developed as a Google Form and will be disseminated to targets via e-mail. They will access the questionnaire by clicking on a link.

The questionnaire is divided into 11 sections, each section containing a different number of questions. Instructions and descriptive text are in normal font.

**Questions** are in bold font.

Questions that have a  next to them are multiple choice questions. All questions set conditions, i.e. lead to different sections depending on answer - the text in brackets explains where the answers leads the respondent.

Questions that have a  next to them are checkbox questions. These enable for the selection of multiple answers.

Questions marked *Other* will require respondents to provide short descriptions.



# 9

## ANNEX II – QUESTIONNAIRE FOR DIHS

### Section 1 - Basic info

The aim of this questionnaire is to help Regional Cooperation Council (RCC) in mapping out all the digital innovation hubs in Western Balkans in order to increase their visibility in European digital frameworks and foster cross-border/boundary cooperation.

A digital innovation hub (DIH), in its essence, is an organisation that provides companies with the required technological expertise, equipment and tools (software and hardware) to digitalise their products and/or businesses. Apart from start-ups, DIHs offer their services to SMEs, scale-ups, midcaps and public administration. In addition to providing use of advanced equipment and knowledge transfer, DIHs also help companies in finding access to finance, foster innovation ecosystem, offer training and skills development, and network building and test their ideas and products before bringing them to market.

Q1 Please input your e-mail address

Q2 Name of the organisation

Q3 Please indicate in which Western Balkan economy is your organisation located

- Albania
- Bosnia and Herzegovina
- Kosovo\*
- Montenegro
- North Macedonia
- Serbia

Q4 Have you heard before about the term DIH?

- Yes
- No
- I don't know

Q5	Given the above definition of DIH, can you recognise any DIH(s) in your economy and/or in Western Balkans? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> I don't know
Q6	If the response to the above question is "Yes", please provide the name(s) of the DIH(s) and the economy(s) of operation
Q7	Given the above definition of DIH, would you consider that your organisation is currently compliant to this definition of DIH, or that it plans to be compliant to this definition in the future? <input type="radio"/> Yes (go to section 2 Legal form) <input type="radio"/> No (fill out next question)
Q8	If the response to the above question is "No", please indicate what type of organisation do you identify as <input type="radio"/> Accelerator <input type="radio"/> Incubator <input type="radio"/> Co-working space/hub <input type="radio"/> Research centre <input type="radio"/> Other (please specify)

#### Section 2 - Legal form

Q1	Please indicate how many different legal entities form your organisation <input type="radio"/> Single entity (go to Section 3 - Single entity) <input type="radio"/> Consortium of multiple entities (go to Section 4 - Consortium of multiple entities)
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#### Section 3 - Single entity

Q1	Please select the legal form of your organisation <input type="radio"/> Limited liability company <input type="radio"/> University <input type="radio"/> Scientific/research centre <input type="radio"/> Non-profit organisation <input type="radio"/> Public institution <input type="radio"/> Other (please specify)
Q2	Based on regulations prevalent in your economy, please indicate how your entity is classified <input type="radio"/> Micro entity (less than 10 full-time employees) <input type="radio"/> Small entity (10 to 50 full-time employees) <input type="radio"/> Medium entity (50 to 250 full-time employees) <input type="radio"/> Large entity (250 or more full-time employees) <input type="radio"/> Do not know

#### Section 4 - Consortium of multiple entities

Q1	Please indicate how many entities constitute your consortium <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6 to 10 <input type="radio"/> More than 10
Q2	Please indicate what is the legal form of your consortium <input type="radio"/> Informal - one entity/person is unofficially defined as a coordinator <input type="radio"/> Formal - a consortium agreement defines a coordinator and roles of other entities <input type="radio"/> Formal - a joint venture agreement defines a coordinator and roles of other entities <input type="radio"/> Project based - a project agreement defines a coordinator and roles of other entities for a specific project <input type="radio"/> Formal legal entity - an officially registered entity with a clear governance structure with separate departments for all areas of responsibility
Q3	Please select the legal form of coordinator organisation of your consortium <input type="radio"/> Limited liability company <input type="radio"/> University <input type="radio"/> Scientific/research centre <input type="radio"/> Non-profit organisation <input type="radio"/> Public institution <input type="radio"/> Other (please specify)
Q4	Based on regulations prevalent in your economy, please indicate how your coordinator is classified as an entity <input type="radio"/> Micro entity (less than 10 full-time employees) <input type="radio"/> Small entity (10 to 50 full-time employees) <input type="radio"/> Medium entity (50 to 250 full-time employees) <input type="radio"/> Large entity (250 or more full-time employees) <input type="radio"/> Do not know

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 5 - NUMBER OF EMPLOYEES IN A DIH, PRESENCE

#### Section 5 - Number of employees and presence

Q1	Please indicate the total number of employees within your organisation that are directly involved in the provision of digital innovation services, or in the management of the organisation or its projects that directly relate to digital innovation services <input type="radio"/> Below 2 <input type="radio"/> 2 to 5 <input type="radio"/> 5 to 10 <input type="radio"/> 10 to 20 <input type="radio"/> 20 to 50 <input type="radio"/> More than 50 <input type="radio"/> Do not know
----	--

Q2 Please indicate what is the type of presence your organisation has

- Physical presence only**
- Virtual/online presence only**
- Both physical and virtual/online presence**

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 6 - DONOR SUPPORT IN ESTABLISHMENT

#### Section 6 - Support in establishment

Q1 Did you have support from any external source in establishing your DIH?

NOTE: THIS SECTION IS TO BE FILLED OUT ONLY IF YOU IDENTIFIED YOUR ORGANISATION AS DIH - I.E. IF YOU SELECTED ANSWER "YES" TO QUESTION "Given the above definition of DIH, would you consider that your organisation is currently compliant with this definition of DIH, or that it plans to be compliant with this definition in the future?". IF YOU DID NOT IDENTIFY AS DIH, SKIP THIS SECTION

- Yes** (Continue to next Section 7 - Type of external source)
- No** (Go to Section 8 - Services offered)

#### Section 7 - Type of external source

Q1 Please indicate the type of external source that helped in establishing your DIH

NOTE: THIS SECTION IS TO BE FILLED OUT ONLY IF YOU IDENTIFIED YOUR ORGANISATION AS DIH - I.E. IF YOU SELECTED ANSWER "YES" TO QUESTION "Given the above definition of DIH, would you consider that your organisation is currently compliant with this definition of DIH, or that it plans to be compliant with this definition in the future?". IF YOU DID NOT IDENTIFY AS DIH, SKIP THIS SECTION

- Local**
- EU accession funds**
- Horizon 2020 programme**
- Bilateral support (e.g. foreign embassy)**
- International (e.g. OECD, World Bank, etc.)**
- Other (please specify; if you do not know, please write "N/A")**

Q2 If possible and permitted, please provide the name of the external source that helped in establishing your DIH. If you do not know or cannot provide the name, please write "N/A"

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 8 - SERVICES OFFERED

#### Section 8 - Services offered

Q1 Please check boxes which contain services you offer. Multiple answers possible

- Provision of technical infrastructure (e.g. 3D printers, VR software)**
- Concept validation and Prototyping**
- Testing and Validation**
- Collaborative research**
- Contract research**
- Technical support to scale-up**
- Pre-market series production**
- Provision of commercial infrastructure (e.g. co-working space)**
- Ecosystem learning, community building**
- Representation and promotion**
- Access to finance**
- Access to marketing channels**
- Strategy development**
- Business plan development**
- Incubator/accelerator support**
- Digital maturity assessment**
- Market intelligence**

Q2 Please check boxes next to the verticals for which you provide your services. Multiple answers possible

- Internet of Things**
- Flexible and wearable electronics/Organic Large Area Electronics**
- Robotics**
- Additive Manufacturing**
- Customised Low-energy Computing powering**
- High Performance Computing**
- Cyber-physical and Embedded Systems**
- Blockchain**
- Circular economy solutions**
- Agritech solutions**
- Digital solutions for governments**
- Artificial Intelligence**
- Simulations**
- Virtual Reality**
- Augmented Reality**
- Other (please specify)**

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 9 - REVENUE DISTRIBUTION

### Section 9 - Revenue distribution

**Q1** If possible, please indicate what proportion of revenues does each of the below options that apply to your organisation constitute in your total revenues

	Less than 25%	25% to 50%	50% to 75%	75% to 100%	Not applicable
Paid membership	<input type="radio"/>				
Fee-based provision of services	<input type="radio"/>				
Advertisement	<input type="radio"/>				
Sponsorship	<input type="radio"/>				
National Government grants/subsidies/schemes - project based	<input type="radio"/>				
National Government grants/subsidies/schemes - continuous support	<input type="radio"/>				
Public tenders	<input type="radio"/>				
Private investors	<input type="radio"/>				
International/European funds (e.g. Horizon 2020)	<input type="radio"/>				
Crowdfunding	<input type="radio"/>				
Other	<input type="radio"/>				

**Q2** If you have checked "Other" in the previous question, can you please specify what those other sources of revenue are?

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 10 - FEE STRUCTURE

### Section 10 - Fee structure

**Q1** Please check boxes next to fees you charge users of your services. You can check multiple boxes

- Same rates apply to members and external users
- Different rates apply to members and external users
- Same rates apply to domestic and foreign users
- Different rates apply to domestic and foreign users
- Other (please specify)

**Q2** Please indicate how many users of your services on average you have annually

- Below 10
- 10 to 50
- 50 to 100
- 100 to 250
- More than 250

**Q3** Please indicate your annual revenues

- Below 5k EUR
- 5k to 20k EUR
- 20k to 50k EUR
- 50k to 100k EUR
- 100k to 250k EUR
- More than 250k EUR

AFTER THIS SECTION IS COMPLETED, RESPONDENT GOES TO NEXT SECTION 11 - BARRIERS TO DEVELOPMENT

### Section 11 - Barriers to development

**Q1** Please indicate, if possible, how significant is each of the below barriers to further development of your organisation as a DIH

	1 - insignificant	2 - somewhat insignificant	3 - neither significant nor insignificant	4 - somewhat significant	5 - significant
Insufficient revenues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of access to finance/funding options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of visibility/public awareness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Legal barriers (e.g. complex administrative procedures to register and operate as DIH)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insufficient Government support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of demand for DIH services/market immaturity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understaffing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of national DIH associations/cooperation and promotion bodies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of regional DIH associations/cooperation and promotion bodies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q2** If you have checked "Other" in the previous question, can you please specify what those other barriers to development are?

**Q3** Please indicate if you are a member of, or cooperate with, a network of similar organisations (DIHs) on local or international level. Please specify which networks

**Q4** Please indicate, if possible, what are the benefits of being part of or cooperating with the networks you specified above

AFTER THIS SECTION IS COMPLETED, QUESTIONNAIRE IS SUBMITTED

Five examples from South-eastern and Eastern European EU Member States are provided below, showcasing the role of DIHs, as well as the initiatives these Member States have taken in fostering innovation and digitalisation.

### CZECH REPUBLIC – GOOD PRACTICES

Some economies have put their efforts in promoting and supporting the digital innovation infrastructure by creating policy framework documents and based on this initial effort further support was allocated. Such example is the Czech Republic. Their national strategy Society 4.0<sup>39</sup>, approved in 2017, defines five pillars, two of which address DIH development efforts:

- Connectivity and Mobility
- Education and Labour Market
- Computerisation of Public Administration
- Security
- Industry, Business and Competitiveness

This strategy puts a strong focus on encouraging private investment in the ICT sector, as it is the type of investment that drives innovation along with research centres. By stimulating investments of the private sector, the Ministry of Industry and Trade of Czech Republic aims to preserve free markets and promote competitiveness, having in mind the issue of cyber security so that data can be used efficiently with regards to privacy rights and personal freedoms. To ensure availability of legal services and disseminate awareness of available protection within the digital agenda, the strategy emphasises the improvement of the legal system and its electronic availability, and also places an emphasis on building human capacities in order to further enhance investments in this sector.

### HUNGARY – GOOD PRACTICES

Hungary has focused its efforts directly on operational activities without creating formal policy frameworks prior to implementation of support actions. In 2016, the Hungarian research and education institutions, companies and professional associations founded the Industry 4.0 National Technology Platform. It currently comprises six working groups composed of relevant experts from stakeholders' organisations that, depending on the area they cover, discuss potential issues and provide solutions on how to further assist the platform users. Those groups are divided into the following thematic areas:

- Strategic Planning
- Employment, Education and Training
- Production and Logistics
- ICT Technologies (safety, reference architectures, standards)
- Innovation and Business Model
- Legal Framework.

<sup>39</sup> [https://ec.europa.eu/futurium/en/system/files/ged/cz\\_country\\_analysis.pdf](https://ec.europa.eu/futurium/en/system/files/ged/cz_country_analysis.pdf) (Last accessed: March 2021)



## ANNEX III – CEE AND WB POLICIES AND STRATEGIC APPROACH

As regards research and innovation, the main objectives of the Hungarian digitalisation initiative include improvements of networking and collaboration between the DIHs and companies; creating synergies in research and innovation efforts; improving the transfer of technology and research results; and most importantly creating a continuous collaborative environment in which companies and DIHs create innovative solutions which are then disseminated to SMEs, and entrepreneurs who might not have the expertise or means to cover substantial research, development, and innovation (RDI) expenses. The main forms of collaboration are pilot initiatives, which serve to identify the most efficient ways of technology and knowledge transfer to enable fast and successful digital transformation.

## POLAND – GOOD PRACTICES

Poland has substantially improved its status in the digitalisation industry, specifically by focusing on DIHs and their growth, which then contributes to the geographical density and availability of services that these organisations are offering to the companies.

Apart from well-developed and established infrastructure of DIHs, Poland's Government adopted an economic roadmap ("Responsible Development Plan"<sup>40</sup>) in 2017 widely based on the Digitising European Industry initiative (DEI) and covering the period until 2030. Re-industrialisation, development of innovative companies and securing available capital for development are among the main objectives of this strategy. Apart from this strategy, a key National Work Programme focusing on Research & Development (R&D) called Smart Growth 2014-2020 (PO IR)<sup>41</sup> was adopted that also defines several priority axes of interventions such as:

1. Funding R&D activities in enterprises and sectoral R&D programmes;
2. Development of infrastructure (e.g. for research activities) and business potential of RDI businesses in Poland;
3. Support for innovation in enterprises by increasing the activity of private investors (seed funds, venture capital funds, business angels) in the RDI area;
4. R&D activities carried out by scientific and science-industry consortia within the framework of strategic research programmes, regional research agendas (smart specialisation), and application projects.

## CROATIA – GOOD PRACTICES

Croatian Government has recently adopted the 2030 National Strategy that includes four development goals, one of which is directly related to digital transition of the society and economy.<sup>42</sup>

The implementation of targeted digitalisation programmes will primarily provide support to citizens as well as public administration and the economy. The objective is to successfully

40 <https://www.squirepattonboggs.com/~media/files/insights/publications/2016/09/polands-responsible-development-plan-an-opportunity-for-private-investors/polands-responsible-development-plan-an-opportunity-for-private-investors.pdf>

41 <https://www.poir.gov.pl/stroiny/o-programie/dokumenty/program-inteligentny-rozwoj-wersja-w-jezyku-angielskim-smart-growth-operational-programme-2014-2020/>

42 <https://hrvatska2030.hr/>

carry out this transformation, to make public services even more accessible to citizens and to support companies in the transition to export-oriented high value-added sectors. Accessibility of electronic services is a prerequisite for equal participation of all citizens in society and contribution to smart, sustainable, and inclusive development of the digital society and society as a whole.

The DIHs in particular will benefit from the implementation of 2030 National Strategy as it focuses on raising awareness about the usage of these services. Increased awareness will contribute to the growth of productivity through the services these organisations offer. This substantially influences the country's economy, but also acknowledges the importance and place of DIHs as one of the main intermediary organisations in the process of transformation, digitalisation and competitiveness.

Projects focusing on the economy, with a special emphasis on SMEs and productivity growth, will be encouraged through digital transformation and application of new technologies that provide opportunities to increase competitiveness in the global market.

## SLOVENIA – GOOD PRACTICES

Slovenian Government is actively working on the aspect of digitalisation and discovering new ways to support DIHs and the spread of technology and services they offer. Through the Digital Coalition<sup>43</sup> Slovenia is seeking to accelerate cross-sectoral integration, support development of joint projects and awareness of DIHs. The priority fields for the measures adopted under the Coalition include:

- Broadband and electronic communication infrastructure
- Innovative data-driven services
- Digital entrepreneurship
- Cyber security
- Inclusive information society

Based on a consultation with the private sector, the technological focus is placed on the Internet of Things, Big Data, Cloud Computing and mobile technologies. Thematic contents of the activities will concentrate on digitalisation of entrepreneurship and business as well as smart communities, towns and homes. With the intent to build synergies, joint projects will be designed with involvement of the private sector and non-governmental organisations. The main goal of the projects is to improve digital skills of the population, stimulate young people to choose ICT sector as a career path and provide them with the needs and training of private sector for new digital jobs<sup>44</sup>.

The BlockChain Think Tank<sup>45</sup> was established under the Slovenian Digital Coalition, initially as a working group, aimed at working towards an advanced digital society focusing on:

43 The Slovenian Digital Coalition - comprises stakeholders from trade and industry, science, education, public administration, public sector, local government and civil society with a view to collectively supporting Slovenia's development and implementation of the Digital Slovenia 2020 strategy.

44 <http://digitalna.si/en/>

45 <https://blockchainthinktank.si/>

- integration of Slovenian knowledge in the field of blockchain
- preparation of legal and other proposals
- education and awareness-raising
- development of tests and production environments
- creation of a global blockchain hub in Slovenia
- connections with similar think-tanks and other organisations
- awareness raising regarding Industry 4.0

## WB DIH POLICIES – POLICIES AND STRATEGIC APPROACH

With respect to national strategies and policies for digitalisation and innovation in each WB economy, a special focus was placed on analysing how (and if) DIHs have been covered by these strategic frameworks. In this respect, a gap analysis has been conducted against the benchmarks provided above – across the wider EU region and DIH initiatives as well as against the selected economies.

The analysis has been primarily based on secondary sources of information focusing on national policy documents (i.e. strategies developed by the relevant national Ministries and public institutions), a list of contacts compiled by the RCC, as well as reports and analyses prepared by the relevant international organisations/projects (World Bank, IFC, IMF, USAID and similar). Apart from this, additional information was obtained through interviews organised with representatives of the relevant DIHs operating in the WB region.

## ALBANIA

### Economy Overview

The World Intellectual Property Organisation (WIPO)<sup>46</sup> provides yearly rankings of global economies on innovation performance where in the last edition of 2020, Albania was ranked in 83rd place, amongst 131 economies worldwide. On the Global Competitiveness Index<sup>47</sup> Albania ranked 81st out of 141 economies rated.

### Government stakeholders

The initial government stakeholder in charge of drafting and implementing the strategic ICT policy documents was the former Ministry of Innovation and Public Administration as well as the Council of Ministers. Other relevant institutions that worked in the area of provision of innovation support include Ministry of Finance and Economy and Ministry of Education which is in charge of National Strategy for Science, Technology and Innovation (2017-2022)<sup>48</sup>, Ministry of the State for Entrepreneurs, and Council of Ministers under the Prime Minister's Office.

46 [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf) (Last accessed: March 2021)

47 <https://thegedi.org/global-entrepreneurship-and-development-index/>

48 <https://arsimi.gov.al>

## Overview of strategies

Several documents attempt to emphasise the importance of innovation. Special attention is given to the development of SMEs and entrepreneurship, applying innovation and better financing opportunities to improve business climate and promote entrepreneurial spirit and life-long learning.

Digital Agenda of Albania 2015-2020 Strategy<sup>49</sup> is of relevance to this project, with the vision to “develop a society based on knowledge and information, through the consolidation of digital infrastructure”. The National Strategy for Science, Technology and Innovation 2017-2022<sup>50</sup> aims to improve the legal, institutional and financial framework in service of Science, Technology and Innovation (STI). At the same time, it supports scientific research for promotion of innovation and technology development in cooperation with the business sector and increase of raising awareness of civil society actors, media and public at large about the role of STI in the overall development of society. Its specific objective is to maximise research (raise funds, quality, cooperation with business and diaspora) from 0.2% of GDP during 2009-15 to at least 0.6% (EU28 average is 2%).

**Innovation Hub Tirana** was established in line with the action tasks of the National Strategy for Science, Technology and Innovation 2017-2022, with special emphasis put on “strengthening the innovation ecosystem in Albania, inclusion of scientific diaspora in science, innovation and technology (STI), improving cooperation between business and research community, and stimulating businesses for creating start-ups in innovation and technology”. The financing falls under the National Agency for Scientific Research, Technology and Innovation which is a public legal institution under the Ministry of Education, Sports and Youth.

## Key Findings

Digitalisation strategies of Albania respond to most major challenges in digital innovation development. The aforementioned documents address areas such as improving business infrastructure, need for financial support and creating a network of regional stakeholders; however more emphasis is needed on raising awareness of knowledge and capabilities of DIHs.

National Strategy for Science, Technology and Innovation 2017-2022 defines Research and Development and Innovation as main contributors to the economy, but does not provide sufficiently clear distinction between R&D and Innovation and activities that should be performed for their enhancement. Financial support (primarily through Horizon 2020) is given to young scientists, universities, and for purposes of internationalising research to increase regional and international cooperation.

One of the key observations is that the Albanian Government has limited resources to provide the necessary financial support and guidance to implement policies and provide public grants and services for innovation and entrepreneurship promotion. Although the government aspires to a Triple Helix Approach to innovation, only few concrete actions can

49 [https://akshi.gov.al/wp-content/uploads/2018/03/Digital\\_Agenda\\_Strategy\\_2015\\_-2020.pdf](https://akshi.gov.al/wp-content/uploads/2018/03/Digital_Agenda_Strategy_2015_-2020.pdf) (Last accessed: March 2021)

50 <https://administrata.al/Documents/strategjia%20doc/24.Strategjia%20Kombetare%20per%20Shkencen%20Teknologjin%20dhe%20Inovacionin%202017%20-%202022.pdf> (Last accessed: March 2021)

be considered related to these aspirations at an institutional level. Research is stalled by lacking funds, and innovation and entrepreneurship are not on the agenda.

Similar to other economies in the region, the Albanian National Strategy for Science, Technology and Innovation 2017-2022 does touch upon research and innovation but there is no mention of specific incentives including tax policy reform to stimulate innovation and/or entrepreneurship. In addition, there is no commitment from the Government to delegate specific tasks to governmental bodies and no deadlines for completion are assigned either. In those terms, the National Strategy serves more as a national guideline to emphasise some areas in which more effort is needed for Albania to start with digitalisation and system reform.

## BOSNIA AND HERZEGOVINA

### Economy Overview

The Global Innovation Index 2020 of WIPO ranked Bosnia and Herzegovina 74th out of 131 economies<sup>51</sup>. The Global Competitiveness Index, published yearly by the World Economic Forum, integrates micro and macroeconomic environment into a single index, assessing the ability of economies to enable their citizens' overall prosperity. On this index, in 2020, Bosnia and Herzegovina ranked 92nd out of 141 economies<sup>52</sup>.

### Government stakeholders

Main government stakeholder in charge of implementing the current ICT Development 2017-2021 Strategy is the Bosnia and Herzegovina Ministry of Transport and Communications. It should be noted that Bosnia and Herzegovina is in need of an improvement in terms of government initiatives and activities to create a digitalisation strategy, as well as planning initiatives that stimulate investment and improve business infrastructure for start-ups, SMEs, innovation and research and development. Bosnia and Herzegovina consists of two entities, Federation of Bosnia and Herzegovina and Republika Srpska, and Brcko District. The Federation of B&H consists of ten cantons, which are federal units with their own constitution, parliament, government and judicial powers, while Republika Srpska is an indivisible legal entity with 57 municipalities.<sup>53</sup>

### Overview of the strategy

Bosnia and Herzegovina strategy for fostering innovation, supporting start-ups, IT clusters and developing science and technology parks (STPs), and incubators is laid out in the strategic document related to the overall ICT development. The entire strategy consists of seven pillars, all of which have specific goals and tasks:

- Establishing a unique digital market;

51 [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2020.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf)

52 [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)

53 The shared authorities lay in the domains of monetary, customs and foreign policy, national defense and judicial systems, while each of the Entities has also adopted their own laws on local self-government regarding areas such as education, employment, public administration, healthcare, media and others.

<https://portal.cor.europa.eu/divisionpowers/Pages/Bosnia-Herzegovina.aspx>

- Setting up an interoperability framework and standards;
- Encouraging trust and security;
- Establishing fast and ultra-fast internet access;
- Encouraging development of software industry and investing in research and innovation;
- Supporting start-ups and IT entrepreneurship (financial support, support to development of IT clusters, start-up hubs, incubators etc.);
- Favourable tax policy for entrepreneurs;
- Identifying and using private investment and EU funds for research and innovation in the IT sector;
- Ensuring financial support to the research community and infrastructure, associations, STPs, clusters, business, and innovation incubators;
- Ensuring Bosnia and Herzegovina participation in large EU pilot projects financed through programmes for competitiveness and innovation;
- Creating a business-friendly environment for young entrepreneurs;
- Focusing on development of public-private partnership (high performance computing);
- Strengthening digital literacy and knowledge;
- Applying ICT solutions to the main challenges of B&H society.

### Key findings

The strategy for DIH development of Bosnia and Herzegovina could further be supplemented to include more strategic documents that would elaborate on how to increase investment into RDI, how to promote the opening of science and technology parks and how to support start-up communities. The ICT Development 2017-2021 Strategy does not contain concrete goals and measures to be taken to prepare for Industry 4.0, which would be beneficial for future actions. Pillar 5 of the ICT Development Strategy does mention research and investment, tax policy reform to stimulate entrepreneurship, supporting infrastructure that is relevant for DIH and start-up development, but it makes no commitment for the government to delegate specific tasks to government bodies, and there are no deadlines defined for its completion. In those terms, Bosnia and Herzegovina ICT Development 2017-2021 Strategy serves more as a national guideline to emphasise some areas on which more effort is needed for Bosnia and Herzegovina to start with digitalisation and system reform.

## KOSOVO\*

### Economy Overview

Kosovo\* economy grew consistently above the WB average in the post-global financial crisis period, albeit from a low base. Kosovo\* is not part of the 131 economies ranked on innovation performance by the WIPO, thus data is not available regarding this parameter.

## Government Stakeholders

Kosovo\* IT Strategy<sup>54</sup> is a comprehensive document, which was a result of the work of a self-organising and interdisciplinary working group, including the following stakeholders:

- Kosovo\* Association of Information and Communication Technology (STIKK)
- Innovation Centre Kosovo\* (ICK)
- Ministry of Labour and Social Welfare
- University of Prishtina
- Kosovo\* Investment and Enterprise Support Agency
- Ministry of Economic Development
- Ministry of Trade and Industry
- Ministry of Education, Science and Technology
- Ministry of Finance
- Ministry of Culture, Youth and Sports
- German Agency for International Cooperation (GIZ)
- Norwegian Ministry of Foreign Affairs
- Swiss Development Cooperation (SDC)

## Overview of strategy

The Strategy identified the overall goal for Kosovo\* “to become the main driver for economic growth, employment and innovation by 2020 through increasing international competitiveness of Kosovo\* IT industry based on digital excellence”. In order to achieve this goal, the Strategy is based on nine pillars which contain different support measures for development of Kosovo\* IT industry. Each measure contains a clear set of tasks, responsible actors identified, timeframes and budgets for implementing the measures. The 9 pillars are:

- IT Promotion Policy: Introducing a comprehensive IT promotion policy
- Company Excellence and Quality: Promoting company excellence and quality
- Export Promotion: Promoting exports of Kosovo\* IT industry
- Domestic Market Development: Developing domestic market and increasing productivity through IT
- IT Education: Improving IT education and promoting HR excellence in Kosovo\*
- IT Clusters and Collaboration: Increasing systemic competitiveness through IT clusters and collaboration
- Entrepreneurship: Enhancing IT entrepreneurship in Kosovo\*
- Innovation & Applied R&D: Fostering innovation and applied R&D
- Investment promotion: Promoting Kosovo\* as an IT investment location

54 [http://www.kryeministri-ks.net/repository/docs/Kosovo\\*\\_IT\\_Strategy.pdf](http://www.kryeministri-ks.net/repository/docs/Kosovo*_IT_Strategy.pdf)

## Key findings

While Kosovo\* IT Strategy does cover aspects such as introducing an overall IT innovation and R&D programme and establishment of competence centres for applied R&D in strategic IT topics (such as cloud computing, Cyber-Physical and Embedded Systems, big data etc.), introducing information events on DEP framework (such as H2020) and roundtables for actors in the IT arena, it does not specifically identify DIHs as actors in any of those activities (in which they, by definition, have key roles).

Moreover, even though establishment of competence centres has been mentioned and their roles have been articulated appropriately (e.g. fostering technology transfer, conducting applied R&D for Kosovo\* IT industry, acquisition and implementation of joint R&D projects, etc.), there is no mention or a plan for their evolutionary path towards DIHs. This leaves space to misinterpretation and difficulty for Kosovo\* competence centres to establish themselves as DIHs.

Additionally, there can be an increase in funding since the current actions (e.g. organising a roundtable of IT vendors - total budget 4,000 EUR) could be the culprit for the relatively low visibility of Kosovo\* R&D activities.

## MONTENEGRO

### Economy Overview

In the Global Innovation Index 2020 Montenegro ranked 49th out of 131 economies<sup>55</sup>. In the Global Competitiveness index, in 2020, Montenegro ranked 73rd out of 141 economies<sup>56</sup>.

Lastly, in 2020, the European Innovation Scoreboard (EIS)<sup>57</sup> considered Montenegro as a “modest innovator” with a strong increase from 2018 due to improved performance on broadband penetration, most cited publications, and private co-funding of public R&D.

### Government stakeholders

The Government of Montenegro has developed several strategic documents that aim to foster development of digital innovation and R&D, of which most relevant are the Montenegro SME Development Strategy 2018-2022<sup>58</sup>, Strategy of Scientific Research Activity 2017-2021<sup>59</sup>, Strategy for Innovative Activity (2016-2020)<sup>60</sup> and Fostering Montenegro Innovative Start-ups Programme 2019-2021<sup>61</sup> on development of SMEs and entrepreneurs, as well as stimulating innovation and supporting start-ups in different stages of development through various financing measures and general business support. The above-mentioned strategies have been developed by the Ministry of Science and supported in implementa-

55 [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2020.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf)

56 [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)

57 [https://ec.europa.eu/growth/industry/policy/innovation/scoreboards\\_en](https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en)

58 <https://mna.gov.me/biblioteka/strategije>

59 <https://mna.gov.me/biblioteka/strategije>

60 <https://mna.gov.me/biblioteka/strategije>

61 <https://mna.gov.me/en/news/195229/Programme-of-Measures-Promoting-Innovative-Start-Ups-in-Montenegro-and-accompanying-Action-Plan-adopted.html>

tion by the Ministry of Economy, Ministry of Foreign Affairs, Ministry of Finance and Social Welfare, Chamber of Economy of Montenegro and other public institutions.

### Overview of strategies

The main objectives of these documents include increasing the networking and collaboration of stakeholders in the market, and increasing the access of innovative companies and solutions to the European and international markets. Below are the main areas in which the abovementioned strategies plan to encourage innovative SMEs, entrepreneurs, and start-ups in Montenegro:

### Regulations and necessary legal reforms

The strategies stress the need to establish legal definitions of innovation start-ups and create a continuously updated and monitored register of such companies in Montenegro. Another way to improve the business environment and facilitate innovation is by decreasing administrative procedures and simplifying bureaucratic processes.

### Management

Establishing a government structure that will be responsible for monitoring development and improving the programme structure accordingly.

### Financing and access to capital

Using financial and fiscal instruments to stimulate businesses to innovation streams, encourage financing of start-ups and innovations by private stakeholders and improving affordability of bank loans and microloans (in terms of interest rate, payment deadlines and payment structure). In order to stimulate private sector investment, the government of Montenegro planned to introduce tax incentives for companies that invest in R&D, digitalisation of businesses and innovative solutions. Aside from widening funds and access to national funding, support will be provided to enable access to European sources of funding (COSME, HORIZON, WB EDIF, IPA, CREATIVE EUROPE etc.).

### Talent availability

Increasing the local talent pool by supporting entrepreneurial education at universities and introducing a programme to provide start-up visas and citizenship on the grounds of economic contribution.

### Entrepreneurial culture

Increasing promotion campaigns for mentoring offered to start-ups in initial stages of development and increasing the number and awareness of competitions, hackathons, boot camps, and conferences.

### Access to the markets

Making available international markets to innovative companies through e-commerce and creating a local market for innovation through public procurements, especially on city level.

### Key findings

Montenegro could benefit from increased national investment in research innovation, science and technology parks and establishing other public/private research organisations that can drive innovation.<sup>62</sup> The Government has taken a step in the right direction with the increase of funding for innovation, science and STPs since 2017; however STP Montenegro will not be open until December 2021. This is a significant step but there is a need to create the link between the public and private sector so that the private sector can drive innovation development according to its needs.

The Strategy of Scientific Research Activity 2017-2021<sup>63</sup> elaborates on the need for development of science and technology parks and the importance of technology transfers, but following the example of Czech Republic, a successful model of technology transfer and collaboration of stakeholders in the market has to be self-sustainable in the long-term. The DEI initiative, and both regional, Slovenian, Polish and Czech Republic initiatives recognise the importance of strong research institutions that would collaborate with private actors in the market to drive innovation that will later be disseminated to the rest of the market stakeholders through technology transfer and successful spin-offs.

Investment in developing R&D capabilities is the key step in making a self-sustainable R&D model that would after some time function independently, without a need for continuous government support. The research organisations and science-technology parks would also help with technological development, prototyping and testing of any new innovative ideas and products that young start-ups are developing. Since not all players in the market have the funds to invest in R&D capabilities, already established institutions for science and research would significantly lower such expenses and make this research available to the wider market audience.

## NORTH MACEDONIA

### Economy Overview

Global Innovation Index 2020 of WIPO ranked North Macedonia 57th out of 131 economies<sup>64</sup>. North Macedonia was also chosen as an Innovation Achiever, both in 2019 and 2020.<sup>65</sup> On the Global Competitiveness index, in 2020, North Macedonia ranked 82nd out of 141 economies<sup>66</sup>.

Lastly, in the 2020 report, the EIS17 considered North Macedonia as a “modest innovator” with a steady rise every year most notably due to improved performance in foreign doctorate students, medium- and high-tech product exports, tertiary education, and broadband penetration.

62 <https://www.insme.org/montenegrin-research-and-innovation-landscape/>

63 <https://mna.gov.me/biblioteka/strategije>

64 [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2020.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf)

65 [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2020-chapter1.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020-chapter1.pdf)

66 [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf) (Last accessed: March 2021)

## Government Stakeholders

The main government stakeholders in digital and innovation industry are the Fund for Innovation and Technological Development (FITD)<sup>67</sup>, Macedonian Academy of Science and Art and the Government, specifically the Ministry of Education and Science.<sup>68</sup> Other relevant institutions that are engaged in the digital innovation and R&D related strategies are the World Bank, USAID, UNDP and UNICEF.

## Overview of strategies

The Government of North Macedonia recognised the importance of digital innovation and R&D as one of the highest priorities for development, and to that end, established an official institution focused on funding the development of these areas - the FITD.

FITD mission is to encourage and support innovation activity in micro, small and medium enterprises for achieving accelerated technological development, based on knowledge transfer, research for development and innovation that contribute to job creation and economic growth and development, while improving the business environment to develop companies' competitiveness.

The Fund is focused on:

Co-financing of micro, small and medium enterprises registered in North Macedonia in order to encourage innovation activity, implementation of innovative solutions and innovative processes, introduction of innovations and technology transfer in companies, as well as support to companies that have high growth potential;

Financing of newly established, micro and small enterprises registered in North Macedonia, foundations and accelerators in order to encourage innovation in companies and transfer the results of scientific research into applied or commercial activities by establishing spin-off companies;

Achieving long-term positive contribution to development of national economy, improving competitiveness through technological and operational improvements and providing new jobs; supporting establishment of business-technological accelerators, entities for providing infrastructural support to the innovation activity, in order to accelerate entrepreneurship by supporting individuals who want to start a company, as well as already established enterprises in their initial phase (which exist for a maximum of 6 years ) by providing educational, logistical and financial assistance.

Programmes have already been piloted in the two pillars: digitalisation of society and transfer of technologies. The estimated value of investments in Fund's physical infrastructure, according to the Feasibility Study (part of Communication on EU enlargement policy)<sup>69</sup> prepared by EC experts, is around 80 million euros.

The Government has aimed for several other initiatives<sup>70</sup> focused on stimulating start-ups and investments in digital innovation, some of which include:

67 <https://fitr.mk>

68 <https://fitr.mk/sorabotka/>

69 [https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/north\\_macedonia\\_report\\_2020.pdf](https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/north_macedonia_report_2020.pdf)

70 [https://sds.org.mk/wp-content/uploads/2020/06/Programa-2020\\_Mozeme.pdf](https://sds.org.mk/wp-content/uploads/2020/06/Programa-2020_Mozeme.pdf)

Business accelerators: Three business accelerators, in which the state has a share through the FITD, have been established with a separate 3.4 million euros. FITD's public call Startup supports young people and their innovative business ideas. In 2019, 1.8 million euros were provided and used to support 48 projects, including grants for starting start-up businesses, through which 45 new jobs were created at the very onset.

Regional accelerator for start-ups: The Government aims to launch a regional accelerator in 2021, which will include applicants from Western Balkan economies within the first 6 months of operation. This step will enable North Macedonia to become a regional centre for development of new businesses for young entrepreneurs, with the potential for rapid growth.

Grants for research activity with potential for commercialisation: During 2021, the Government will launch grants for research activity that will cover higher education institutions and will encourage their commitment to support accelerated growth, based on innovation.

Start-up Ambassadors: During 2021, the Government will establish a network of start-up ambassadors including people living and working in North Macedonia and people living and working in major technology centres in Europe and the world. The concept of start-up ambassadors provides significantly reduced liabilities for the state (not more than 500 to 800 euros per month), with the possibility for the person to earn from each investment in a start-up company and/or realised placement on the foreign market.

Start-up Village: In the former Macedonian Village (which is now owned by the state), a "Start-Up Village will be established which will offer physical space for young people who have started a business or are preparing to do so.

National smart specialisation strategy (S3) is in the process of development. The first phase of this process (Mapping economic, innovative and scientific potential in North Macedonia) supported by GIZ was finalised in late 2019 and adopted by the Government of North Macedonia. Due to the crisis induced by Covid-19, finalisation of S3 is progressing at a slower pace.

## Key findings

The Government of North Macedonia has launched a number of initiatives in the recent years aimed at supporting and promoting innovation and R&D. However, compared to one of the goals of the DEI - to have a DIH accessible to companies "at working distance, in a location that would be convenient for everyday business" - it is evident that the initiatives do not cover development of DIHs as one-stop shops for digital innovation and R&D activities. The initiatives instead employ a decentralised approach with creating multiple institutions and schemes. This leaves space for misinterpretation of what the role of DIHs in North Macedonia is and makes it difficult for them to achieve higher visibility and service provision.

## SERBIA

### Economy Overview

Global Innovation Index 2020 of WIPO ranked Serbia 53rd out of 131 economies<sup>71</sup>. Serbia was also chosen as an Innovation Achiever in 2012, 2018 and 2020.

On the Global Competitiveness index, in 2020, Serbia ranked 72nd out of 141 economies<sup>72</sup>.

Lastly, in 2020, the EIS17 considered Serbia as a “moderate innovator” with a high score in enterprises providing ICT training, SMEs innovating in-house, non-R&D innovation expenditures, and SMEs with product or process innovations.

### Government stakeholders

The Government of Serbia has 3 key national strategies focused on fostering digital innovation and R&D – “Strategy for the support to development of small and medium-sized enterprises, entrepreneurship and competitiveness for the period from 2015 to 2020”<sup>73</sup>, “Strategy on Scientific and Technological Development of the Republic of Serbia 2016-2020”<sup>74</sup> and “Industrial Policy Strategy 2021-2030”<sup>75</sup>. The above-mentioned strategies have been developed by several ministries, including the Ministry of Education, Science and Technological Development, Ministry of Economy, Ministry of Finance, Chamber of Commerce, various national associations and educational institutions.

### Overview of strategies

DEVELOPMENT STRATEGY FOR SMEs AND ENTREPRENEURS 2015-2020| Serbia has addressed the need for development of micro, small, and medium enterprises, and support to entrepreneurs through several strategic documents that address overall actions for improving the business environment and directly supporting the companies in their business processes, financing, networking and market access. The first relevant document is the Development Strategy for SMEs and Entrepreneurs 2015-2020. The strategy rests on six pillars that address the improvement of business environment, increasing access to finance, development of human resources, provision of access to new markets, and improvement of sustainability, competence, development, and promotion of entrepreneurship, especially among women and youth.

RESEARCH FOR INNOVATION | The main objectives of the Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016 – 2020<sup>76</sup> are to establish facilities for better communication and collaboration between stakeholders in scientific research, and to encourage technology transfers and spinoffs from scientific research. The strategy aims to strengthen the link between science, economy, and society to encour-

71 [https://www.wipo.int/edocs/pubdocs/en/wipo\\_pub\\_gii\\_2020.pdf](https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf)

72 [http://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)

73 <https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/vlada/strategija/2015/35/1/reg> (Last accessed: March 2021)

74 <https://kg.ac.rs/Docs/Strategija-ingleski-jezik.pdf>

75 <https://www.pravno-informacioni-sistem.rs/SlGlasnikPortal/eli/rep/sgrs/vlada/strategija/2020/35/1/reg> (Last accessed: March 2021)

76 <https://kg.ac.rs/Docs/Strategija-ingleski-jezik.pdf>

age innovation by improving collaboration between scientific research organisations and business entities, encouraging public-private partnerships, establishing science and technology parks and encouraging more efficient commercial spin-offs from research findings.

Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016 – 2020 | In this strategic document, the Government places importance on dynamic, smart, sustainable, and inclusive growth as top priority in development of Serbian industry in the next decade. On a horizontal level in the industry, the Strategy will focus on improving business infrastructure, investment, innovation, and digital transformation to build a self-sustainable progressive business environment.

Two of the six areas of intervention are Innovation and Going Digital in order to improve the scale of commercial innovation and the speed at which businesses go through digital transformation. The elements of this Strategy that address support of DIHs, related organisations and institutions are outlined in the following goals and measures:

Networking and Knowledge – Organising informational gatherings and exchange of information among industry stakeholders, IT clusters and start-up communities.

Application of digital solutions to industry – The programme will offer grants that cover up to 50% of expenses for implementation of the relevant digital solutions, equipment, or consulting services in terms of digital solutions. The only condition is for companies to have a clear roadmap and a vision of how digital transformation can increase their competitiveness.

Availability of financial instruments – Increasing the level of financing for digitalisation processes and innovative technological solutions.

Cooperation with research institutions – The measure targets industrial entities that would cooperate with public scientific research teams on the introduction of innovative solutions which would improve and move the production process to higher stages of technological production.

Exposure to international programmes – Inclusion of industrial economic entities in international programmes which aim to improve industry competitiveness.

Supporting institutional infrastructure – Improving production processes through industrial institutional infrastructure projects (clusters, business incubators, STPs, regional development agencies, associations, etc.).

### Key findings

The strategies of Serbia respond to all major challenges in DIH development. They address improving the business infrastructure, creating a network of regional stakeholders, both public and private, increasing awareness of and knowledge about the capabilities of digital innovation hubs and public/private partnerships. They address the need for increased financing and new financial instruments that should be made available to companies/organisations in different stages of development.

The Government has also adopted an innovation strategy for research and development that would improve the capabilities of universities, STPs, research institutions and private R&D facilities. The documents focus on technology transfers and spin offs as a way to in-

crease the rate of digitalisation with SMEs and companies that might not be able to invest in R&D.

However, looking at initiatives of Eastern EU MS, Serbia can do more to foster partnerships between large industry stakeholders and prominent R&D institutions. Both Czech Republic and Hungary have specific national initiatives, partially funding projects that are a joint collaboration of research institutions and large European companies. A similar model would work well in Serbia to increase the amount of private funding in R&D, making it market and industry driven, instead of R&D being continuously subsidised through public programmes and EU grants.



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