Participation of the Danube Region Countries in Horizon 2020

Analysis

Interreg
Danube Transnational Programme

DANUBE REGION strategy
Prosperity through Diversity

EUROPEAN UNION

UNIVERSITY OF BELGRADE

SLOVAK CENTRE OF SCIENTIFIC AND TECHNICAL INFORMATION

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ACRONYMS

Acronyms –Countries and Regions participating in the EUSDR	AT – Austria; BA – Bosnia and Hercegovina; BG – Bulgaria; CZ – Czechia; DE – Germany; HR – Croatia; HU – Hungary; MD – Moldova; ME – Montenegro; RO – Romania; RS – Serbia; SI – Slovenia; SK – Slovakia; UA – Ukraine; BAV – Bavaria; BW - Baden-Württemberg
Acronyms – EU Member States	BE – Belgium; CY – Cyprus; DK – Denmark; EE – Estonia; EL – Greece; ES – Spain; FI – Finland; FR – France; IE – Ireland; IT - Italy; LT – Latvia; LU – Luxembourg; LV – Lithuania; MT – Malta, NL – Netherland; PL – Poland; PT – Portugal; SE – Sweden; UK – United Kingdom
Acronyms – Other Countries	CH – Switzerland; IL – Israel; IS – Iceland; NO – Norway
Acronyms – Associate and Candidate States	AL – Albania; AM – Armenia; GE – Georgia; MK – North Macedonia; TN – Tunisia; TR - Turkey
EUSDR	The EU Strategy for the Danube Region (EUSDR)
AC EUSDR	Associate countries among EUSDR countries – BA, MD, ME, RS, UA
AC&CC	Associate and candidate countries that are not part of the AC EUSDER – AM, GE, MK, TN, TR

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FOREWORD

The purpose of this report is to analyse the participation patterns in Horizon 2020 and the possible causes for the lower participation of researchers from particular Danube region countries.

We have prepared two types of online questionnaires: one for applicants/participants to the programme and the other one dedicated for policy representatives (programme representatives) from the Danube region countries. The aim was to analyse the strengths and gaps in terms of participation of researchers from particular countries in Horizon 2020 (and in other European grant schemes), to better understand the differences in national support mechanisms and at latter stage also formulate recommendations for improving the performance on macroregional level in the upcoming Horizon Europe programme.

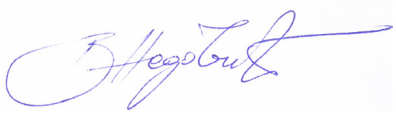
The questionnaires were open from 1 September 2020 until 30 November 2020. All Danube region ministries responsible for education, research, science and innovation; national agencies responsible for administration and management of the programme; liaison officers; programme officers; national contact points and delegates were approached in order to fill in the survey as well as distribute it to other relevant stakeholders.

In order to efficiently promote the ongoing survey, we contacted Danube Strategy Point, Danube Rectors Conference, Danube Region National Coordinators and Priority Area Coordinators to spread the questionnaires to their contacts and potential participants.

The findings should provide us with answers on both strengths in the national management of the programme, as well as gaps, in terms of missed opportunities, policy shortcomings, national/regional support mechanisms for applicants, etc.

We hope you will find it an interesting reading and that we will be able to welcome you at some of our upcoming events related to this issue in the future.

Lubica Pitlová
Coordinator of the EUSDR PA7
Slovakia



Viktor Nedovic
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Serbia

INTRODUCTION

The EU Strategy for the Danube Region (EUSDR) is a macro-regional strategy adopted by the European Commission in December 2010 and endorsed by the European Council in 2011. The Strategy was jointly developed by the Commission, together with the Danube Region countries and stakeholders, to address common challenges together. The Strategy seeks to create synergies and coordination between existing policies and initiatives taking place across the Danube Region.[1]

The EUSDR includes 14 countries (9 EU member states, 3 accession countries and 2 neighbouring countries). The Danube Region Strategy addresses a wide range of issues; these are divided among 4 pillars and 12 priority areas. Each priority area is managed by two countries as Priority Area Coordinators (PACs).

Priority Area 7 "To develop the Knowledge Society (research, education and ICT)" is coordinated by Slovakia and Serbia, together with the involvement of a wide network of key players.

New Priority Area 7 objectives (as of 2019) are as follows:

- To support education, research, and ICT in the Danube Region by improvement of framework conditions for building a knowledge society
- To contribute to an increasing level and quality of network activities, strengthening the existing links and fostering new cooperation in the Danube Region
- To strengthen the realization of the European Research Area in the Danube Region
- To revert brain drain and foster brain circulation
- To further implement Smart Specialization Strategies in all Danube countries[2]

The aim of this study is to assess the participation of the Danube Region (DR) countries in Horizon 2020, cooperation among them and as well as to make recommendations for improving the situation in the region. The analysis focuses on Priority Area 7 - Knowledge Society (Research, Education, and ICT), which is jointly coordinated by Slovakia and Serbia.

The study consists of four main parts:

The chapter Participation in Horizon 2020 brings the quantitative and qualitative comparisons of DR countries' participation in Horizon 2020, their success rate and cooperation among them and beyond the region.

The second chapter focuses on national systems Horizon 2020 systems, primarily on support structures for Horizon 2020 in EUSDR countries.

The third chapter assesses the results of the survey that was conducted among DR countries.

The last chapter contains recommendation for increasing participation and a SWOT Analysis.

[1] More information available online at: https://danube-region.eu/about/
[2] More information available online at: https://danube-region.eu/eusdr-action-plan-2020/

METHODOLOGY

The analysis focuses primarily on the comparison of DR countries' participation in Horizon 2020. The comparison was based primarily on data available in the databases of Eurostat, OECD and E-corda (17 December 2020). In the evaluation, we combined quantitative and qualitative methods, focusing primarily on the countries of the Danube region. In some cases, if a better comparison required it, we also used comparisons with other European countries. The analysis is partly influenced by the availability of data for individual countries and regions.

The Member States of the Danube Strategy can be divided into four groups:

- **Member states** (Austria, Bulgaria, Croatia, Czechia, Germany, Hungary, Romania, Slovakia and Slovenia);
- **Candidate and potenital candidate** (Bosnia and Herzegovina, Montenegro and Serbia);
- **Neighbouring countries** (Moldova and Ukraine);
- **Regions** (Bavaria and Baden-Württemberg).

In our evaluation we compared the participation of DR countries in Horizon 2020, their success rate and cooperation. At the same time, we compared DR countries that are not part of the EU with other associated countries of Horizon 2020. We divided the associated countries into three categories (Table 1):

- Associated developed countries (here we included the EFTA countries - Switzerland, Iceland, and Norway, as well as the Faroe Islands and Israel). These countries have many years of experience in participating in the framework programmes.
- DR countries (Bosnia and Herzegovina, Moldova, Montenegro, Serbia, and Ukraine) - AC DR
- Other candidate and associated countries (Albania, North Macedonia, Turkey, Georgia, and Tunisia) - AC&CC.

We will base our evaluation and comparison on contrasting the two latter groups of countries. We are trying to eliminate disparities in differentiation, as Switzerland, Israel and Norway are among the most successful countries in Horizon 2020 and it is not possible to compare them with other associated or candidate countries.

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Table 1 Status of the associated countries

Acronym	Country	Status
AL	Albania	ASSOCIATE-CANDIDATE-INCO-WESTERNBALKAN
AM	Armenia	ASSOCIATE-INCO-EAST
BA	Bosnia and Herzegovina	ASSOCIATE-INCO-WESTERNBALKAN
CH	Switzerland	ASSOCIATE-INCO-EFTA
FO	Faroe Islands	ASSOCIATE
GE	Georgia	ASSOCIATE-INCO-EAST
IL	Israel	ASSOCIATE
IS	Iceland	ASSOCIATE-INCO-EFTA
MD	Moldova (Republic of)	ASSOCIATE-INCO-EAST
ME	Montenegro	ASSOCIATE-CANDIDATE-INCO-WESTERNBALKAN
MK	North Macedonia	ASSOCIATE-CANDIDATE-INCO-WESTERNBALKAN
NO	Norway	ASSOCIATE-INCO-EFTA
RS	Serbia	ASSOCIATE-CANDIDATE-INCO-WESTERNBALKAN
TN	Tunisia	ASSOCIATE-INCO-SOUTH-AFRICAN
TR	Turkey	ASSOCIATE-CANDIDATE
UA	Ukraine	ASSOCIATE-INCO-EAST

Source: European Commission 2020, adopted by the authors

Wherever possible, we compared German federal states Bavaria and Baden-Württemberg with other countries. If we did not have relevant data for these two federal states, we used data for the whole of Germany.

All in all, in the analysis we analysed states at four levels:

- EU Member States (including UK and other countries)
- DR
- AC DR
- AC&CC

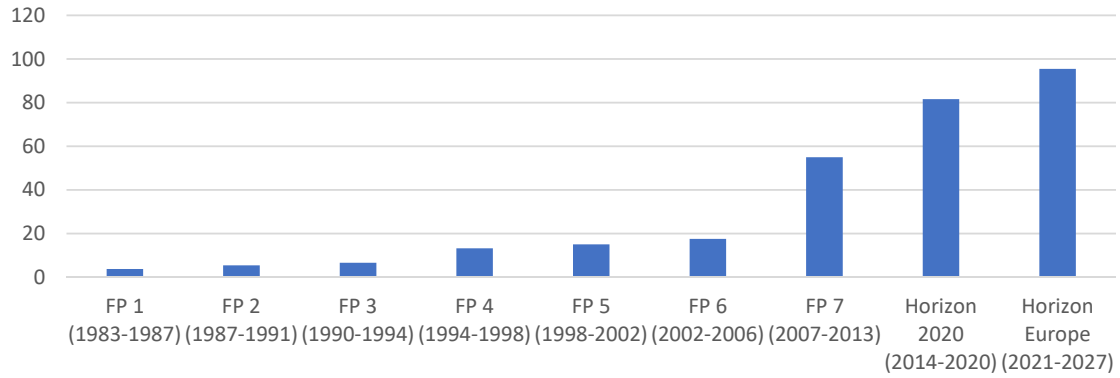
The fourth part of this analysis is based on the two surveys that were conducted among participants or potential participants in Horizon 2020 and policy makers in DR countries from September to November 2020.

1. HORIZON 2020 - GENERAL INFORMATION

Horizon 2020 is the EU's largest programme to support research and innovation. The total budget for the 2014-2020 period reaches almost 80 billion €. The Graph 1 below shows the redistribution of budget of the EU Framework Programmes.

Horizon 2020 is one of the tools for implementing the Europe 2020 Strategy and the Innovation Union flagship initiative. The aim is to support excellent research and innovation and the best researchers. The programme is open to all researchers from around the world.

Graph 1 Budget of the EU Framework Programmes (billions €)



Source: European Commission 2020, adopted by the authors

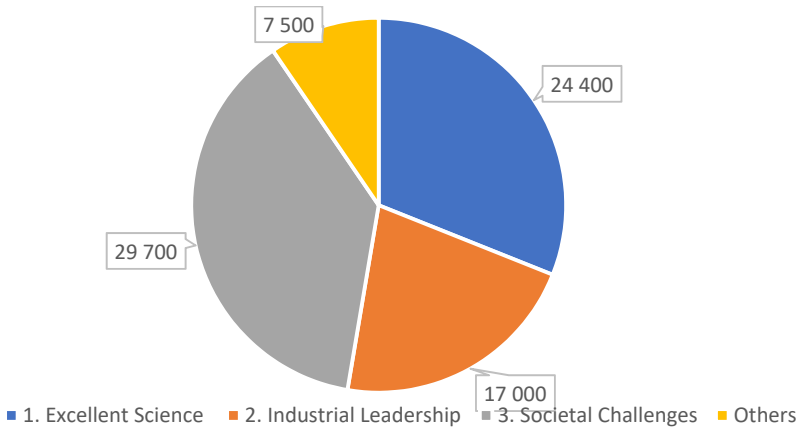
The goal is to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovations.

Horizon 2020 is helping to achieve this with its emphasis on excellent science, industrial leadership and tackling societal challenges. The distribution of Horizon 2020 budget is shown in the Graph 2.

The programme is divided into three basic pillars and other activities:

- Excellent Science
- Industrial Leadership
- Societal Challenges
- Spreading Excellence and Widening Participation
- Science with and for Society
- Euratom

Graph 2 Horizon 2020 budget distribution



Source: DG Research and Innovation 2020, adopted by the authors

The countries participating in Horizon 2020 are divided into several categories:

- Member states
- Associated countries
- Third countries

As we have already mentioned in the methodology, in our evaluation we will compare mostly those countries that are part of the EUSDR and are not members of the EU with candidate and accession countries that have no experience with framework programmes and could be described as widening countries.

2. PARTICIPATION: PARTICIPATION OF THE EUSDR COUNTRIES IN HORIZON 2020

Germany has the highest number of participations in Horizon 2020 (19 224) ahead of Spain (17 331), Great Britain (16 384), and France (15 852). By contrast, Malta (224), Latvia (502), Lithuania (574), and Luxembourg (576) have the lowest participation numbers among Member States. In terms of EC contribution, Germany (9.24 billion €), the United Kingdom (7.36 billion €) and France (6.92 billion €) received most of the funding. Malta (34.18 million €), Lithuania (89.05 million €) and Latvia (102.39 million €) are at the other end in this aspect.

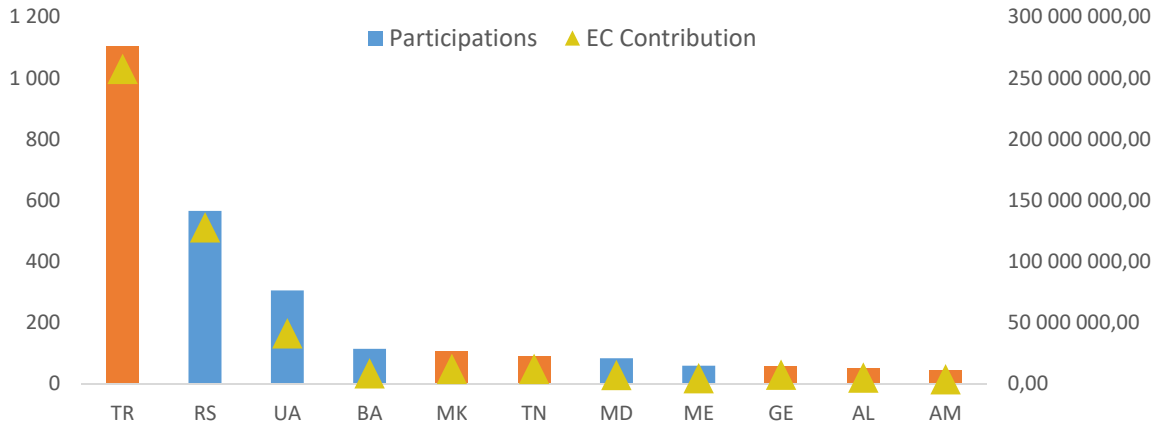
Among the DR countries, Bavaria has the largest participation number (4,693), ahead of Austria (4,666), Baden-Württemberg (3,083) and the Czechia (1,728). Montenegro (59), Moldova (83), Bosnia and Herzegovina (114) and Ukraine (305) have the lowest participation numbers. None of the non-EU DR countries had a higher participation number than EU Member States in the EUSDR. In terms of the EC's financial contribution, the difference between EU and non-EU Member States is even more obvious. Bavaria received 2.78 billion €, Baden-Württemberg 1.45 billion € and the Czechia 449.88 million €. Montenegro (4.49 million €), Moldova (7.1 million €) and Bosnia and Herzegovina (8.48 million €) received the least (Graph 3).

Graph 3 EC contribution (€) and participation in Horizon 2020

Source: E-corda database accessed on 17 December 2020, adopted by the authors

We also compared AC EUSDR and AC&CC in absolute terms. However, it should be emphasized here that Turkey dominates among these countries with more than 83 million inhabitants. Turkey also has the highest participation number in projects - 1,104 and the highest EC contribution - 257.36 million €. It is followed by Serbia (565 participations and 127.88 million €) and Ukraine (305 and 41.14 million €). In our comparison, the last three places are all AC&CC countries - Armenia (43 participations and 3.63 million €), Albania (50 and 5.04 million €) and Georgia (58 and 7.4 million €). In other words, in absolute terms, AC EUSDR countries have a higher participation in Horizon 2020 than AC&CC (Graph 4).

Graph 4 EC contribution (€) and participation in Horizon 2020 (AC EUSDR and AC&CC)

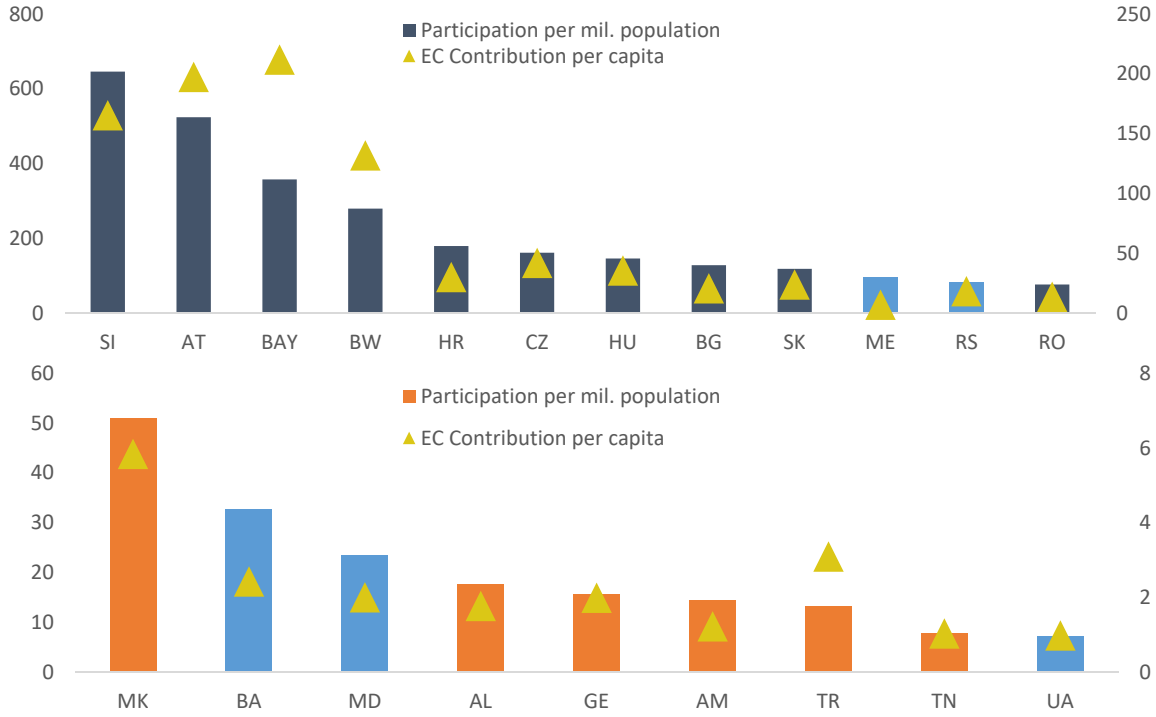


Source: E-corda database accessed on 17 December 2020, adopted by the authors

However, such a comparison does not consider the size of the countries nor their research and innovation development level. In addition, it is natural that researchers from outside the EU have specific conditions if they wish to participate in Horizon 2020 projects. Therefore, we compared the participation of the EUSDR and AC&CC countries in terms of population. Based on this kind of comparison, the highest participation rate per 1 million inhabitants is held by Slovenia (646), Austria (524) and Bavaria (357). These countries also have the highest EC contribution per capita - Bavaria (212€), Austria (197€) and Slovenia (165€). On the contrary, Ukraine trails other countries with 7.31 participations per 1 million inhabitants, followed by Tunisia (7.77) and Armenia (14.53). The same situation is in the amount of the EC contribution per capita - Ukraine - 0.99€, Tunisia 1.04€ and Armenia 1.23€. This comparison is clearly dominated by EU Member States. The only non-member countries that are faring better than a Member State are Montenegro and Serbia (Graph 5).

It is also clear from this comparison that AC EUSDR countries (except for Ukraine) have better participation numbers in Horizon 2020 than AC&CC countries. On the contrary, the most successful country among the AC&CC is North Macedonia. Significant differences can be seen especially in the amount of the EC's financial contribution, where AC EUSDR and AC&CC (except for Serbia) lag significantly behind EU Member States. For a better overview of the EC contribution per capita and participation per million population in Horizon 2020 in AC EUSDR and AC&CC please refer to the Graph 5 below.

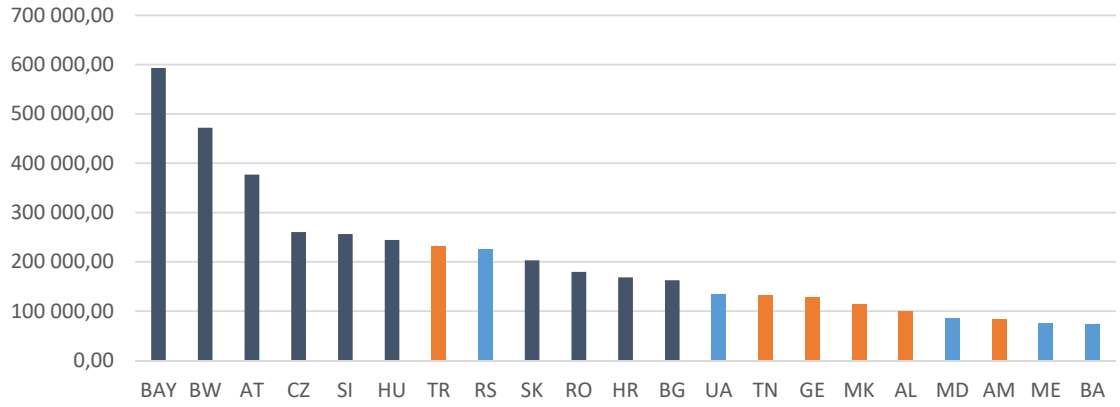
Graph 5 EC contribution per capita and participation per mil. population in Horizon 2020 (AC EUSDR and AC&CC)



Source: E-corda database accessed on 17 December 2020; Eurostat 2020, adopted by the authors

The amount of the received EC contribution is primarily influenced by the wage levels in individual countries, but also by the role that individual institutions play in projects. Since only real staff costs can be reimbursed in projects, countries with lower research salaries also receive lower EC contributions. Furthermore, some institutions play only a marginal role in projects and thus receive a smaller contribution. A comparison of the average EC contribution shows a disproportion between the compared countries. Bavaria has almost 8 times the contribution of Bosnia and Herzegovina. This disproportion can also be seen within the EU countries, especially between the EU-15 and EU-13 countries. The only non-EU countries with a comparable EC contribution are Turkey (233 116€) and Serbia (226 347€), which have overtaken 4 EU Member States. Bosnia and Herzegovina, Montenegro, Armenia, and Moldova have received the smallest contribution for one participation. Based on this comparison, AC&CC countries fare slightly better than AC EUSDR. The position of Ukraine is interesting – in other rankings it is usually at the tail. However, on average it receives 134 909 € per participation. This could mean that although Ukrainian research institutions play a significant role in projects they participate in (Graph 6).

Graph 6 EC contribution (€) per participation



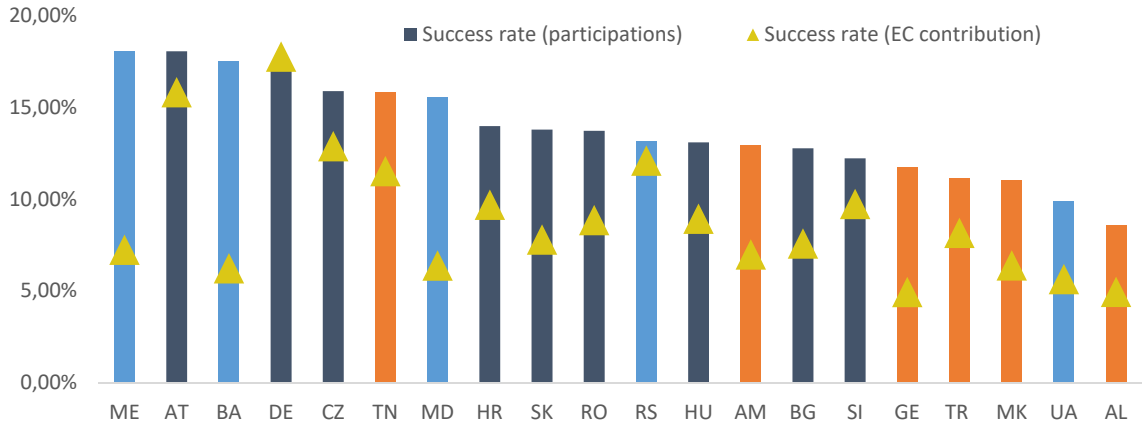
Source: E-corda database accessed on 17 December 2020, adopted by the authors

There is a significant difference between countries in the comparison of success in obtaining projects. Among the countries compared, Montenegro (18.09%) is the most successful in obtaining projects, followed by Austria (18.06%) and Bosnia and Herzegovina (17.52%). By contrast, Albania (8.56%), Ukraine (9.88%) and North Macedonia (11.01%) have the lowest success rates. The comparison shows that the AC&CC countries have a lower success rate than the AC EUSDR countries (except for Tunisia and Ukraine).

However, if we compare the success[3] rates in obtaining the EC contribution, the EU member states are significantly more successful. This comparison is important mainly because it provides insight into the extent of how much of requested EC contribution countries receive. In other words, we can see what the difference between "desire" and "profit" is. While in Germany this success rate is 17.76%, in Georgia and Albania it is 4.94%. There are only five countries that have reached the 10% success rate Germany, Austria, Czechia, Serbia, and Tunisia. Serbia, Tunisia, and Turkey are also the only AC EUSDR and AC&CC countries to be more successful than some Member States (Graph 7).

[3] Success rate is the proportion of the application in Retained proposals from a country compare to application in Eligible proposals. In terms of EC contribution it is the proportion of the EU Financial Contribution in Retained Proposals to Applications compare to the EU Financial Contribution in Eligible Proposals to Applications.

Graph 7 Success rate in Horizon 2020



Source: E-corda database accessed on 17 December 2020, adopted by the authors

In tables 2 and 3 we provide an overview of the cooperation between the DR. The countries of the region most often cooperate with institutions from Germany, which is natural, since Germany participates in the highest number of projects in Horizon 2020. Germany is followed by Austria, which is again of no surprise given the number of Austrian projects. It is interesting to see, with which other states countries cooperate the most. Austria cooperates with the Czechia, Slovenia, and Hungary. Bulgaria works mostly with Romania and Hungary. Czech(ia) partners with Hungary and Slovenia. Croatia has most connections with Slovenia and Romania. Hungary cooperates mostly with the Czechia and Romania. Romania participates mostly with Hungary and Slovenia. Slovenia has most partnerships with the Czechia and Romania. Slovakia cooperates with the Czechia and Hungary. Montenegro partners with Serbia and Slovenia. Serbia has most connections with Slovenia and Hungary. Bosnia and Herzegovina work mostly with Croatia and Serbia. Moldova's top partners are Romania and Hungary. Finally, Ukraine cooperates mostly with Czechia and Romania.

This comparison shows that there is a higher rate of cooperation among countries that share a common historical experience (Czechia - Slovakia; countries of the former Yugoslavia, Romania - Moldova) or share a common border.

We also compared the cooperation of AC EUSDR and AC&CC countries with EU Member States and other countries. Of the 11 countries compared, five cooperate in projects mostly with institutions from Spain. Two work mainly with institutions from France, two with institutions from Germany and two with institutions Italy. This is a rather interesting finding, since (except for Tunisia) these are the countries of Eastern Europe and the Balkans. Therefore, we had assumed that countries cooperate mostly with institutions from Germany or Italy. Apart from the cooperation with the TOP 4 countries, Greece is also worth mentioning – institutions from Montenegro and North Macedonia often cooperate with their Greek counterparts.

Project co-funded by European Union Funds (ERDF, IPA)

Table 2 Cooperation among the DR countries

	AT	DE	BG	CZ	HR	HU	RO	SI	SK	ME	RS	BA	MD	UA
AT	3 502	**12 594**	435	1 306	500	866	789	911	537	23	263	48	26	116
DE	**12 594**	27 442	1 389	3 927	1 109	3 092	2 369	2 285	1 258	51	730	115	65	487
BG	435	**1 389**	1 056	251	226	284	395	289	153	33	129	26	26	79
CZ	1 306	**3 927**	251	684	238	561	431	457	426	11	117	15	24	157
HR	500	**1 109**	226	238	453	241	274	335	155	33	138	43	24	70
HU	866	**3 092**	284	561	241	618	441	422	253	19	150	21	28	135
RO	789	**2 369**	395	431	274	441	1 203	439	205	33	138	26	57	149
SI	911	**2 285**	289	457	335	422	439	754	196	36	179	32	21	83
SK	537	**1 258**	153	426	155	253	205	196	274	9	49	12	16	65
ME	23	**51**	33	11	33	19	33	36	9	36	53	16	12	5
RS	263	**730**	129	117	138	150	138	179	49	53	311	48	17	29
BA	48	**115**	26	15	43	21	26	32	12	16	48	112	5	6
MD	26	**65**	26	24	24	28	57	21	16	12	17	5	27	26
UA	116	**487**	79	157	70	135	149	83	65	5	29	6	26	189

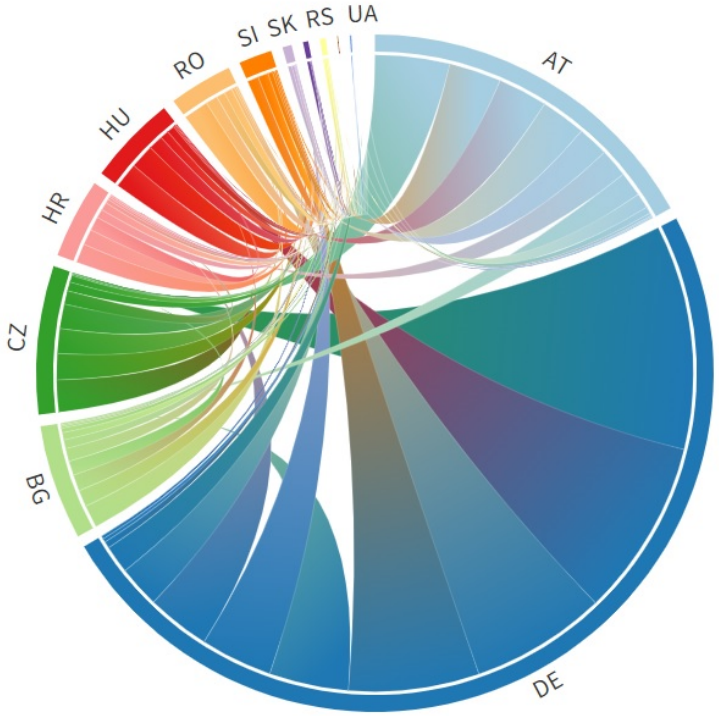
Source: E-corda database accessed on 17 December 2020

Table 3 Cooperation of AC EUSDR and AC&CC beyond the macro-region

	AT	BE	DE	DK	EL	ES	FI	FR	IE	IT	LU	NL	PT	SE	UK	BG	CY	CZ	EE	HR	HU	LT	LV	MT	PL	RO	SI	SK	AL	ME	MK	RS	TR	AM	BA	CH	FO	GE	IL	IS	MD	NO	TN	UA
AL	30	53	57	15	51	70	13	52	20	**74**	10	42	25	15	42	34	22	15	17	19	27	12	13	10	25	32	19	11	5	16	22	27	18	8	15	14	2	8	23	4	10	10	2	8
ME	23	33	51	17	66	**91**	11	51	18	66	14	31	48	11	46	33	18	11	12	33	19	10	10	8	35	33	36	9	16	36	34	53	15	7	16	12	2	11	12	3	12	17	0	5
MK	64	89	129	48	131	186	38	100	27	**191**	26	89	79	32	102	49	32	44	33	68	35	25	40	10	53	59	96	32	22	34	39	47	40	9	21	39	2	9	25	11	19	43	3	10
RS	263	429	730	156	527	**839**	177	574	160	826	48	426	237	141	534	129	77	117	60	138	150	58	46	25	201	138	179	49	27	53	47	311	59	11	48	184	2	26	59	20	17	108	3	29
TR	690	788	1753	243	653	**2204**	449	1300	234	1772	101	897	490	569	1153	138	98	184	112	98	170	85	96	37	325	228	239	89	18	15	40	59	698	10	12	289	4	28	167	72	23	347	33	48
AM	29	18	38	8	31	22	6	**41**	12	33	10	29	17	6	30	17	11	19	8	16	13	7	12	6	24	15	10	8	8	7	9	11	10	8	4	16	0	22	19	3	13	5	0	12
BA	48	46	**115**	20	60	79	18	64	21	110	10	51	33	13	64	26	16	15	5	43	21	7	7	8	22	26	32	12	15	16	21	48	12	4	112	12	2	7	14	5	5	11	3	6
GE	36	53	**85**	20	45	62	20	53	37	74	11	36	33	13	61	23	13	23	18	19	17	10	16	10	41	30	18	12	8	11	9	26	28	22	7	19	0	8	14	4	19	21	1	21
MD	26	54	65	16	61	**82**	26	70	25	80	14	50	48	19	48	26	28	24	22	24	28	20	14	10	28	57	21	16	10	12	19	17	23	13	5	23	2	19	33	9	27	23	5	26
TN	43	57	128	13	72	**176**	30	171	12	142	2	70	56	40	75	9	10	25	7	5	10	7	7	6	21	29	21	3	2	0	3	3	33	0	3	32	0	1	19	2	5	30	31	2
UA	116	233	487	61	204	445	236	**653**	56	414	31	184	153	119	231	79	46	157	39	70	135	66	45	11	201	149	83	65	8	5	10	29	48	12	6	86	0	21	19	23	26	43	2	189

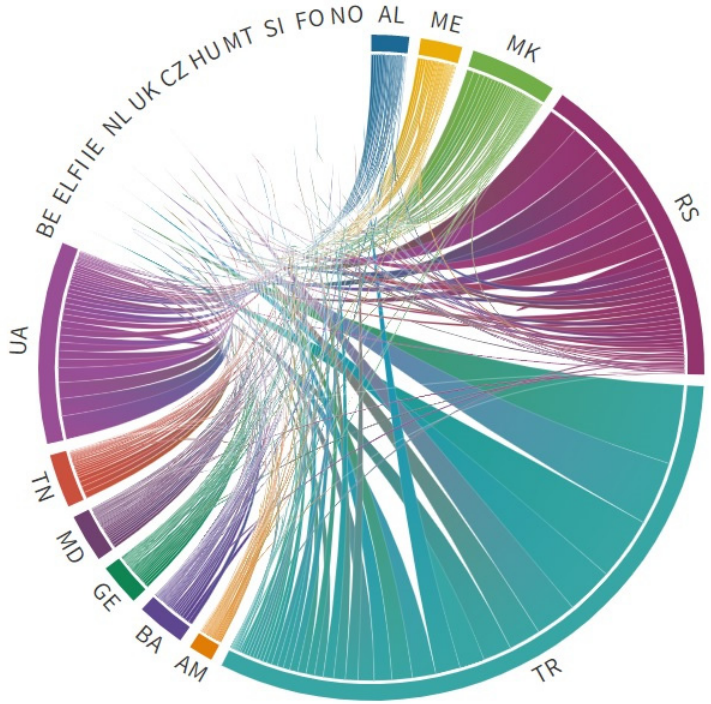
Source: E-corda database accessed on 17 December 2020

Graph 8 Cooperation among the DR countries



Source: E-corda database accessed on 17 December 2020

Graph 9 Cooperation of AC DR and AC&CC beyond the macro-region



Source: E-corda database accessed on 17 December 2020

**Interactive maps are available online at: https://public.flourish.studio/visualisation/5013743/ and https://public.flourish.studio/visualisation/5013773/ (2020)*

3. NATIONAL SYSTEMS: SUPPORT STRUCTURES FOR HORIZON 2020 IN DR COUNTRIES

The system of support for participation in Horizon 2020 projects is implemented in each country primarily through national contact points (NCP). The specific structure is determined by each state. The European Commission has set minimum standards that national systems are obliged to meet.[4] NCPs exist in each EU member state, and they are also established in many non-EU and non-associated countries ("third countries"). The main mission of the NCPs is to offer highly professional support services operating nationally.

In general, NCPs offer the following services:

- Guidance on choosing relevant H2020 topics and types of action.
- Advice on administrative procedures and contractual issues.
- Training and assistance on proposal writing.
- Distribution of documentation (forms, guidelines, manuals etc.).
- Assistance in partner search.

Each state approaches the functioning of the NCP differently. On the positive side, all monitored countries have an established NCP structure. EU Member States have established professional structures where a specific institution is responsible for the operation of the NCP. In such cases all NCPs are employees of one institution. In some specific cases, the NCPs may be from another institution or from academia (e.g.: NCP for EURATOM or JRC). However, these NCPs are full-time employees. Depending on the size of the country, an NCP may be a single person responsible for one or more areas.

A clear exception from the monitored countries is Germany, which is mainly related to its size. It has 123 NCPs that are located at multiple agencies. In other countries, the number of NCPs ranges from 10 to 58. When providing professional advice, the level of experience of individual NCPs, which comes also from interaction with NCPs from other areas, is particularly important. Based on this assumption, we identified 8 countries in which more than 50% of all NCPs operate at the same institution as the NCP coordinator (Austria, Czechia, Hungary, Montenegro, Romania, Slovenia, Slovakia, and Turkey). In the case of Austria, Czechia, Hungary, Slovakia and Turkey, there are dedicated agencies or institutions that provide professional support for participants in Horizon 2020. In the case of Romania, Slovenia and Montenegro, NCPs are employees of ministries responsible for research.

In other countries, NCPs are working at a variety of institutions. In most cases, the coordinator is the Ministry responsible for research and development (except for Bosnia and Herzegovina, where the responsibility lies within the Minister of Civil Affairs). Most of the NCPs are in the academic sector (academies of science and universities), followed by various agencies, ministries, associations, chambers, and networks. In some cases, non-profit organizations or even private companies serve as NCPs. In these countries NCPs fulfil their responsibilities alongside other tasks, e.g., working at a

[4] Minimum standards and Guiding principles for setting up systems of National Contact Points (NCP systems) under Horizon 2020. Available online at: https://ec.europa.eu/research/participants/data/support/ncp/h2020-standards-principles_en.pdf.

university, ministries, or in other institutions. Therefore, it is more likely that the services may be of lower quality than when one works as an NCP full-time.

The success in Horizon 2020 correlates with the quality of NCPs services. Countries with a more heterogeneous system have a lower success rate. The preferred approach seems to be that which is present in Austria, Czechia, and Slovakia. In these countries, all NCPs are in one agency, which allows them to interact more and learn from each other. At the same time, such model enables a more strategic approach to the promotion of Horizon 2020, as well as support for those interested in the programme and better representation. Finally, in case of smaller countries it is possible for NCPs to cover more areas (this is also the case in Slovakia). We can consider this approach to be more strategic, but also more expensive.

Other countries have networks of NCPs working in different institutions. One of the advantages of such an approach is the higher expertise of an NCP in a particular area. On the other hand, people from academia or ministries may not have the work of the NCP as a top priority since they have their own jobs with specific responsibilities. Moreover, NCPs at academia face a potential conflict of interest and there is a risk that one prefers their own institution over others. Finally, such systems present a problem in managing the entire support process.

In some countries (e.g., Northern Europe), NCPs are part of grant agencies (this is also the case in Austria). In such agencies, NCPs do not have to solely work on these tasks full-time – they can be employees who are responsible for a specific area of funding at the national level (e.g., nanotechnology) and are also NCPs in this area. Thus, such employees combine knowledge in this area from the national level (stakeholders, funding, etc.) with the general awareness of opportunities from the European level.

Based on the experience from this comparison, we consider it more appropriate to create a system of dedicated NCPs with one management structure, which operate on one institution. The work of the NCP is more about administrative support in writing and submitting projects, promotions and finding collaborations. The NCPs are not required to have a very deep knowledge of specific scientific fields, although graduating from the same or a related field can only be an advantage.

Table 4 NCP in EUSDR and AC&CC

Country	Coordinator´s institution	Dedicated NCP institution	Number of NCPs	NCPs at NCP coordinator´s institution	Agency	Ministry	University/Research institution	Regions	Asssociations/ Chambers/Network	Others	Private Company
AL	Ministry of Education, Sport and Youth; National Agency of Scientific Research and Innovation		30	9	13	2	14			1	
AM	National Academy of Sciences of Armenia		22	2	3		19				
AT	Austrian Research Promotion Agency	Austrian Research Promotion Agency	22	20	20	1	1				
BA	Ministry of Civil Affairs		12	1	2	1	8		1		
BG	Ministry of Education and Science		58	6	3	20	16	8	8	2	
CZ	Technology Centre ASCR	Technology Centre ASCR	19	19							
DE	DLR Projektträger (DLR-PT)		123	55	122	1					
GE	Ministry of Education, Science, Culture and Sport of Georgia		14	2	5	4	3		1	1	
HR	Agency for Mobility and EU Programmes; Ministry of Science and Education of the Republic of Croatia		19	4	13	5	1				
HU	National Research, Development and Innovation Office	National Research, Development and Innovation Office	18	13	13	1	4				
MD	National Agency for Research and Development	National Agency for Research and Development	20	8	8	1	6		2	1	2
ME	Ministry of Science		10	7	2	9					
MK	Ministry of Education and Science		20	6		6	11		3		
RO	MCI - Ministry of Research and Innovation		36	21	2	21	13				
RS	Ministry of Education, Science and Technological Development		21	9	3	11	6		1		
SI	Ministry of Education, Science and Sport	Ministry of Education, Science and Sport	21	15	1	19			1		
SK	Slovak Centre of Scientific and Technical Information	Slovak Centre of Scientific and Technical Information	14	13	14						
TN	Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (MESRS)		20	3	2	3	13		2		
TR	TÜBİTAK	TÜBİTAK	39	28	29	8			2		
UA	Ministry of Education and Science of Ukraine		36	2	3	2	31				
Total			**574**	**243**	**258**	**115**	**146**	**8**	**21**	**5**	**2**

Source: European Commission, 2020. Available online at: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp

4. SURVEY: INFORMATION ON THE SURVEY REALIZED IN EUSDR COUNTRIES

Within the EUSDR PA7, the Slovak coordinator, the Ministry of Education, Science, Research and Sport carried out two questionnaire surveys in the EUSDR. One was aimed at policymakers and the other for participants in projects. Both surveys were open from 1 September 2020 until 15 November 2020.

4.1. Survey for Policymakers

This survey was focused on the definition of the strengths and gaps in terms of participation of researchers from countries (regions) in Horizon 2020. The results of this survey provided us with information on both strengths in the national management of the programme, as well as gaps, in terms of missed opportunities, policy shortcomings, national/regional support mechanisms for applicants, etc.

The questionnaire was completed by 14 participants from 11 countries (2 participants from Austria, Serbia, and Slovakia) and no participants from Moldova, Montenegro, and Hungary. 9 participants represent national (or regional) ministries, 3 different agencies, 1 NGO and 1 is a regulatory authority.

Ministries responsible for Research and Innovation and Horizon 2020

EUSDR states have different systems for management of research and innovation. In most cases, there is a ministry responsible for education and research. In most countries, responsibilities for management of R&I are divided between two or more ministries. One of the ministries is responsible for research (usually the Ministry of Education) and the other for innovation (usually the Ministry of Economy). In some states there are also ministries responsible for energy or digitization. Subsequently, the implementation of the policies is the responsibility of various implementing agencies or funds. In Czechia, there are 15 budgetary chapters in public funding. The main responsibility lies with the Research, Development and Innovation Council and Ministry of Education, Youth and Sports of the Czech Republic.

Ministries responsible for research are usually also responsible for the implementation of Horizon 2020. In some states, there are agencies responsible for NCPs. In Romania, there is also support at the regional level through the Regional Development Agencies. In Bulgaria, the responsible state body is State Agency for research and innovation. As it was mentioned in previous chapter, in some countries (Austria, Czechia, Slovakia), there are ministries responsible for policy (national delegates) and agencies contracted as Horizon 2020 National Contact Point Organizations that host thematic NCPs (implementation, support, spreading the information). These agencies cooperate closely with the stakeholders (universities, academia, companies, etc.).

Support for Applicants in Horizon 2020

National contact points usually offer several services for the applicants in their countries. As it was already mentioned, European Commission has set minimum standards that national contact points are obliged to meet. NCP in countries usually offer the following services:

- Trainings
- Webinars
- Proposal checks
- Information days
- Consultancy
- Assistance on writing of proposals
- Partner search.

Furthermore, some countries provide additional support for applicant. Bosnia and Hercegovina provides small grants to cover the costs of preparing application up to 15,000€, microgrants are offered also in Croatia and Slovakia. Some of the countries have also established liaison offices in Brussels. These offices offer premises for meetings or workshops and promote national research. NCPs do not participate in the preparation of the project; they only offer consultancy services. Some countries support the participation in Horizon 2020 by co-funding those instruments that require direct financial engagement of Member States. Some countries fund the Seal of Excellence scheme to finance those projects that are not funded by the European Commission but are evaluated above the threshold.

The DR countries have low numbers when it comes to participation in Horizon 2020. Experts from the DR countries identified mainly these reasons for this current state:

- Complex structure of the programme.
- Lack of structured information on the programme.
- Lack of experience with writing a project.
- Insufficient administrative capacities.
- Insufficient research capacities and excellence.
- Fragmentation of national research and innovation systems.
- Very low success rates that can demotivate potential participants.
- Lower national funding of research and innovation in majority of EUSDR countries.
- Less advanced national Horizon 2020 support strategies.
- Internal management of research institutions.
- Lack of connections with the leading European research institutions.

Experts consider excellence as the most important element of Horizon 2020. In their answers, the experts also mentioned mobility of researchers and societal challenges. New member states and non-EU countries mentioned mainly widening participation and international cooperation as the most important elements.

Some of the EUSDR countries regularly monitor their participation in Horizon 2020. However, each country has different systems of monitoring. Data from E-corda is usually used in performance reports. In some countries there are no national evaluations.

Box 1 – Austrian national system for collecting data on participation in Horizon 2020

The Austrian Research Promotion Agency (FFG) has a dedicated monitoring contract with the federal ministry. They provide regular reports on participation and an online platform.

1. *The Austrian Performance Monitor | Statistics and Analyses of Austrian participation in EU research programmes.*

The EU Performance Monitoring tool is designed to collect, analyse, and communicate data about the participation of Austrian organisations (primarily companies, research, and academic institutions) in EU programmes for research and innovation. It provides data, statistics, reports, and analyses informing the public about the achievements of Austrian researchers, companies, and institutes in the relevant EU programmes. Austrian ministries, intermediary organisations, delegates, research managers and other stakeholders are also supported in their work through up-to-date statistics and detailed analyses. These data and analyses enable: - continuous monitoring of Austrian performance in the EU research programmes - comparisons with other countries (international position) - comparisons between Austrian provinces - analysis of strengths and weaknesses (e.g. according to topics, organisations, sectors) - support in strategy and policy decisions EU Performance Monitoring for RTI is carried out on behalf of the Federal Government For more information: https://www.ffg.at/en/monitoring

2. *FFG EU-Performance Monitor | Online Database*

The public online portal EU-Performance Monitor shows figures regarding the participation in the EU-Framework Programme for Research, Technology, and Innovation. You can adapt reports to match your interests and download the data. You can have a look at the numbers of project participations, funding or coordinators for individual programmes or selected countries. For more information: https://eupm.ffg.at/ui/login

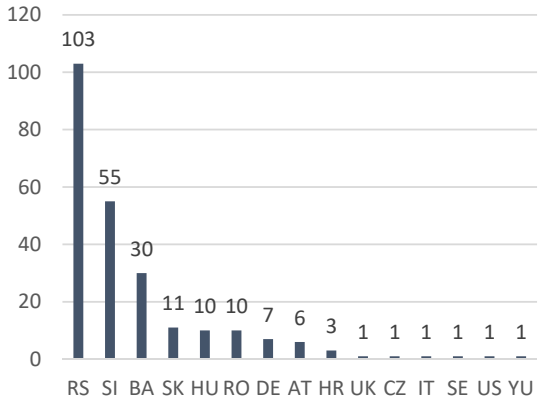
Horizon 2020 is also partially reflected in national research and innovation strategies and policies, with some exceptions (Slovakia, Ukraine), which do not reflect the Programme in their policies. The same could be said about (not) creating synergies between national schemes and Horizon 2020.

There are still many uncertainties in terms of synergies between framework programmes and cohesion policy funds. This is a crucial topic mainly for EU13 countries + accession countries. To fully use the potential of synergies states could combine funding for the infrastructure (structural funds) and for running of the project (framework programmes). Other synergies could be found in Seal of Excellence that could be used in MSCA, ERC or EIC programmes.

4.2. Survey on Horizon 2020 Participation

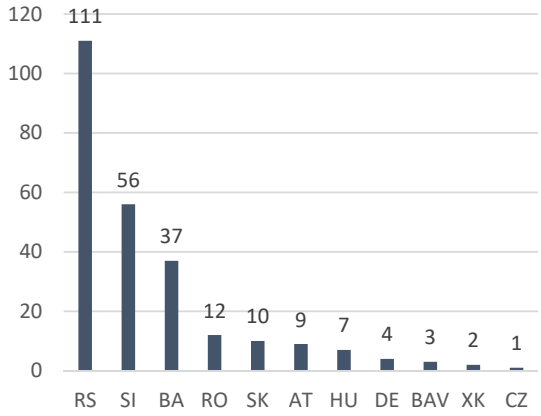
The second questionnaire was focused on mapping the motives and barriers of researchers from the EUSDR countries and their regions (not) to participate in the Horizon 2020. The questionnaire consists of 19 questions. We have received 259 responses from 11 countries. More than half of the responses come from two countries – Serbia and Slovenia, which limit the analysis of the answers.

Graph 10 Nationality of participants



Number of responses: 237

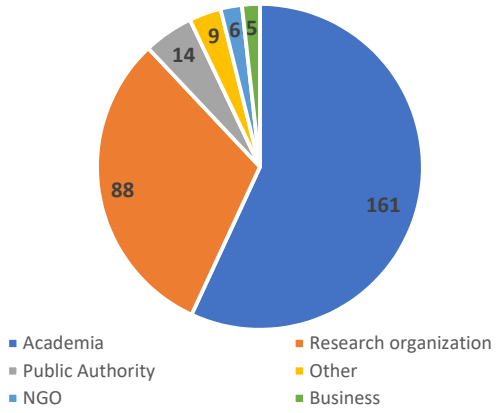
Graph 11 Country of the Organization



Number of responses: 254

Most participants represent Academia and Research organizations. Only 5 participants represent the Business sector. 45% of participants have received support from Horizon 2020.

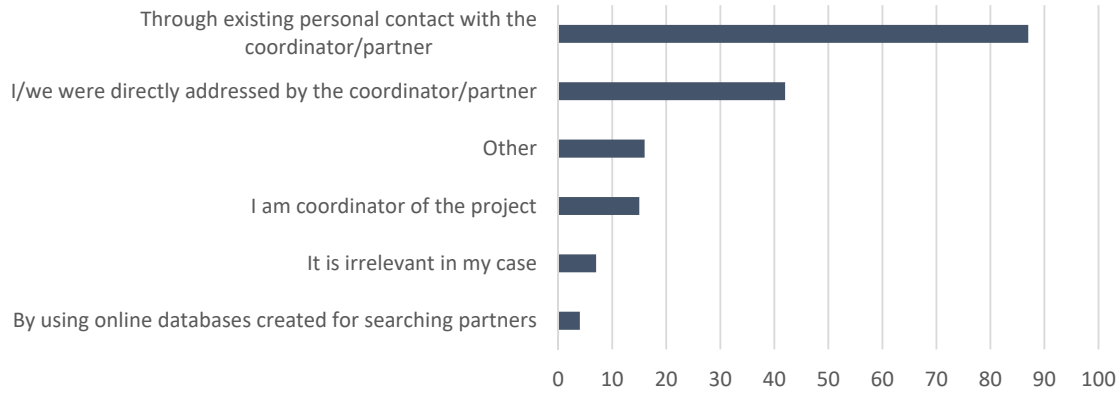
Graph 12 Type of organization



Number of responses: 258

117 out of 259 participants indicated that they received support from Horizon 2020. The most natural way how they become part of the consortium was through existing personal contact either with the coordinator or with one of the partners. 42 participants were directly contacted by the coordinator or other partners in the project. Only 15 respondents were coordinators of a Horizon 2020 project. The questionnaire confirmed that the most successful way to obtain a Horizon 2020 project is to use existing contacts. Participants were not so successful in searching for new partners.

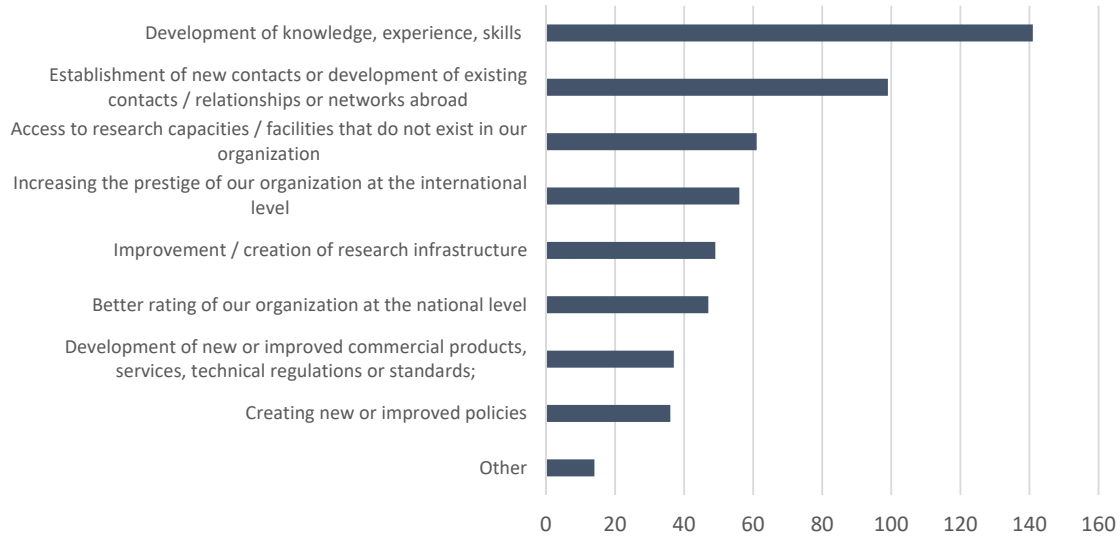
Graph 13 How did you become a part of the consortium?



Number of responses: 125

For 141 participants, development of knowledge, experience, and skills were the main reason to participate in Horizon 2020. The second important reason was to establish new contacts, relationships, or networks abroad (99). Creating new or improving existing policies was important only for 36 participants.

Graph 14 What were the main reasons for your participation in Horizon 2020?



Number of responses: 167

There are several main reasons, why respondents decided to participate in Horizon 2020. One area is funding. Horizon 2020 offers schemes that are easy to implement. Other important reason is 100% funding in Research and Innovation action in the programme. These projects could also offer additional funding for researchers. Some of the respondents mentioned that Horizon 2020 offers better and more transparent or fair funding.

Second important area is international cooperation, which means access to international networks and better visibility for the participants. The third crucial area is development of knowledge, experience, and skills. In the questionnaire, the respondents also acknowledge that the programme is more flexible and has a more coherent environment. The timeline of the calls for proposals is predictable. Therefore, there is enough time to prepare proposals.

Graph 15 What were the main expected benefits of participating in Horizon 2020 compared to national and/or regional research and innovation programmes?

Number of responses: 144

The most important measure that would help organizations increase their participation in Horizon 2020 or Horizon Europe is the professional advice on developing project proposals (140 participants). Having a financial support mechanism before submitting a project proposal is crucial for 131 participants. Match-making activities would be helpful for 102 participants. The same number of participants indicated that a call which would result in preparation of a Horizon 2020/Europe project would be useful.

Project co-funded by European Union Funds (ERDF, IPA)

Graph 16 Which of the following measures would help your organization increase its participation in the EU Framework Programmes for Research and Innovation (Horizon 2020 and Horizon Europe)?

Number of responses: 234

The most valuable way how participants in the questionnaire receive the information about Horizon 2020 is via their own contacts. The second important stream of information are national contact points for Horizon 2020 and the third are partners from previous projects.

Graph 17 Where did you get the most valuable information about Horizon 2020 from?

Number of responses: 233

The next three questions were only for respondents from institutions that are established in non-EU countries. They were asked to what extent do they agree with the 3 statements (Graphs 18 – 20) when 1=agree and 5=disagree.

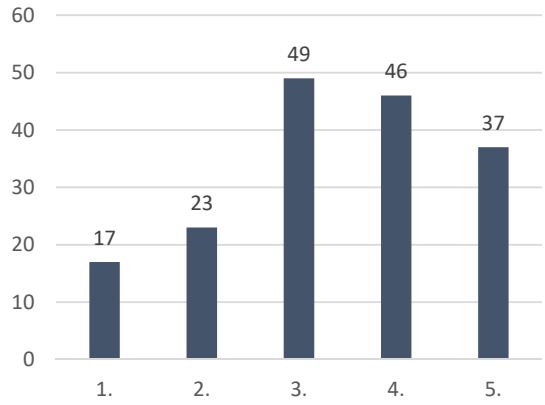
17 participants agree that the communication activities on Horizon 2020 in their country helped them find out the information about the programme. On the other side, 37 participants disagree with this

statement. 49 participants had a neutral opinion. Only 40 participants rather agree (mark 1 and 2) in contrast with 83 participants that rather disagree (mark 4 and 5). Here we can see that for almost 50% of respondents the communication activities at national level are not helpful.

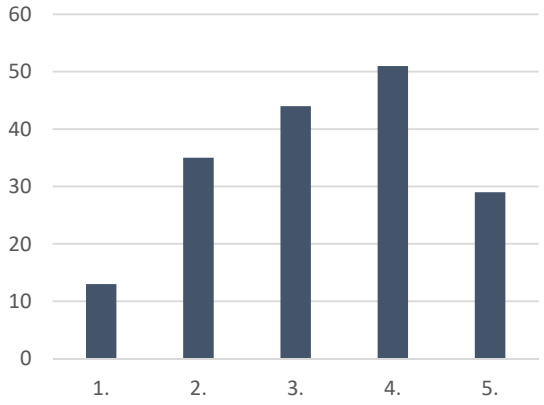
Only 13 participants perceived it easy to find calls that were relevant, while 29 participants disagreed with this statement. When we compare participants that rather agree (48) with those, who rather disagree (80) we can see that for most respondents it is not so easy to find a relevant call for proposals.

84 participants rather disagree with the statement that it was easy to find calls for proposals that encourage the participation of non-EU country partners. Only 34 respondents perceived it was rather easy to find these kinds of calls. 54 participants had a neutral opinion.

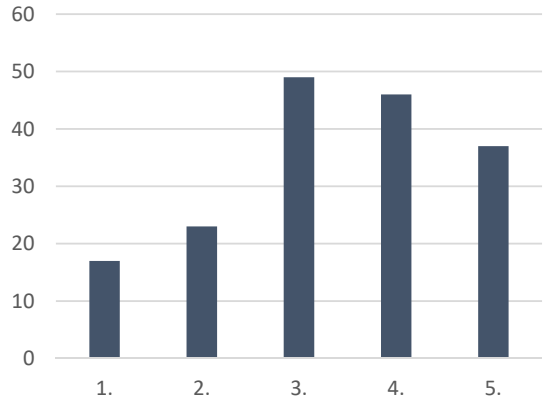
Graph 18 Communication activities on Horizon 2020 in my country have helped me find out the information about the programme



Graph 19 It was easy to find calls that were relevant to my area



Graph 20 It was easy to find calls that encourage participation of non-EU country partners



Number of responses: 172

Respondents mentioned four main reasons for not participating in Horizon 2020 in the questionnaire. The most important reason was limited financial and/or human resources to prepare a proposal (88). The

second important issue are the difficulties to find project partners (85). Other issue that was stress out is very low success rate in Horizon 2020 (83) and the last reason was, that the programme lacks a relevant area or topic for their needs (81). These four areas represent the usual obstacles for new member states but also for associated countries. Preparation of the proposal requires time and financial resources; therefore, it is not so easy for smaller institutions or for the institutions without a dedicated project department to prepare a competitive project. The participants from new member states and from associated countries also face a problem to find a competitive consortium. They are not part of international networks and they also face the problem with so-called "closed clubs" of very competitive institutions from EU15. The success rate in Horizon 2020 is around 14%, in some calls it is even lower. This also demotivates possible participants from investing time and funds for preparing a project.

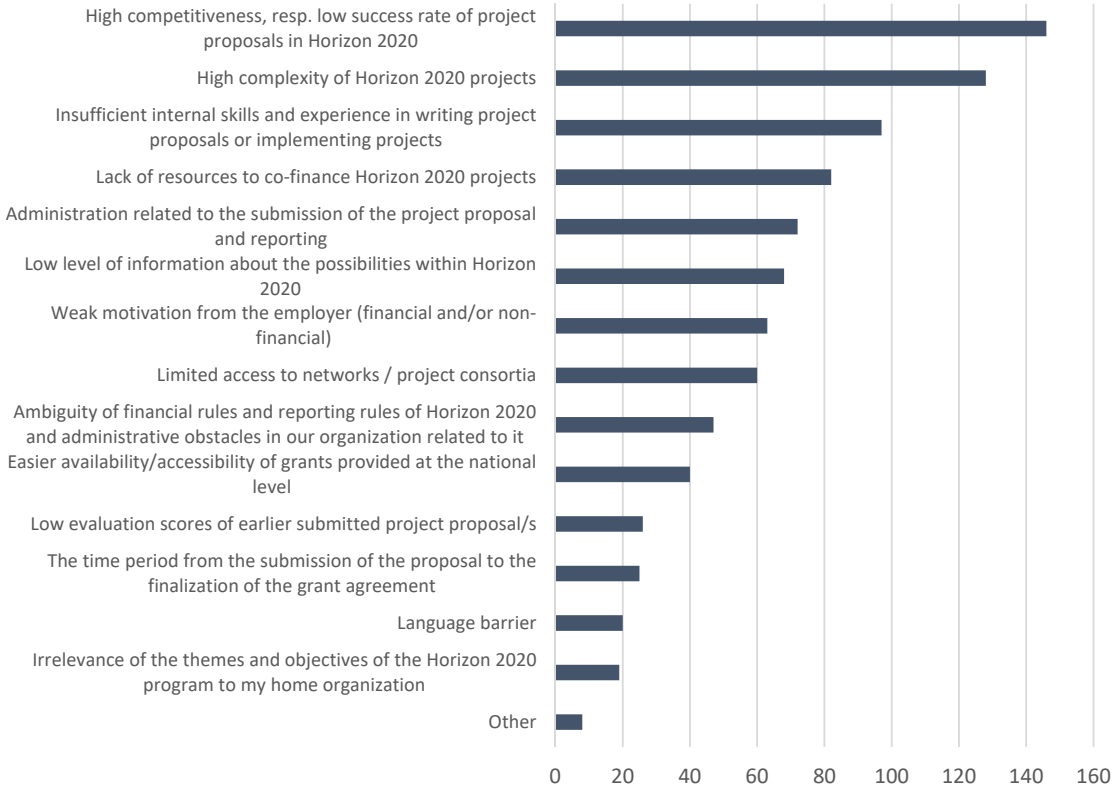
Graph 21 What are your main reasons for not participating in Horizon 2020?

Number of responses: 201

High competitiveness and low success rate are the main obstacles to higher participation in Horizon 2020 for most participants (146). Another significant obstacle was the high complexity of Horizon 2020 project (128) and insufficient internal skills and experience in writing project proposals or implementing the project (97). Interesting finding is that a language barrier is not an obstacle for most of the participants. As we mentioned previously, the low success rate demotivates participants from the EUSDR countries. The same could be said about the competitiveness, when only best of the best from the EU or associated countries succeed.

Project co-funded by European Union Funds (ERDF, IPA)

Graph 22 What do you consider as the main obstacles to higher participation in Horizon 2020?

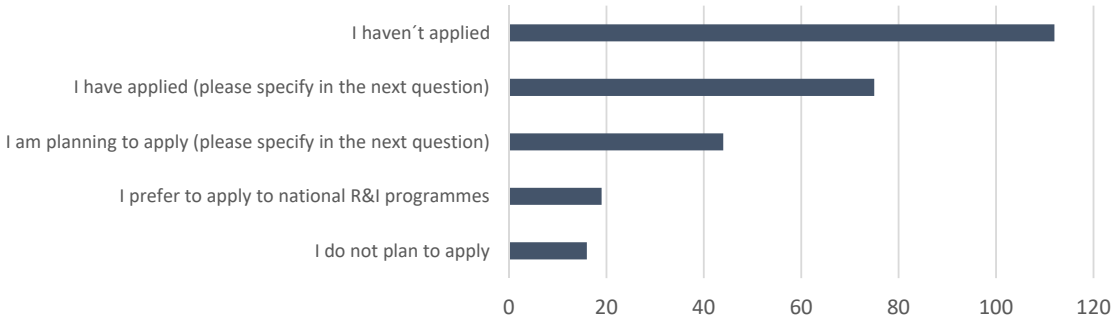


Number of responses: 248

When asked about participation in other EU research and innovation programmes, 112 participants in the questionnaire indicated that they have not participated in any. 75 have already participated, 44 are planning to participate, 19 prefer to participate in national programmes and 16 do not plan to apply for any calls.

23 participants either have applied or plan to apply in Erasmus+, 11 in Interreg projects, 7 in COST and 4 in Life+. Some of the participants applied for specific calls of Danube Transnational Programme.

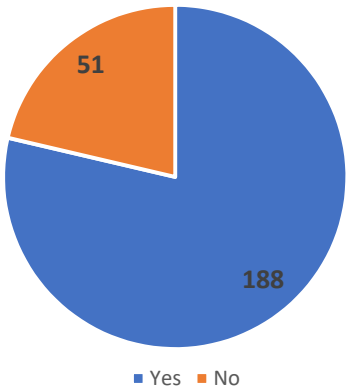
Graph 23 Have you applied for other R&I related EU programmes?



Number of responses: 242

188 of the participants in the questionnaire plan to participate in Horizon Europe or another research and innovation related program. When asked about a concrete topic or part of the programme, most respondents would like to participate in Horizon Europe Cluster 6 – Food, natural resources, agriculture, and environment (70) and Marie Skłodowska Curie Actions (70). Respondents are eager to participate in three other parts of HORIZON 2020: Cluster 5 – Climate, Energy and Mobility (65), European Research Council (64) and Cluster 4 – Digital, Industry and Space (56). Only two participants would like to participate in European Innovation Council. The reason is probably that the respondents came mainly from the academia.

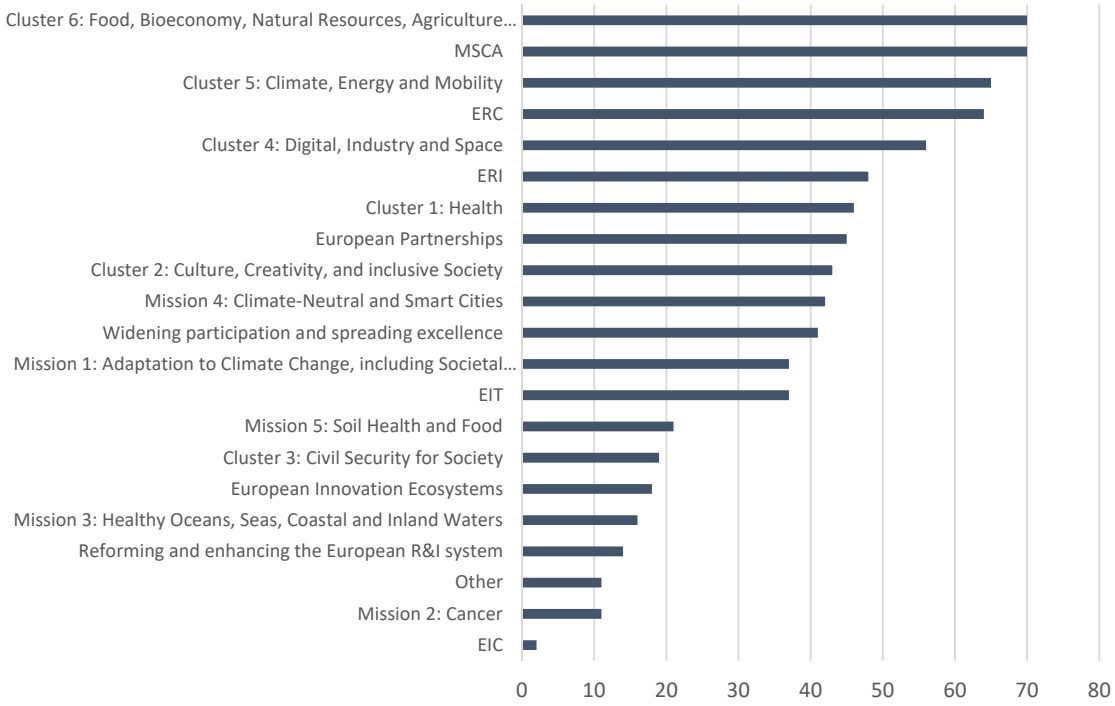
Graph 24 Are you planning to apply for Horizon Europe or another R&I related programme?



Number of responses: 239

Project co-funded by European Union Funds (ERDF, IPA)

Graph 25 What topics/areas of the new Horizon Europe programme are you potentially interested in the most?



Number of responses: 243

Project co-funded by European Union Funds (ERDF, IPA)

5. SUMMARY

Participation in Horizon 2020

In terms of participation in Horizon 2020, we can observe notable differences between the DR countries. Based on their performance, we can divide the countries into four groups[5]:

1. High participation countries – Slovenia, Austria, Bayern and Baden-Württemberg,
2. Average participation countries – Croatia, Czechia, Hungary Bulgaria, Slovakia,
3. Low participation countries – Montenegro, Serbia, Romania,
4. Very low participation countries – Bosnia and Hercegovina, Moldova, Ukraine

The highest participation rate per 1 million inhabitants is held by Slovenia (646), Austria (524) and Bavaria (357). On the contrary, Ukraine trails other countries with 7.31 participations per 1 million inhabitants. From this point of the view it is clear that non-EU countries lag significantly behind those EU member states, that score below average within the EU. There may be several reasons for such results, including the fact that it is much more difficult for a non-member country to take part in Horizon 2020. There are also considerable differences in the average EC contribution per participation. Bavaria has almost 8 times the contribution of Bosnia and Herzegovina. There is also a significant difference between countries in the comparison of success in obtaining projects.

There is a noteworthy difference between countries in the comparison of success in obtaining projects. Among the countries compared, Montenegro (18.09%) is the most successful in obtaining projects, followed by Austria (18.06%) and Bosnia and Herzegovina (17.52%). By contrast, Albania (8.56%), Ukraine (9.88%) and North Macedonia (11.01%) have the lowest success rates.

The comparison of cooperation among countries shows that there is a higher rate of cooperation among countries that share a common historical experience (Czechia - Slovakia; countries of the former Yugoslavia, Romania - Moldova) or share a common border.

Support for Applicants

DR states have different systems for management of research and innovation. In most cases, there is a ministry responsible for education and research. In most countries, responsibilities for management of R&I are divided between two or more ministries. One of the ministries is responsible for research (usually the Ministry of Education) and the other for innovation (usually the Ministry of Economy). Ministries responsible for research are usually also responsible for the implementation of Horizon 2020.

Each state approaches the functioning of the NCP differently. On the positive side, all monitored countries have an established NCP structure. Some of the EU Member States have established professional structures where a specific institution is responsible for the operation of the NCP. In such cases all NCPs are full-time employees of one institution. Depending on the size of the country, an NCP

[5] The criteria of the division according to the performance are as follows:
1. High participation countries – participation per mil. population in H2020 is higher than 125% of the average in the EUSDR
2. Average participation countries – participation is between 75%-124,99% of the average
3. Low participation countries – participation is between 25%-74,99% of the average
4. Very low participation countries – participation is lower than 25% of the average

may be a single person responsible for one or more areas. In some countries, NCPs are working at a variety of institutions. In most cases, the coordinator is the Ministry responsible for research and development. Most of the NCPs are in the academic sector, followed by various agencies, ministries, associations, chambers and networks.

National contact points usually offer several services for the applicants in their countries, mainly: training, webinars, proposal checks, information days, consultancy, assistance on writing of proposals and search for partners. Some countries also provide small grants to cover the costs of preparing an application.

The success in Horizon 2020 correlates with the quality of NCPs' services. Countries with a more heterogeneous system have a lower success rate. We consider it more appropriate to create a system of dedicated NCPs with one management structure, which operate in one institution. The work of an NCP is more about administrative support in writing and submitting projects, promotions and finding collaborations. The NCPs are not required to have a very deep knowledge of specific scientific fields, although graduating from the same or a related field can only be an advantage.

One of the challenges is the low participation of the EUSDR countries (mainly non-EU countries) in Horizon 2020. Experts identified several reasons, notably the complexity of the programme, lack of information and experience with writing a project, but also insufficient administrative or research capacities.

Experts from the EUSDR countries consider excellence as the most important element of Horizon 2020. They also mentioned mobility of researchers and societal challenges. For the new member states and non-EU countries the most important element is widening participation and international cooperation as the most important elements.

Participants in the survey think that the most important measure which would help organizations increase their participation in Horizon 2020 or Horizon Europe is the professional advice on developing project proposals and having a financial support mechanism before submitting a project proposal.

Almost 50% of respondents answered, that the communication activities at national level are not helpful. Others declared that it is not so easy to find a relevant call for proposals.

In the questionnaire, the respondents mentioned four main reasons for not participating in Horizon 2020: limited financial and/or human resources to prepare a project proposal; the difficulties to find project partners; very low success rate; the programme lacks a relevant area for their needs.

6. RECOMMENDATIONS FOR INCREASING PARTICIPATION

Success rate in the framework programmes can be considered as a performance indicator of the national research and innovation systems. Therefore, this output indicator is a result of different activities conducted at national, EU or macro-regional level. This means that the measures for improving participation in the framework programmes are very wide and should be implemented on different levels. Moreover, having in mind disparities between countries and regions, these measures are very specific for each national economy.

The recommendations in this chapter will be limited on the results of the research conducted in the report and divided into suggestions to the national and EU level policy makers.

Recommendations for national level policy makers

1. Improving individual and institutional capacities in preparing project proposals.
    - Majority of the respondents in the survey for researchers indicated that the most important reason for not participating in Horizon 2020 are limited resources in preparing the proposals and one of the most important obstacles to higher participation are insufficient internal skills and experience in writing project proposals.
    - This means that there is a high demand for trainings for researchers interested in preparing high-quality project proposals. More precisely, explaining how the concrete research ideas/areas/results can be transformed into concrete projects and elaborated in a successful way. The trainings for researchers should be focused on project management skills, finding appropriate calls for projects, understanding submission proces, proposal templates, evaluation processes etc.
    - It would be especially beneficial to involve researchers who were successful in framework programmes in these workshops and also national experts engaged as evaluators in framework programmes (if possible).
2. Establishing a system which would enable that experience and knowledge of national project participants gained in framework programmes is disseminated and used for generating new ideas and proposals (per sectors and thematic areas).
3. Enabling alignment of national strategies and topics of the framework programmes in order to avoid overlapping.
4. Conducting capitalization activities between different projects and programmes.
5. Establishing fair, simple and flexible remuneration system on national, institutional and individual level.

Recommendations for EU level policy makers

1. Projects supported by the EUSDR and Interreg programmes should directed to developing further cooperation, which would motivate participants to apply for other schemes and programmes, especially Horizon Europe, COST, Eureka, and Erasmus+.

2. Projects supported under EUSDR and Interreg programmes should also aim to support and improve the mobility of researchers within the region by motivating and supporting the submission of joint projects through Marie Skłodowska Curie Actions.
3. Creating a scheme that will improve the scope and quality of services offered by the NCPs.
4. Fostering mutual learning and networking among the Danube region countries that will be based on exploring societal challenges and developing project ideas.
5. Increasing motivation of researchers by introducing a remuneration policy that promotes reducing remuneration gaps of participants regardless of the country of origin and the sector. It is necessary to find adequate solutions for reimbursement of personnel costs so as not to demotivate large groups of researchers. It would be useful to specify minimum researchers' hourly rate as an alternative to the present project-based remuneration system.
6. Improving promotion of the FP calls and introduce simple ways for matching potential project partners.
7. Improving the sharing of information among the community and networking of excellent research teams
8. Decreasing administrative burden in the application process and project implementation phase.
9. Creating opportunities for young researchers with modest experience in international cooperation.

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7. SWOT ANALYSIS OF EUSDR IN H2020 (TYPE OF PROJECTS, AREAS OF PARTICIPATION)

STRENGTHS	WEAKNESSES
• Strong position of Germany and Austria in the European Research Area • Professional NCPs structure in some countries • Cooperation among countries in EUSDR projects	• The region is notably disparate • Innovation performance varies widely between countries in the region • Huge differences in participation between countries • Low levels of collaboration in Horizon 2020 • Low number of researchers in most countries • Inadequate research infrastructure in non-EU Member States • Lack of structured information on the programme in some countries • Lack of experience with writing project proposals in some countries
OPPORTUNITIES	**THREATS**
• Increasing investment in research and innovation in most countries in the region • New calls for proposals focusing on Western Balkan in Horizon Europe • Enhancing cooperation between countries in EUSDR	• Insufficient support for research and innovation activities at political level in some countries • Increasing disparities in the quality of research and innovation between countries in the region • Non-EU countries in the Danube region trailing further behind • Low success rate in the framework programmes

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