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## D5.2 FIRST MONITORING AND IMPACT ASSESSMENT REPORT

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Version	Date	Description of change	List of contributor(s)
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## EXECUTIVE SUMMARY

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This deliverable – D5.2 First monitoring and impact assessment report – aims at providing a quantitative and qualitative overview of NGI RIAs and CSAs’ open calls issued as of October 2020 and on possible corrective measures to be undertaken or taken into consideration by the TETRA project with respect to delivering better quality business acceleration services to NGI beneficiaries.

The deliverable first provides a quantitative perspective of the NGI RIAs and CSAs’ open calls by providing metrics on each of the NGI RIAs and CSAs projects.

More specifically, per each NGI project the following information is provided:

- No. of applicants (total of all calls)
- Applicants' countries of origin
- Gender balance - Applicants
- Applicants' organisation type
- Technology domain
- Number of grant winners (total of all calls)
- Grant amount (euro granted per winner)
- Grants amount (total calls)
- Winners' country of origin
- Gender balance – Winners
- Winners' organisation type
- Total amount calls in 2020

Second, a qualitative perspective is provided per each of the NGI RIAs and CSAs projects stemming from bilateral interviews conducted with each NGI project’s coordinator.

More specifically, the following questions are answered:

- Which of the following outcome(s) is your project contributing to?
- Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?
- Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?
- What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5-year time frame?
- How many new jobs could be created thanks to the outcome of your project?
- Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?
- Did you manage to raise any additional funds? If yes, how much and through which funding scheme?
- On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories?

Finally, conclusions for future possible corrective and/or additional measures for the TETRA project are explained in the light of the quantitative and qualitative overviews.



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## CHANGES APPLIED FROM D5.1

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With respect to D5.1 Impact assessment plan, a methodology (Table 1) for collecting quantitative and qualitative data stemming from NGI open calls' funded projects was conceived, with a view to identifying how many and which funded projects were contributing to making the internet:

- More resilient and trustworthy
- More democratic
- More inclusive

Such aspect was being exhaustively covered in the course of the implementation of task 5.2 TETRA Monitoring and adjusting plan and activities, and more specifically in the course of the qualitative interviews (structured in D5.1) conducted with each NGI RIAs and CSAs' coordinator. Where each NGI project was asked first what specific outcome their project was contributing to (see chapter 3), and subsequently asked to explain the reason of their answer.

In the light of the above, the need for a more exhaustive quantitative analysis of the entire NGI initiative emerged (e.g. "how many applicants applied for a specific open call"; what kind of organisations are applying for NGI open calls"; "what kind of organisations succeed in awarding NGI grants").

For this reason, TETRA made use of NGI open calls' metrics online monitoring spreadsheet as basis for such quantitative analysis, prioritizing a consistent monitoring approach between TETRA and the NGI Outreach Office, which is managing the NGI common online cloud drive repository, where the online spreadsheet is stored granting common access to data on all NGI projects.

The NGI open calls' metrics online monitoring spreadsheet served as basis for D5.2 Quantitative overview and offered a centralized monitoring solution, with direct contributions provided by each of the NGI RIAs and CSAs' coordinators/ partners and is a reliable source of information and way to provide a consistent approach and data with the NGI initiative.



# NEXT GENERATION INTERNET

Main outcome monitored	Indicator	Methodology for collecting data	Determining output Evaluation question	Expected target	State of play (Month 18) and corrective measures	State of play (Month 30)
Making Internet more resilient and trustworthy	Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	Feedback from the grantees of the Relevant Projects	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantees addressing sustainability of Internet		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
		Event registration lists		Social network:		
				Events:		
	Increased level of resilience and cyber security	Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing resilience and cyber security of Internet		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
		Event registration lists		Social network:		
				Events:		





	Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing infrastructures for secure online interactions and trustworthy online identities		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
		Event registration lists		Social network:		
	Increased sustainability and health of the information and media ecosystem.	Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing sustainability and health of the information and media ecosystem		
				How many successful approaches and case studies were	Web:	
				Social network:		



		<p>Relevant Projects' communication statistics</p> <p>Event registration lists</p>	<p>communicated to and considered by the target groups? What was their response to this?</p>	<p>Events:</p>		
<b>Making Internet more democratic</b>	<p>Increased number of new business models leading towards decentralising power, away from a handful of dominant players.</p>	<p>Feedback from the grantees of the Relevant Projects collected through the Task Force</p>	<p>How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?</p>	<p>Solution/ Concept/ Project from NGI open calls' grantee(s) addressing sustainability and health of the information and media ecosystem</p>		
		<p>Relevant Projects' communication statistics</p> <p>Event registration lists</p>	<p>How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?</p>	<p>Web:</p> <p>Social network:</p> <p>Events:</p>		
	<p>Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.</p>	<p>Feedback from the grantees of the Relevant Projects collected through the Task Force</p>	<p>How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?</p>	<p>Solution/ Concept/ Project from NGI open calls' grantee(s) addressing the provision of meaningful consent, opt-out and self-govern of interactions</p>		



				with internet services		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
		Event registration lists		Social network:		
		Events:				
	Increased control of internet users over their own data, so regaining data sovereignty.	Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing data sovereignty		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
Event registration lists		Social network:				
	Events:					
<b>Making Internet more inclusive</b>	Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing inequalities provoked by AI and Machine Learning tools		
		Relevant Projects' communication statistics	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
				Social network:		
	Events:					



		Event registration lists					
Increased level of internet safety for all users, ensuring the promotion of diversity		Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grantee(s) addressing internet safety and the promotion of diversity			
	Relevant Projects' communication statistics	Event registration lists	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:			
				Social network:			
				Events:			
	Increased accessibility of internet providing everyone with the ability to shape and harness its power.		Feedback from the grantees of the Relevant Projects collected through the Task Force	How many capabilities / solutions / concepts addressing these issues were / are planned to be developed by the grantees of the Relevant Projects? Why are they relevant?	Solution/ Concept/ Project from NGI open calls' grante(s) addressing accessibility of Internet		
		Relevant Projects' communication statistics	Event registration lists	How many successful approaches and case studies were communicated to and considered by the target groups? What was their response to this?	Web:		
Social network:							
Events:							

TABLE 1 - D5.1 MONITORING APPROACH





# 1 QUANTITATIVE PERSPECTIVE

The objective of this section is to provide a quantitative overview of the NGI open calls, respective applicants and winners, their country of origin and type of organisations, as of June 2020.

The information of this sections stems from the NGI open calls' metrics online monitoring spreadsheet, hosted on NGI drive cloud storage, whose data is kept updated by each coordinator of the respective NGI RIAs and CSAs.

## 1.1 LEDGER

### 1.1.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total number of applicants amounts to 626, where 291 applied for the first call and 335 for the second call.

### 1.1.2 APPLICANTS' COUNTRIES OF ORIGIN

The countries of origin of the applicants of the first open call are: Spain 25%, Germany 12%, UK 11%, Italy 9%, Netherlands 9%, France 8%, Poland 6%, Greece 5%, Portugal 5%, Romania 4%, Switzerland 3%, Finland 3%.

The countries of origin of the applicants of the second open call are: Spain 16%, Italy 9%, Germany 9%, UK 9%, Estonia 8%, Netherlands 5%, Romania 5%, Greece 4%, France 3%, Switzerland 3%, Ireland 3%

### 1.1.3 GENDER BALANCE - APPLICANTS

In total, for both open calls applicants are divided into 65% male and 35% female.

### 1.1.4 APPLICANTS' ORGANISATION TYPE

In total, for both open calls the organisations of the applicants are: Teams of individuals 25%, SMEs and start-ups 47%, Academic Institutions 18%, Non for profit 10%

### 1.1.5 TECHNOLOGY DOMAIN

The technology domain of the applicants is, or is related to blockchain technology, peer to peer, DLT, decentralised technologies.

### 1.1.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

The total number of grantees amounts to 32.

### 1.1.7 GRANT AMOUNT (EURO GRANTED PER WINNER)

The amount of Euro granted per winner is: 150.000€ + 50.000€ as business ignition phase.



### 1.1.8 GRANTS AMOUNT (TOTAL CALLS)

The total grants amount is 3.200.000€.

### 1.1.9 WINNERS' COUNTRY OF ORIGIN

The countries of origin of the winners of the two open calls are: Spain 28,57%, Germany 14,28%, Italy 14%, Finland 14%, Estonia 4,76%, France 4,76%, Slovenia 4,76%, Bulgaria 4,76%, Netherland 4,76%, Greece 4,76%, Ireland 4,76%.

### 1.1.10 GENDER BALANCE - WINNERS

Data not provided by the project

### 1.1.11 WINNERS' ORGANISATION TYPE

The types of organisations of the grantees are: Teams of individuals 19%, SMEs and start-ups 57%, Academic Institutions 14%, Non for profit 9%

### 1.1.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)

The total number of 2020 open calls amounts to one.

## 1.2 NGIO PET AND NGIO DISCOVERY

### 1.2.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total amount of applicants of the two projects combined, across the respective 9 open calls is: 981. Whereas 418 applications were submitted to NGIO Discovery open calls and 563 to NGIO PET's. Namely:

NGIO Discovery: 1st call 70 applications, 2nd call 61 applications, 3rd call 30 applications, 4th call 37 applications, 5th call 50 applications, 6th call 38 applications, 7th call 52 applications, 8th call 46 applications, 9th call 34 applications.

NGIO PET: 1st call 88 applications, 2nd call 72 applications, 3rd call 50 applications, 4th call 46 applications, 5th call 72 applications, 6th call 63 applications, 7th call 52 applications, 8th call 52 applications, 9th call 68 applications.

### 1.2.2 APPLICANTS' COUNTRIES OF ORIGIN\*

NGIO Discovery: Austria (3 proposals), Belgium (4 proposals), Canada (2 proposals), Cyprus (1 proposal), Denmark (1 proposal), Estonia (3 proposals), France (20 proposals), Germany (20 proposals), Hungary (4 proposals), Iceland (1 proposal), Ireland (1 proposal), Israel (1 proposal), Italy (2 proposals), Netherlands (13 proposals), Poland (2 proposals), Portugal (1 proposal), Romania (1 proposal), Singapore (1 proposal), Spain (1 proposal), Sweden (1 proposal), Switzerland (5 proposals), United Kingdom (5 proposals).

NGIO PET: Australia (1 proposal), Austria (3 proposals), Belgium (4 proposals), Canada (4 proposals), Croatia (1 proposal), Czech Republic (2 proposals), Denmark (1 proposal), Ecuador (1 proposal), Finland (3 proposals), France (13 proposals), Germany(42 proposals), Hong Kong (1 proposal), Hungary (3 proposals), India (1 proposal), Ireland (1 proposal), Italy



(3 proposals), Luxembourg (1 proposal), Netherlands (16 proposals), Poland (1 proposal), Portugal (1 proposal), Serbia (1 proposal), Singapore (3 proposals), Slovakia (1 proposal), Slovenia (3 proposals), Spain (3 proposals), Sweden (2 proposals), Switzerland (4 proposals), United Kingdom (13 proposals), United States (4 proposals).

\*NGIO Discovery and NGIO PET are monitoring only the lead applicant's data (country of origin and type of organisation), meaning that data of non-lead applicants of joint applications are not considered.

### 1.2.3 GENDER BALANCE - APPLICANTS

Data not provided by the project

### 1.2.4 APPLICANTS' ORGANISATION TYPE

NGIO Discovery: Natural Person (38,7%), SMEs (37,5%), Research organisation (3,6%), Higher Education (e.g. university) (7,8%), Other Public Sector (municipalities, regions...) (0,4%), Other non-for-profit (NGO, foundation, association) (11,4%), Other private organisation (large company...) (0,2%).

NGIO PET: Natural Person (39,6%), SMEs (39,6%), Research organisation (2%), Higher Education (e.g. university) (5,6%), Other Public Sector (municipalities, regions...) (0%), Other non-for-profit (NGO, foundation, association) (11,9%), Other private organisation (large company...) (0,6%).

### 1.2.5 TECHNOLOGY DOMAIN

NGIO Discovery: search engine, peer-to-peer, distributed ledger, browser, routing, multicast, social media, web scraping, protocols (IPv4/6, ActivityPub), (hyperlocal) semantic search, domain-specific search and discovery platforms (for example open hardware design, local political news, food information), private by design data analysis

NGIO PET: Domain Name System (DNSSEC, DoH DoT) hardware, firmware, browsers, cryptography, messaging and communication (instant messaging, audio/video calling, videoconferencing), virtual private networks (VPN), operating systems, instant messaging, (onion) routing, protocols.

### 1.2.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

NGIO Discovery: the total number of grantees amounts to 81 for 8 closed calls.

NGIO PET: the total number of grantees amounts to 127 for 8 closed calls.

### 1.2.7 GRANT AMOUNT (EURO GRANTED PER WINNER)

The grand amount per winner ranges from 5.000 to 50.000€.

### 1.2.8 GRANTS AMOUNT (TOTAL CALLS)

The total grants amount is 5.600.000€.

### 1.2.9 WINNERS' COUNTRY OF ORIGIN





NGIO Discovery: Austria (3%), Belgium (4%), Canada (2%), Cyprus (1%), Denmark (1%), Estonia (3%), France (22%), Germany (22%), Hungary (4%), Iceland (1%), Ireland (1%), Israel (1%), Italy (2%), Netherlands (14%), Poland (2%), Portugal (1%), Romania (1%), Singapore (1%), Spain (1%), Sweden (1%), Switzerland (5%), United Kingdom (5%).

NGIO PET: Australia (1%), Austria (2%), Belgium (3%), Canada (3%), Croatia (1%), Czech Republic (1%), Denmark (1%), Ecuador (1%), Finland (2%), France (9%), Germany (31%), Hong Kong (1%), Hungary (2%), India (1%), Ireland (1%), Italy (2%), Luxembourg (1%), Netherlands (12%), Poland (1%), Portugal (1%), Serbia (1%), Singapore (2%), Slovakia (1%), Slovenia (2%), Spain (2%), Sweden (1%), Switzerland (3%), United Kingdom (9%), United States (3%).

### 1.2.10 GENDER BALANCE - WINNERS

Data not provided by the project

### 1.2.11 WINNERS' ORGANISATION TYPE

NGIO Discovery: Natural Person (71,7%); SMEs (17,2%); Research organisation (0,7%); Higher Education (e.g. university) (1,4%); Other Public Sector (municipalities, regions...) (0%); Other non-for-profit (NGO, foundation, association) (9%); Other private organisation (large company...) (0%).

NGIO PET: Natural Person (76,9%); SMEs (15,8%); Research organisation (0,9%); Higher Education (e.g. university) (2,1%); Other Public Sector (municipalities, regions...) (0%); Other non-for-profit (NGO, foundation, association) (4,3%); Other private organisation (large company...) (0%).

### 1.2.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)

NGIO Discovery will issue/ had issued a total of 6 open calls.

NGIO PET will issue/ had issued a total of 6 open calls.

## 1.3 NGI TRUST

### 1.3.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total number of applicants across three open calls amounts to: 187. Whereas 109 applications were submitted for the 1<sup>st</sup> call, 78 for 2<sup>nd</sup> call and 112 for 3<sup>rd</sup>.

### 1.3.2 APPLICANTS' COUNTRIES OF ORIGIN

The countries of origin of the applicants are France (18.1%), UK (12.4%), Germany (10.2%), Spain (8.5%), Netherlands (7.9%).

### 1.3.3 GENDER BALANCE - APPLICANTS

Data not provided by the project

### 1.3.4 APPLICANTS' ORGANISATION TYPE



The applicants' organisation type is not tracked by the project, however, as per the winners the organisation types are: SME 48%, Higher Education 26%, Not for Profit 15%, Research Organisation 7%, Natural Person 4%.

### **1.3.5 TECHNOLOGY DOMAIN**

The technology domains are mainly: SSI, user-centred design, privacy, data protection.

### **1.3.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)**

The total number of grantees amounts to 53.

### **1.3.7 GRANT AMOUNT (EURO GRANTED PER WINNER)**

This data varies significantly grantee per grantee.

### **1.3.8 GRANTS AMOUNT (TOTAL CALLS)**

The total grants amount is 2.112.723€.

### **1.3.9 WINNERS' COUNTRY OF ORIGIN**

The winners' countries of origin are 14: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, North Macedonia, Netherlands, Portugal, Serbia, Sweden, and UK.

### **1.3.10 GENDER BALANCE - WINNERS**

Data not provided by the project

### **1.3.11 WINNERS' ORGANISATION TYPE**

The winners' organisation types are: SME 48%, Higher Education 26%, Not for Profit 15%, Research Organisation 7%, Natural Person 4%.

### **1.3.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)**

The total amount of open calls issued in 2020 is: 1.

## **1.4 NGI EXPLORERS**

### **1.4.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)**

The total number of applicants across two open calls amounts to 264. Whereas 130 applications were submitted for the 1<sup>st</sup> open call and 134 for the 2<sup>nd</sup>.

### **1.4.2 APPLICANTS' COUNTRIES OF ORIGIN**

The countries of origin of the applicants of the first open call are: Armenia, Austria, Belgium, Belgium, Denmark, Estonia, Finland, France, Ghana, Greece, Hungary, Ireland, Italy, Latvia,



Lithuania, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Sweden, Tunisia, Turkey, Ukraine, United Kingdom.

The countries of origin of the applicants of the second open call are: Armenia, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India, Ireland, Israel, Italy, Kenya, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Serbia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, United States.

#### **1.4.3 GENDER BALANCE - APPLICANTS**

The distribution across the two open calls is 80% male and 20% female.

#### **1.4.4 APPLICANTS' ORGANISATION TYPE**

The type of organisations of the applicants are: Research centre, SME, start-ups and University.

#### **1.4.5 TECHNOLOGY DOMAIN**

The technology domains are: AI, 5G, Big data, Blockchain, cybersecurity, IoT.

#### **1.4.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)**

The total number of grantees is 28. Whereas 14 winners were selected from the 1<sup>st</sup> open call and 18 from the 2<sup>nd</sup>.

#### **1.4.7 GRANT AMOUNT (EURO GRANTED PER WINNER)**

The grant amount per winner is 27.900€ (for a 6-month expedition) and 13.950€ (for a 3-month expedition).

#### **1.4.8 GRANTS AMOUNT (TOTAL CALLS)**

The total grants amount is 279.000€.

#### **1.4.9 WINNERS' COUNTRY OF ORIGIN**

The winners' countries of origin are: Austria, Belgium, Ireland, Italy, Poland, Portugal, Tunisia, Turkey, Spain.

#### **1.4.10 GENDER BALANCE - WINNERS**

The distribution across the two open calls is 81,5% male and 18,5 % female.

#### **1.4.11 WINNERS' ORGANISATION TYPE**

The winners' organisation types are: University (46%), Start-up (27%), Research centre (20%), SME (7%)

#### **1.4.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)**



A total amount of three calls were issued in 2020, with the 3<sup>rd</sup> one happening in October 2020.

## 1.5 DAPSI

### 1.5.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total number of applicants is 182, for first and only open call issued.

### 1.5.2 APPLICANTS' COUNTRIES OF ORIGIN

The applicants' countries of origin are: Austria 0.4%; Belgium 4%; Brazil 0.4%; Croatia 0.4%; Cyprus 2.4%; Estonia 2.4%; Finland 4.5%; France 15.8%; Georgia 1.6%; Germany 9.7%; Greece 4.5%; Hungary 1.6%; Iran 0.4%; Ireland; 2%; Israel 0.4%; Italy 3.6%; Latvia 0.4%; Luxembourg 0.4%; Nepal 0.8%; Netherlands 4.5%; Norway 0.4%; Poland 0.4%; Portugal 5.7%; Romania 9.3%; Serbia 0.8%; Slovakia 0.4%; Slovenia 1.2%; Spain 7.3%; Sweden 1.6%; Switzerland 1.6%; Turkey 0.4%; UK 6.1%; Ukraine 0.4%.

### 1.5.3 GENDER BALANCE - APPLICANTS

Data not provided by the project

### 1.5.4 APPLICANTS' ORGANISATION TYPE

The applicants' organisation types are: SMEs 64.37%, Individuals 25.51%; Research organisations 3.64%; Higher Education organisation 2.43%; Other non-for-profit 2.43%; Other 0.81%.

### 1.5.5 TECHNOLOGY DOMAIN

Data Compatibility & Interoperability, Data Transparency, Data Privacy, others.

### 1.5.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

11 projects with 17 beneficiaries.

### 1.5.7 GRANT AMOUNT (EURO GRANTED PER WINNER)

Each winner can be granted up to 150.000€.

### 1.5.8 GRANTS AMOUNT (TOTAL CALLS)

The total grants amount is 5.600.000€.

### 1.5.9 WINNERS' COUNTRY OF ORIGIN

Austria 6%, Belgium 12%, Finland 6%, France 23%, Germany 12%, Serbia 6%, Slovenia 12%, Spain 12%, Sweden 6%, Switzerland 6%.

### 1.5.10 GENDER BALANCE - WINNERS



Data not provided by the project

#### 1.5.11 WINNERS' ORGANISATION TYPE

Natural person 12%, SMEs 64%, Research organisation 6%, Higher Education (e.g. university) 6%, Other non-for-profit (NGO, foundation, association, etc.) 12%.

#### 1.5.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)

The total amount of open calls issued in 2020 is: 2.

## 1.6 ESSIF LAB

#### 1.6.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total number of applicants amounts to 90. Whereas 54 applications were submitted for the 1<sup>st</sup> Business oriented call and 36 in the Infrastructure-oriented call.

#### 1.6.2 APPLICANTS' COUNTRIES OF ORIGIN

The applicants' countries of origin for BOC1 are: Italy 15%, Germany 13%, France 11%, United Kingdom 9%, Switzerland 7%, Spain 6%, Ireland 6%, Sweden 4%, Netherlands 4%, Finland 4%, Austria 4%, Slovenia 2%, Romania 2%, Portugal 2%, Poland 2%, Lithuania 2%, Greece 2%, Estonia 2%, Denmark 2%, Cyprus 2%, Belgium 2%.

The applicants' countries of origin for IOC (1st batch) are: Germany 15%, Netherlands 7%, Italy 6%, Slovenia 6%, Spain 6%, Switzerland 6%, United Kingdom 6%, Ireland 4%, Sweden 4%, Belgium 2%, Czech Republic 2%, Greece 2%, Norway 2%, Ukraine 2%.

#### 1.6.3 GENDER BALANCE - APPLICANTS

Data not provided by the project

#### 1.6.4 APPLICANTS' ORGANISATION TYPE

The applicants' organisation types are: SMEs 94%, Individuals 6%. IOC: SMEs 67%, Research organisation 6%, Higher Education (e.g. university) 6%, Other Public Sector (municipalities, regions, etc.) 3%, Other non-for-profit (NGO, foundations, etc.) 8%, Other private organisation (e.g. large companies) 11%.

#### 1.6.5 TECHNOLOGY DOMAIN

The technology domains are Self-Sovereign Identities and Trusted digital Identity.

#### 1.6.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

The total number of grantees amounts to: 28. Whereas 21 stemming from BOC1 and 7 from the 1<sup>st</sup> batch IOC.

#### 1.6.7 GRANT AMOUNT (EURO GRANTED PER WINNER)



The grant amount per winner for the BOC1 is up to 106.000€.  
The grant amount per winner for the IOC is 155.000€.

#### **1.6.8 GRANTS AMOUNT (TOTAL CALLS)**

The grants amount is 5.600.000€.

#### **1.6.9 WINNERS' COUNTRY OF ORIGIN**

The winners' countries of origin are: Austria 9.52%, Belgium 4.76%, Denmark 4.76%, Finland 9.52%, Germany 19.05%, Ireland 4.76%, Italy 14.29%, Slovenia 4.76%, Spain 4.76%, Switzerland 9.52%, United Kingdom 14.29%.

#### **1.6.10 GENDER BALANCE - WINNERS**

57% of the teams declared the involved team is gender-balanced.

#### **1.6.11 WINNERS' ORGANISATION TYPE**

As per BOC1 the winners' organisation type is SME.

#### **1.6.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)**

The total amount of open calls issued in 2020 is: 3.

## **1.7 NGI FORWARD**

#### **1.7.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)**

The total number of applicants amounts to: 34.

#### **1.7.2 APPLICANTS' COUNTRIES OF ORIGIN**

The countries of origin of the applicants are: Belgium 3.03% Estonia 3.03% Finland 6.06% France 6.06% Germany 12.12% Greece 9.09% Ireland 3.03% Italy 9.09% Netherlands 12.12% Spain 9.09% Sweden 3.03% Uganda 3.03% United Kingdom 21.21%.

#### **1.7.3 GENDER BALANCE - APPLICANTS**

Data not provided by the project

#### **1.7.4 APPLICANTS' ORGANISATION TYPE**

The applicants' organisation types are: Community Interest Company (CIC) 9.09%, Company limited by guarantee 15.15%, Company limited by shares 30.30%, Independent research organisation/academic institution 9.09%, Other 15.15%, Public body 9.09%, Registered charity 3.03%, Registered Community Interest Organisation (CIO) 9.09%.

#### **1.7.5 TECHNOLOGY DOMAIN**



Data not provided by the project

### **1.7.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)**

The total number of grant winners is: 4.

### **1.7.7 GRANT AMOUNT (EURO GRANTED PER WINNER)**

The amounts vary significantly project by project.

### **1.7.8 GRANTS AMOUNT (TOTAL CALLS)**

The total amount of grants amount is: 80.000€.

### **1.7.9 WINNERS' COUNTRY OF ORIGIN**

The winners' countries of origin are: UK, Netherlands, Spain.

### **1.7.10 GENDER BALANCE - WINNERS**

Data not provided by the project

### **1.7.11 WINNERS' ORGANISATION TYPE**

The types of winners' organisations are: Independent research organisation/academic institution 25.00%, Public body 50.00%, Registered charity 25.00%.

### **1.7.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)**

The total amount of open calls issued in 2020 is: 1.

## **1.8 NGI POINTER**

### **1.8.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)**

The total amount of applicants is: 159.

### **1.8.2 APPLICANTS' COUNTRIES OF ORIGIN**

The applicants' countries of origin are: 0.6% Armenia, 2.5% Austria, 5.7% Belgium, 1.3% Bulgaria, 0.6% Cyprus, 0.6% Czech Republic, 3.1% Estonia, 4.4% Finland, 3.8% Greece, 2.5% Ireland, 0.6% Israel, 4.4% Italy, 0.6% Latvia, 3.8% Netherlands, 0.6% Norway, 1.3% Poland, 3.8% Portugal, 1.3% Romania, 0.6% Slovakia, 2.5% Slovenia, 10.7% Spain, 1.3% Sweden, 6.3% Switzerland, 0.6% Turkey, 1.3% Ukraine, 10.7% UK, 15.1% Germany, 0.6% Georgia, 6.9% France, 1.9% Serbia.

### **1.8.3 GENDER BALANCE - APPLICANTS**

The distribution of the applicants is 84% male and 16% female.



#### 1.8.4 APPLICANTS' ORGANISATION TYPE

Data not provided by the project

#### 1.8.5 TECHNOLOGY DOMAIN

The technology domains are: Data & AI 4%, Decentralised solutions, blockchain, distributed ledger 4%, Measurement, monitoring, analysis & abuse handling 4%, Middleware, distribution, deployment, operations, DNS, Authorisation, Authentication, Reputation systems 3%, Network & Transport infrastructure incl. routing, P2P & VPN 30%, Operating Systems, firmware and virtualisation 2%, Services & Applications (e.g. email, instant messaging, search, video chat, Collaboration, Community) 1%, Trustworthy hardware & manufacturing 11%, Software Engineering (incl. Protocols, interoperability and fundamentals e.g. cryptography, algorithms, proofs) 40%.

#### 1.8.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

The total number of grant winners amounts to: 24.

#### 1.8.7 GRANT AMOUNT (EURO GRANTED PER WINNER)

The grant amount granted per winner is up to 200.000€.

#### 1.8.8 GRANTS AMOUNT (TOTAL CALLS)

The total grants amount is 5.600.000€.

#### 1.8.9 WINNERS' COUNTRY OF ORIGIN

The countries of origin of the winners are: Belgium 13%, Czech Republic 4%, Finland 4%, France 8%, Germany 25%, Ireland 4%, Netherlands 13%, Serbia 4%, Slovenia 4%, Spain 8%, Switzerland 4%, UK 8%.

#### 1.8.10 GENDER BALANCE - WINNERS

The distribution of the winners is 90% male and 10% female.

#### 1.8.11 WINNERS' ORGANISATION TYPE

The winners' organisation types are 53% legal person and 47% natural person.

#### 1.8.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)

The total amount of calls issued in 2020 is: 1.

## 1.9 NGI ATLANTIC

#### 1.9.1 NO. OF APPLICANTS (TOTAL OF ALL CALLS)

The total amount of applicants is: 21.





### 1.9.2 APPLICANTS' COUNTRIES OF ORIGIN

The applicants' countries of origin are: Austria 4%; Belgium 4%; Bulgaria 4%; Cyprus 4%; Czech Republic 4%; Denmark 4%; France 12%; Germany 15%; Greece 8%; Ireland 12%; Slovenia 8%; Spain 15%; Ukraine 4%; United Kingdom 4%; USA 1%.

### 1.9.3 GENDER BALANCE - APPLICANTS

Data not provided by the project

### 1.9.4 APPLICANTS' ORGANISATION TYPE

The EU applicants' organisation types are: SMEs 56%; Research organisation 7%; Higher Education (e.g. university) 30%; Other non-for-profit (NGO, foundation, association, etc.) 7%. The US applicants' organisation types are: SMEs 38%; Research organisation 10%; Higher Education (e.g. university) 38%; Other non-for-profit (NGO, foundation, association...) 14%.

### 1.9.5 TECHNOLOGY DOMAIN

The technology domains are: Key enabling NGI technologies - 5G, Big Data, IoT, Cybersecurity, A.I., and others, addressing NGI priority topics where results are already mature enough for EU - US experimentation, including: Privacy and Trust enhancing technologies; Decentralised data governance; and Discovery and identification technologies.

### 1.9.6 NUMBER OF GRANT WINNERS (TOTAL OF ALL CALLS)

The total number of grant winners is: 6.

### 1.9.7 GRANT AMOUNT (EURO GRANTED PER WINNER)

The grant amount granted per winner is up to 150.000€.

### 1.9.8 GRANTS AMOUNT (TOTAL CALLS)

The total grants amount is 2.800.000€.

### 1.9.9 WINNERS' COUNTRY OF ORIGIN

The winners' countries of origin are: Austria 14%, France 14%, Germany 14%, Greece 14%, Slovenia 14%, Spain 29%.

### 1.9.10 GENDER BALANCE - WINNERS

Data not provided by the project

### 1.9.11 WINNERS' ORGANISATION TYPE

The EU winners' organisation types are: SMEs 29%; Research organisation 14%; Higher Education (e.g. university) 57%. The US winners' organisation types are: SMEs 29%; Higher Education (e.g. university) 57%; Other non-for-profit (NGO, foundation, association...) 14%.



### 1.9.12 NO OF CALLS 2020 AND PLANNED TIMELINE (where applicable)

The total amount of calls issued in 2020 is: 2.



## 2 QUANTITATIVE OVERVIEW

This section aims at providing a quantitative overview of NGI open calls' metrics stemming from the previous section.

The section first presents the total number of applicants; winners, grants and 2020 open calls issued, followed by overviews of the main technology domains of the open calls and both winners and applicants' respective countries of origin and type of organisations.

As per gender balance, the majority of NGI CSAs and RIAs do not monitor such aspect and therefore it was not possible to provide a general overview of this aspect.

Total applicants	Total winners	Total grants €	Total 2020 open calls
1.724	379	30.871.723€	26

TABLE 2 - TOTAL APPLICANTS; WINNERS; 2020 OPEN CALLS



## 2.1 APPLICANTS' COUNTRIES OF ORIGIN

Out of the 1724 applications, submitted, the 10 countries that submitted more applications across the NGI open calls are:

1. Germany: 220 applications (13%)
2. Spain: 201 applications (11,7%)
3. France: 167 applications (9,5%)
4. UK: 161 applications (9%)
5. Netherlands: 123 applications (7%)
6. Italy: 107 applications (6%)
7. Greece: 71 applications (4%)
8. Portugal: 64 applications (3,7%)
9. Romania: 63 applications (3,7%)
10. Finland: 55 applications (3,2%)

### APPLICANTS' COUNTRIES OF ORIGIN

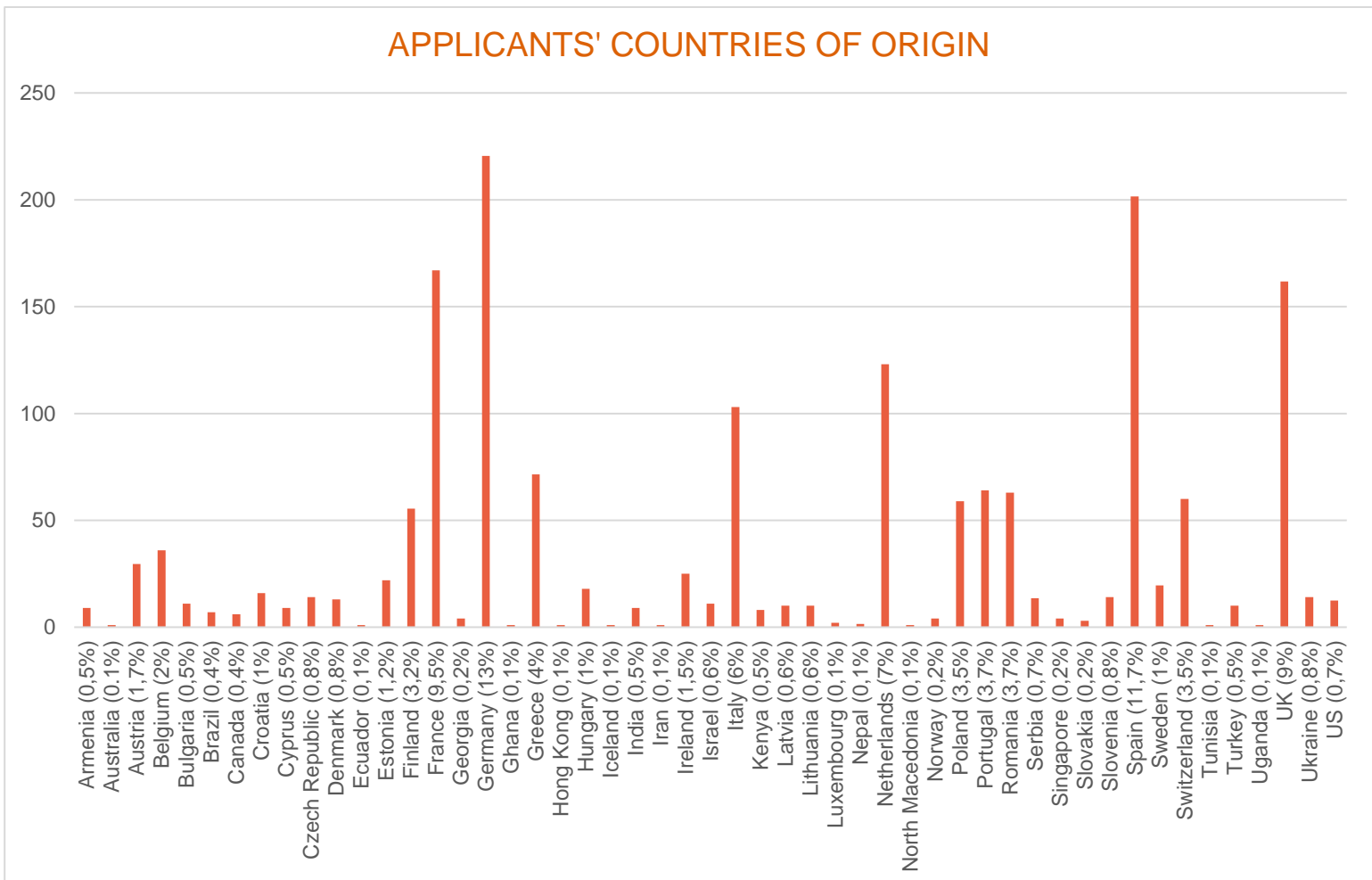


FIGURE 1 - APPLICANTS' COUNTRIES OF ORIGIN



## 2.2 WINNERS' COUNTRIES OF ORIGIN

The countries that awarded more NGI grants are:

1. Germany: 20% of total grantees
2. France: 12% of total grantees
3. Netherlands: 9% of total grantees
4. UK: 7,5% of total grantees
5. Spain: 7% of total grantees
6. Belgium: 5% of total grantees
7. Italy: 4,80% of total grantees
8. Austria: 3,80% of total grantees
9. Finland: 3,50% of total grantees
10. Switzerland: 3% of total grantees

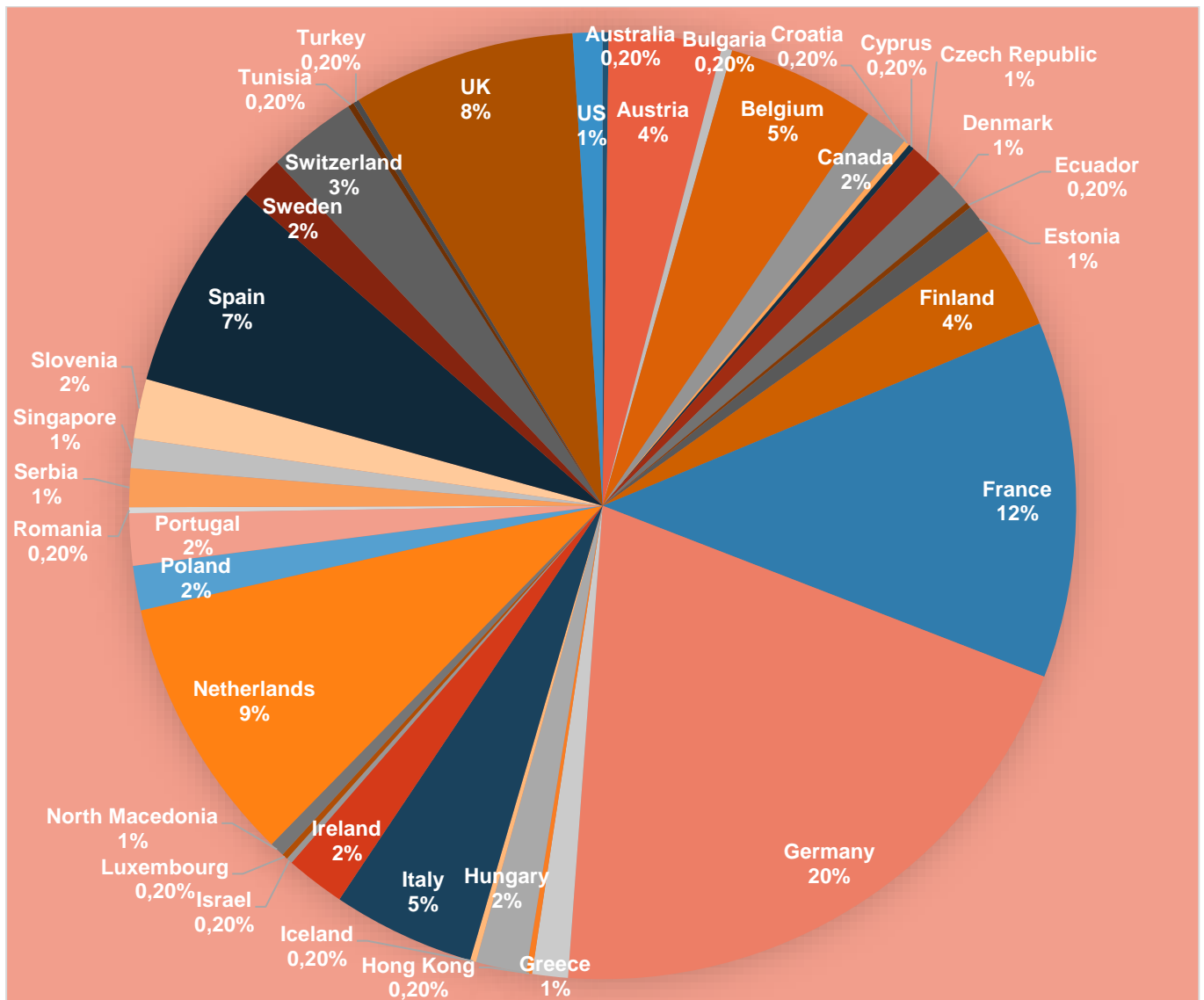


FIGURE 2 - WINNERS' COUNTRIES OF ORIGIN



## 2.3 APPLICANTS' TYPES OF ORGANISATIONS

The applicants' types of organisations see a predominance of SMEs and start-ups, followed by individuals and academic institutions, namely:

1. SME and start-ups: 50%
2. Individuals: 27%
3. Academic institutions: 11%
4. Non-profit organisations: 5,75%
5. Research organisations: 5%
6. Other private organisations (e.g. large companies): 0,50%
7. Other: 0,25%
8. Public bodies: 0,25%

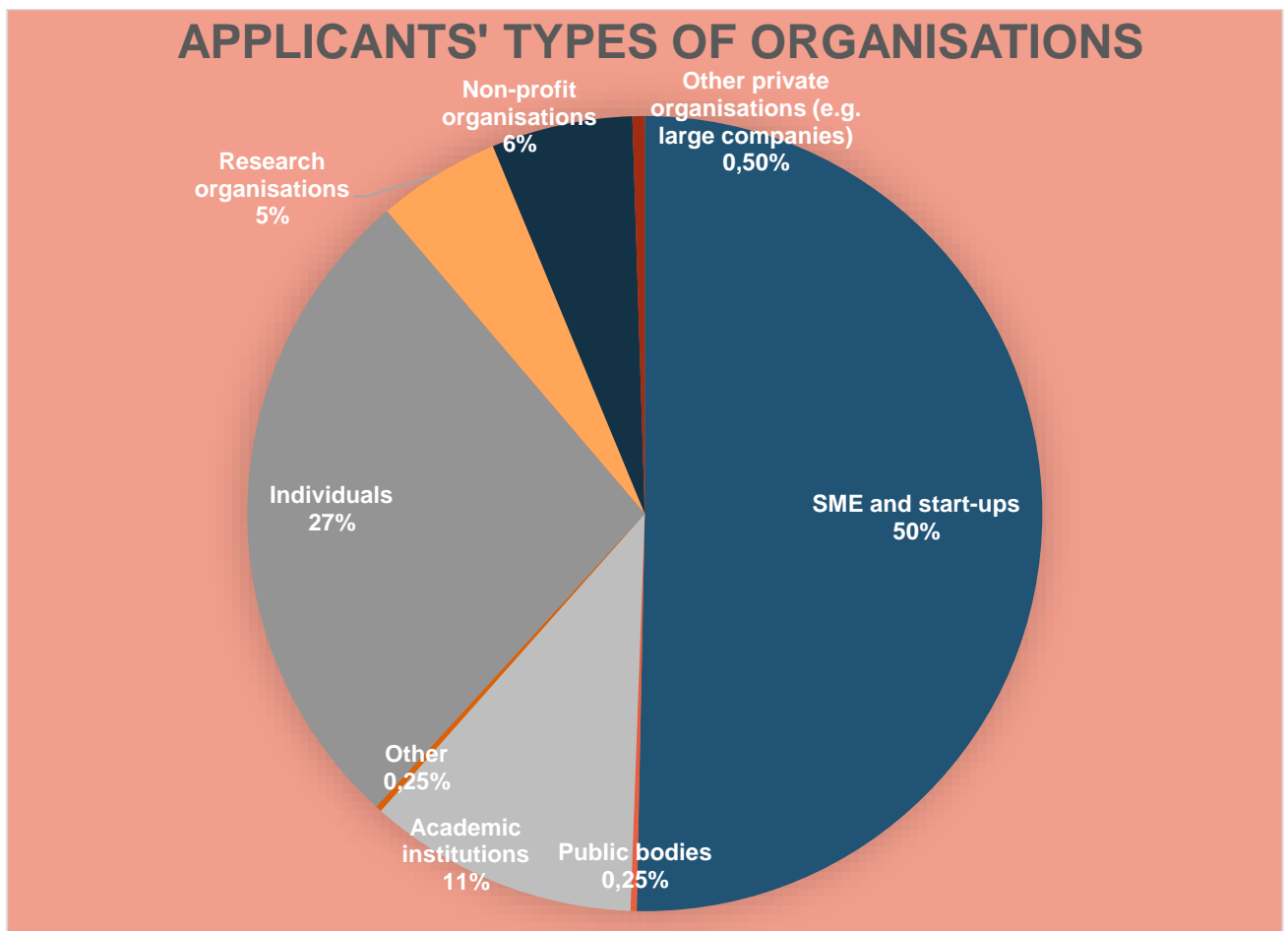


FIGURE 3 - APPLICANTS' TYPES OF ORGANISATIONS

## 2.4 WINNERS' TYPES OF ORGANISATIONS

The winners' types of organisations see a predominance of individuals, SMEs and start-ups, followed by academic institutions and non-profit organisations, namely:

1. Individuals: 53,5%
2. SMEs and start-ups: 27,3%
3. Academic institutions: 7,5%
4. Non-profit organisations: 6,5%
5. Research institutes: 2,5%
6. Other (i.e. "legal person"): 2%
7. Public bodies: 0,35%

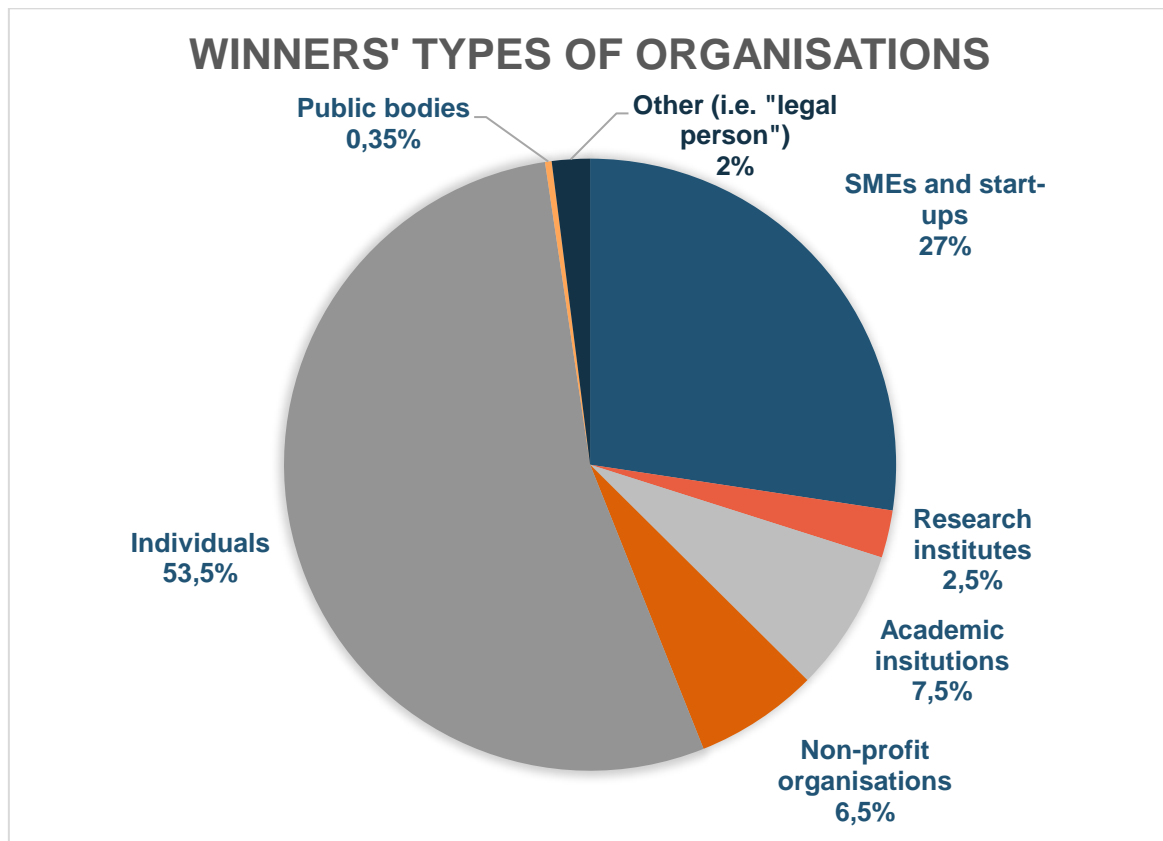


FIGURE 4 - WINNERS' TYPES OF ORGANISATIONS

## 2.5 TECHNOLOGY DOMAINS

The NGI RIAs and CSAs foster the usage and development of protocols, software, hardware, etc. embracing or making use of a broad and diversified spectrum of technology domains, however, the main ones are:

- Distributed ledger and decentralised solutions (general)
- Blockchain (general)
- Routing (i.e. comprised in applications for network and transport infrastructures, more specifically, onion routing)
- Communication services and applications (i.e. for instant messaging, live chats, videoconferencing, etc.)
- Cryptography (i.e. algorithms for software engineering), including but not limited to:
  - VPN protocols
  - DNS protocols
  - Blockchain protocols
- AI
- 5G
- IoT





### 3 QUALITATIVE PERSPECTIVE

The information of this section stems from bilateral interviews conducted by TETRA with each of the NGI CSA and RIAs' coordinators.

#### 3.1 LEDGER

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input checked="" type="checkbox"/>
Increased level of resilience and cyber security	<input checked="" type="checkbox"/>
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input checked="" type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input checked="" type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

LEDGER is contributing to all outcomes, except for “the increased sustainability and health of the information and media ecosystem” and “the decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools”. As in the case of LEDGER, those can be considered as possible side effects rather than direct outcomes of the project.

LEDGER core focus consists in fostering human centric design; privacy; de-centralisation and therefore the project is funding solutions more related to blockchain, for example, which does not preclude applications with AI and Machine Learning, but could be applied just as a side effect.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- Yes, with national policymaker. Which topic did you discuss?
- Yes, with European policymaker
- Yes, on both levels

- Mostly No

The answer is “Mostly No” as LEDGER is an MVP project (Minimum Viable Product), and therefore it is not probable and in the scope as well that one product at some point influences policies or may have policies as target.

LEDGER focuses more on making its beneficiaries develop an MVP, create a community for open source development and decentralized blockchain, and therefore the political sphere is not touched.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- 25-50%
- More than 50%

Please explain your assumption above.

LEDGER had two rounds of calls where per each call 60 applications were funded, and out of the 60 selected projects the best 8 are selected for receiving additional support from the project (the so called “business ignition phase”).

In the case of LEDGER “best” consists in having more probabilities of surviving after LEDGER funding and activities. Therefore, LEDGER is selecting the best prospects business-wise, while at the same time other funded projects may prosper in other ways (e.g. with social impacts or with support from communities).

The 8 selected projects get connected with networks of investors, pitching conferences and much more and for this reason, with an optimistic view, the 25-50% of selected projects out of the 60 applications may see their applications adopted by external target groups.

In addition, business sustainability and market strategy are selection criteria included in LEDGER calls and therefore, the selected and funded projects are those with a more mature and market-oriented nature.

E) How many new jobs could be created thanks to the outcome of your project?

LEDGER target profiles are researchers; business developers/ entrepreneurs and programmers, meaning that each funded project must comprise one or more of those profiles. What happens normally, is that the funded projects are hiring (part-time) complementary profiles and therefore there is an impact on job creation, which is however difficult to quantify.

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

The best projects selected for the “business ignition phase”, to benefit from the services and receive additional resources must register a company. This implies there is an additional creation of startups created by LEDGER.



G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

This is a too early stage for answering this question (as LEDGER issued one open call) but this is an aspect LEDGER is working on for their own beneficiaries to facilitate at best the economic viability of the proposed applications.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’					X
Involving relevant stakeholders				X	
Creating new collaborations					X
Creating new knowledge				X	
Economic impact			X		

### 3.2 NGIO PET AND NGIO DISCOVERY

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input checked="" type="checkbox"/>
Increased level of resilience and cyber security	<input checked="" type="checkbox"/>
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input checked="" type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input checked="" type="checkbox"/>



Increased accessibility of internet providing everyone with the ability to shape and harness its power.	☒
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B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

The Zero PET project is targeting privacy enhancing technology while Zero DISCOVERY is focused on enhancing the efficiency of search and balance between technology providers and users. For this reason, the target NGI beneficiaries of the two NGI projects are submitting applications with similarities, for this reason some, not all, of the answers may be valid for both projects.

Sustainability is targeted by both projects although with Zero PET there are also hardware projects that therefore are focused also on the sustainability of materials (e.g. they are trying applications to make the CPU use less energy than current CPUs, which of course has a sustainable impact). While with Zero Discovery for example, there is a project developing a search engine which, basing on users' request gives results just from green hosts or green companies.

With regard to the increase of resilience in cybersecurity and increase available infrastructures necessary for secure online interactions and trustworthy online identities, they are to be considered as one of the main drivers for both projects, but with a main accent on Zero PET. Same could be applied for the sustainability and health of information, but this is more to be considered as a side effect.

As per new business models leading towards decentralising power, away from a handful of dominant players, the answer is that this is an objective of both projects, but both projects are taking small steps towards it. In particular, the two NGI projects are implementing the so called "activitypub", which is a decentralized social networking protocol, that has a lot of open source alternatives. Both Zero PET and DISCOVERY are funding different projects that fall under the activitypub umbrella, an example can be the [Funkwhale project](#) where you can share music with your audience without the need of using established realities like Spotify.

To summarize, the objective of the two projects is not to take over well established entities such as Facebook or Spotify, but as indirect or side effect of the funded projects, Zero PET and DISCOVERY are creative alternative open source business models.

Both Zero PET and DISCOVERY are contributing to an increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services; while DISCOVERY is funding more projects on searchability and therefore is targeting the increased control of internet users over their own data, so regaining data sovereignty.

With regard to accessibility and diversity, this is an aspect considered very seriously by both NGI projects as organisations dedicated to tutor and represent diversity are both included in the consortia and moreover, within the funded projects, attention is paid to gender balance which is included in the submission forms of the NGI open calls.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- **Yes, with national policymaker. Which topic did you discuss? (PET) (DISCOVERY)**



- Yes, with European policymaker
- Yes, on both levels
- Mostly No

Both Zero PET and DISCOVERY speak with policy makers as it is an intrinsic characteristic of NLNET : NLNET was founded by scientists from the mathematic institute in Amsterdam in the 80's and basically was one of the first internet service providers in the Netherlands. The success of the company led to the founders spending more time into the company rather than in university and for this reason, bearing the will to dedicate again to academic activities, the company was sold.

With the income stemming from the sale, a foundation was established with the mission of making the internet safer, more resilient and more robust. Therefore, NLNET is and was funding itself projects pursuing the same NGI objectives.

From such background (being the internet pioneers in the Netherlands), NLNET is and was in the position of being in constant dialogue with the national administration as far as internet related topics are concerned.

In all this, an aspect that fosters dialogue consists in having in the parliament a number of politicians who are well aware of what is and the importance of open source, this led to make the foundation participate in other national projects fostering open source.

Moreover, in NLNET team there are former officers of the education ministry of the Netherlands.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- 25-50%
- **More than 50%**

Please explain your assumption above.

The objective of both NGI Zero PET and DISCOVERY is to reach more than 50%, however, as mentioned above, the objective of the funded projects is not to create a competitor for established realities such Facebook, Youtube, etc. The overall approach consists instead in "solving existing problems".

On a protocol level, NLNET has wide experience on standardisation bodies and deeply knows where "the problem" is, on a protocol level, and for this reason the two NGI projects are selecting those projects really capable of solving them.

With such approach, it is likely that NGI0 funded projects' solutions will be adopted and as a matter of fact, they are being used. An example is [Cryptpad](#), used also by the NGI outreach office itself or [Xwiki](#), or even [Jitsi](#), an open source encrypted video conferencing software, where all videoconferencing .

E) How many new jobs could be created thanks to the outcome of your project?



The objective of the majority of the funded projects is not to establish a business but rather to solve problems and for this reason job creation could be have minor impact for them, or it could be a side/ indirect impact (e.g. the open source solutions offered may lead to improvements of existing tools, as the example of Jitsi, which could lead to an expansion of existing businesses).

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

Yes, Xwiki is an example, despite being open source, they have now larger clients.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

Yes as this aspect is related to the intrinsic nature of NLNET foundation.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’					X
Involving relevant stakeholders					X
Creating new collaborations					X
Creating new knowledge					X
Economic impact		X			

### 3.3 NGI TRUST

Data was not provided by the project.

### 3.4 NGI EXPLORERS

A) Which of the following outcome(s) is your project contributing to?



Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input checked="" type="checkbox"/>
Increased level of resilience and cyber security	<input checked="" type="checkbox"/>
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input checked="" type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input checked="" type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

In terms of the environmental impact of the internet, NGI EXPLORERS in its first open call is funding projects working on smart buildings (project title: “Knowledge transfer between buildings with different levels of sensorization using transfer learning techniques for the realization of smart buildings”) and on AI applied for bridges’ maintenance (project title: “Bridge Monitoring with Predictive Intelligence”).

Concerning cybersecurity, there are three projects funded under the first open call: “VES – Virtual Ecosystem for Safety & Security”; “New methods and algorithms for increasing Cybersecurity in Blockchain Technology” and a more indirect one dealing on the development of a general honeypot framework to attract attacks of IoT architectures (project title: “Automated Firmware Crawling, Firmware Virtualization and Honeyfarm Deployment of IoT Devices”).

In terms of available infrastructures necessary for secure online interactions and trustworthy online identities, decentralised power and internet safety, NGI EXPLORERS’ funded projects are working a lot with blockchain and AI applications, for example, the above mentioned “New methods and algorithms for increasing Cybersecurity in Blockchain Technology”; “Exchange Valet” which deals with cryptocurrencies or cloud/ edge computing projects such as “Smartnet”.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- Yes, with national policymaker. Which topic did you discuss?
- Yes, with European policymaker
- Yes, on both levels
- **Mostly No**

Since NGI EXPLORERS fosters the exchange of knowledge between EU and USA based organisations via its expeditions, the project interacts mostly with both EU and US research institutes.

However, few USA partners of the project have connections with municipalities as they are “public business incubators”, who in turn collaborate with universities to assess whether certain technologies can be of specific use for public interests. This is the case for example of the NGI EXPLORERS’ funded project “Bridge Monitoring with Predictive Intelligence”.

Moreover, the project “Enhance cities’ innovation capacity by endowing to the inhabitants the capacity to auto-evaluate and measuring the city development using holistic KPIs as metrics” is in direct contact with the National Institute of Standards and Technology U.S Department of Commerce, which is a high-level US public institution.

Hence, at 3<sup>rd</sup> parties’ level, there are multiple interactions with policy makers and public institutions, even though it is not a primary target of the NGI EXPLORERS project.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- **25-50%**
- More than 50%

The beneficiaries of the projects funded by NGI EXPLORERS, besides entering in contact with a high-level environment of “internet leaders” both from EU and USA, receive business acceleration services (e.g. pitch training, marketing communication, American culture and way-of-living, etc.) and mentoring.

The projects funded are indeed working on the state-of-the-art technology domains such as: 5G; IoT; AI; blockchain; cybersecurity and cloud/ edge computing.

As an early example, one startup named RKL Integral S.C.P, which is beneficiary of NGI EXPLORERS, scaled up significantly achieving an agreement signed with the US partner VEOCI (<https://veoci.com/>) with a client contract of 19.424€; with 100.000€ expected by the end of 2020 and a gross sale expected in 2021 of 550.000€.

5 EU venture capitals and 2 US-based venture capitals were highly interested in VES as you can see from this link: <https://www.ngi.eu/blog/2020/07/03/whos-ngi-inaki-eguia-explores-us-collaboration-with-ves/>.

Therefore, expecting an adoption of 25-50% seems realistic considering the successful results NGI EXPLORERS’ beneficiaries are already achieving.

E) How many new jobs could be created thanks to the outcome of your project?

As of October 2020 the beneficiaries started their expeditions (or could not start their March 2020 expeditions due to the COVID-19 outbreak) and for this reason it is a too early stage for providing an exhaustive answer to this question.

Moreover, in general terms, one of the main objectives of NGI EXPLORERS is to create bridges – at either research or business level – between US and EU organisations and for this reason, the creation of new jobs might certainly be a consequence and impact of the project, but at indirect level.





F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

As mentioned above, it is a too early stage to provide an answer to this question. However, NGI EXPLORERS is aware of the fact three projects’ leaders received an invitation to become researchers in the US and two contracts were signed to establish partnership collaborations with research institutes in the US, this is the case of the projects “Scale-Up KPI Explorer” and “VES – Virtual Ecosystem for Safety & Security” whose expeditions will continue after the 3 months funded by NGI EXPLORERS.

Additionally, NGI EXPLORERS open calls receive a high number of applications from SMEs and startups, which are already established businesses which do not see any advantage in creating new organisations.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

NGI EXPLORERS’ beneficiaries will receive a variety of business acceleration services, including training and mentoring on how to attract public and private funding.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’				X	
Involving relevant stakeholders					X
Creating new collaborations					X
Creating new knowledge					X
Economic impact	Too early stage				

### 3.5 DAPSI

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input type="checkbox"/>
Increased level of resilience and cyber security	<input type="checkbox"/>



Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input checked="" type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

With regard to “Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities”, one of the main sub-domain of data portability challenges is security & privacy, which addresses those solutions that offer data anonymization and secure data encryption & transmission during the transfer. Concerning the “Increased number of new business models leading towards decentralising power, away from a handful of dominant players”, the solutions developed in DAPSI facilitate defining new business strategies that aim to address data portability. The companies could apply DAPSI solutions to allow users to exercise their data access rights. As far as “Increased control of internet users over their own data, so regaining data sovereignty” is concerned, one of the main goals of DAPSI is to give users control over their personal data. Article 20 from GDPR has the purpose of making it significantly easier for citizens to have any data which is stored with one service provider transmitted directly to another provider. About “Increased accessibility of the internet providing everyone with the ability to shape and harness its power”, according to the inventor of the World Wide Web, Tim Berner-Lee, “The web has evolved into an engine of inequity and division, swayed by powerful forces who use it for their own agendas”. With DAPSI solutions, people can decide what is shared with which service, and they can harness the power of the internet.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- Yes, with national policymaker. Which topic did you discuss?
- Yes, with European policymaker
- Yes, on both levels
- **Mostly No**

In general, DAPSI is not interacting with policy makers at either national or EU level.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- 25-50%
- More than 50%

It is a too early stage for DAPSI to provide a clear answer, as the programme just started and therefore DAPSI is not aware of the various exploitation strategies of the funded projects.

E) How many new jobs could be created thanks to the outcome of your project?

As per the answer above, it is a too early stage to provide an answer. However, DAPSI is aware of several funded applicants willing to hire new employees after the submission and award of DAPSI open call.

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

The selected applicants of DAPSI open call happened to be all companies, apart from one case consisting in a partnership of three individuals. Therefore, it is not likely that start-ups would be created as the companies are already established, however, this can definitely be a possibility for the following open calls.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

This is not applicable yet for the case of DAPSI.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’					X
Involving relevant stakeholders				X	
Creating new collaborations					X
Creating new knowledge					X



Economic impact			X		
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### 3.6 ESSIF LAB

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input type="checkbox"/>
Increased level of resilience and cyber security	<input type="checkbox"/>
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

ESSIF-LAB is working on SSI (Self Sovereign Identity), more specifically on a software framework to make easier for developers to adapt SSI technologies to the SAS products (Software as a Service).

For this reason, with such a specific address, the outcomes ESSIF-LAB is contributing to are three: “Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities”; “Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services”; “Increased control of internet users over their own data, so regaining data sovereignty”.

ESSIF-LAB open calls are indeed recruiting projects basing on three layers: on one hand they focus on cybersecurity protocols, on the other hand, on an upper and more business-oriented layer, projects focus more on intermediate development where projects build on existing infrastructures to help businesses servicing their products; last, the third layer is more sectorial (business applications divided by sector such as textile, etc.) and it is where ESSIF-LAB drives the funded projects from the two previous layers to a specific business sector.



C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- Yes, with national policymaker. Which topic did you discuss?
- Yes, with European policymaker
- Yes, on both levels
- **Mostly No**

ESSIF-LAB is not interacting with policy makers in a systematic manner and for this reason the answer is “Mostly No”, however, at Consortium level the individual partners may need to interact with local or national policy makers as the funded projects move on.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- 25-50%
- **More than 50%**

Please explain your assumption above.

With specific regard to the infrastructure open calls, there are very specific SMEs, research institutes and non-profit organisations that can fulfil the call’s requirements about open source SSI infrastructures; while for the business open calls, there is no limit of legal nature, type or size of the applicants.

As a result, the applicants are building a specific ecosystem with different players, where their scalable frameworks and infrastructures are adopted by the applicants themselves as they are working with them, so there is an adoption of ESSIF-LAB outcomes by default.

E) How many new jobs could be created thanks to the outcome of your project?

It is difficult to provide an estimate on possible new jobs created by ESSIF-LAB grantees’ outcomes, however, several beneficiaries are hiring developers to be able to build on the scalable work done in the ecosystem.

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

The type of grantees of ESSIF-LAB are already constituted organisations and for this reason they don’t see the advantage or need of creating new start-ups.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?



The ESSIF-LAB business programme is based on a funnel approach, meaning for example, that ESSIF-LAB selects 15 beneficiaries – out of the total beneficiaries of an open call – and from those 15, 5 beneficiaries will be selected to join the final business ignition phase and benefit from business acceleration services.

Among those services, it is comprised also the support to raise additional funds. However, as of October 2020 ESSIF-LAB is at stage 1 of the open calls and therefore did not reach yet the business acceleration phase.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’	Too early stage				
Involving relevant stakeholders			X		
Creating new collaborations				X	
Creating new knowledge				X	
Economic impact	Too early stage				

### 3.7 NGI FORWARD

NGI Forward as of October/ November 2020 just launched four funded sandboxing experiments which shall run until summer 2021.

In the light of the above, TETRA will include the qualitative information stemming from bilateral interviews with NGI Forward coordinator and/ or partners in D5.3, once the project will be able to provide more information.

### 3.8 NGI POINTER

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	☒
Increased level of resilience and cyber security	☒

Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input checked="" type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input checked="" type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input checked="" type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input checked="" type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

NGI Pointer has the broad objective of finding the people who will work to change the internet-architecture-related topics, according to European values. The Pointer programme has indeed nine different broad topics such as: Privacy-by-design; Network optimization; Limitations TCP / IP protocol; Autonomous Network operations; Internet at the Edge; Virtualization and isolation; Industrial Internet Security; Trust for New Internet / Web Users; Energy Efficiency.

The currently 24 funded projects are indeed directly or indirectly touching all the points above from either an architecture or protocol level, apart from the point “Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way”.

NGI Pointer open call was indeed addressing the “green of the internet” (the dedicated area “Energy Efficiency”), however, no suitable applications were selected for funding in this regard. This of course does not mean that the project will not have impact also on the sustainability of the internet, as this aspect will always be included in Pointer open calls. The second open call of NGI Pointer will stress more the environmental sustainability aspect to ensure receiving better applications in this sphere.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- Yes, with national policymaker. Which topic did you discuss?
- Yes, with European policymaker
- Yes, on both levels
- **Mostly No**

Since the applications and projects funded by NGI Pointer deal mainly with web architecture and protocols, the project is interacting more with engineers, developers and ICT researchers rather than policy makers.



However, the Advisory Board of NGI Pointer has representatives from standardization and governmental bodies that of course are related to policy makers, so the project receives policy advice. However, in general terms the main interactions happen with another typology of stakeholders.

D) What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5 year time frame?

- 0%
- 1-25%
- 25-50%
- **More than 50%**

Please explain your assumption above.

The majority of projects NGI Pointer is working with, are not starting from scratch. They are/were ongoing open source projects which found complementarities with the Pointer programme and therefore applied for funding.

For this reason, in the case of Pointer it is more correct to talk about “implementation” rather than “adoption” as the project is working on existing open source solutions, already adopted by a variety of users.

E) How many new jobs could be created thanks to the outcome of your project?

The wide spectrum of projects funded by NGI Pointer makes it difficult to estimate a precise number of jobs that could be created by the NGI project. As an example, Pointer is funding a team who is contributing to Solid (Social Linked Data - a web decentralization project led by Tim Berners-Lee, the inventor of the World Wide Web). The impact on labour market of Solid itself could be as wide as the web is, but by its nature Solid is not consolidated into one foundation or organisation, and therefore the possible jobs created by such initiative is difficult to estimate for its own nature.

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

Peergos

At current stage it is not possible provide a proper estimation, however NGI Pointer is aware of once case named [Peergos](#), a UK based Greek company, which had the technology fitting the Pointer programme and created the start-up around it.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

The answer is yes as NGI Pointer is funding itself projects NGI beneficiaries were working already on, before receiving the NGI funding.





H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’					X
Involving relevant stakeholders				X	
Creating new collaborations			X		
Creating new knowledge		X			
Economic impact		X			

### 3.9 NGI ATLANTIC

A) Which of the following outcome(s) is your project contributing to?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	<input checked="" type="checkbox"/>
Increased level of resilience and cyber security	<input checked="" type="checkbox"/>
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	<input checked="" type="checkbox"/>
Increased sustainability and health of the information and media ecosystem.	<input checked="" type="checkbox"/>
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	<input checked="" type="checkbox"/>
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	<input checked="" type="checkbox"/>
Increased control of internet users over their own data, so regaining data sovereignty.	<input checked="" type="checkbox"/>
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	<input checked="" type="checkbox"/>
Increased level of internet safety for all users, ensuring the promotion of diversity	<input checked="" type="checkbox"/>
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	<input checked="" type="checkbox"/>

B) Please describe in 1-2 sentences how is your project addressing the selected outcome(s) above? What was (will be) achieved thanks to the NGI support?

The ethos of the NGIatlantic.eu project is to take forward the results of the NGI topics, when the results are available and give the opportunity to experiment with excellent US teams on either EU or US experimental platforms to take these results to the next step. Therefore, the belief is that NGIatlantic.eu will eventually cover all of the NGI topics during the life of the project as the project's impacts should cover the majority, if not everyone, of the above outcomes.

The individual 3<sup>rd</sup> party projects that are funded by NGIatlantic.eu open calls will be working on the key technologies of the NGI (5G and beyond, IoT, AI, ML, big data, etc.) and covering the NGI topics, Privacy and Trust enhancing Technologies, Decentralised Data Governance, etc. as the open calls progress.

The teaming up of EU and US teams to carry out experiments in these topics will contribute to the internationalisation of the work being funded by the NGI initiative, lending much more credence and visibility to those results.

C) Have you been involved in a debate with your national policymakers or EU policymakers about issues related to the outcome(s) selected above?

- **Yes, with national policymaker. Which topic did you discuss?**
- Yes, with European policymaker
- Yes, on both levels
- Mostly No

NGIatlantic.eu has had contacts with the US policymakers (mainly funding agencies) e.g. NSF either directly, or indirectly via the project officer and also with US-based partners such as the University of Utah.

The project has also reached out to industry-led organisations engaged in policy and funding matters in relation to industries, mainly on the West coast of the US and presented the project ideas to them to see if they could generate interest to US industry and potential funding sources.

Some examples of these already have tie-ups in EU countries, (e.g. Science Foundation Ireland has an office on West coast USA and also ADVANTAGE AUSTRIA International Trade & Development, which has an office in USA, which does similar work to SFI US office in attracting industry to the USA, and teaming up with industry back in the EU).

NGIatlantic.eu is expecting results from these collaborations in upcoming calls, as it has undoubtedly been affected by COVID-19, with some of the staff having to return to their home bases.

What is in your opinion the chance that intended target groups will adopt the outcome of your project within the 5-year time frame?

- 0%
- 1-25%
- 25-50%
- **More than 50%**

Please explain your assumption above.



More than 50% because the project has a specific criterion in the open call application, where applicants need to explain how their impacts will be sustained after the project concludes.

E) How many new jobs could be created thanks to the outcome of your project?

In terms of the new jobs for the applicants based on NGIatlantic.eu funding, it is difficult to quantify as the project’s approach led to consider the key personnel in their application, would be the ones working on the project. However, in the period following the selection, the project is aware of at least one new hire that will be working on the selected project. In terms of post-project new jobs, as mentioned above, in the application form NGIatlantic.eu request applicants to describe the impact post-project period. This may have limited impact in terms of new jobs, but there should be the potential for enabling commercialisation at a later stage, which could certainly lead to new jobs, albeit difficult to quantify at this early stage.

F) Were there any start-ups created thanks to the outcome of your project? If yes, can you please provide any details?

Primarily no, because NGIatlantic.eu ethos is to boost NGI results already available with incentivising the bridging of the EU teams that created the results with like-minded US teams, so this would presuppose that the results are already available; therefore, the start-ups would have already been created.

However, there is a possibility that the project’s transatlantic testbed platforms interconnects would make a good “sandbox” type environment available to potential start-ups, which could enable new start-ups to get on the ladder for EU – US exposure with new NGI ideas/products/solutions.

G) Did you manage to raise any additional funds? If yes, how much and through which funding scheme?

As already explained, NGIatlantic.eu is continuously in contact with the US side and also via the project officer about finding US funds for their participants, and such discussions are done on a continuous monthly basis.

H) On the scale from 1 to 5 (where 1 means ‘no impact’ and 5 means ‘very high impact’), how does the (intended) outcome of your project score in the following categories? (Please put cross where applicable).

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of “NGI culture’					X
Involving relevant stakeholders					X



<b>Creating new collaborations</b>					X
<b>Creating new knowledge</b>					X
<b>Economic impact</b>					X



## 4 QUALITATIVE OVERVIEW

The objective of this section is to provide a qualitative overview of the NGI RIAs and CSAs interviewed, by the identification of common trends along each of the questions of the qualitative surveys.

### 4.1 WHICH OF THE FOLLOWING OUTCOME(S) ARE THE NGI RIAs AND CSAs PROJECT CONTRIBUTING TO?

Increased sustainability of Internet in terms of limiting harm to the planet and ensuring that input materials are sourced in a fair and ethical way.	71%
Increased level of resilience and cyber security	71%
Increased number and quality of available infrastructures necessary for secure online interactions and trustworthy online identities.	85%
Increased sustainability and health of the information and media ecosystem.	49%
Increased number of new business models leading towards decentralising power, away from a handful of dominant players.	85%
Increased ability for internet users to provide meaningful consent, opt out, and self-govern their interactions with internet services.	85%
Increased control of internet users over their own data, so regaining data sovereignty.	85%
Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools	28%
Increased level of internet safety for all users, ensuring the promotion of diversity	71%
Increased accessibility of internet providing everyone with the ability to shape and harness its power.	85%

Overall, the NGI RIAs and CSAs are covering the majority of the outcomes mentioned above, with the exception of “Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools”.

### 4.2 PLEASE DESCRIBE IN 1-2 SENTENCES HOW ARE NGI RIAs AND CSAs ADDRESSING THE SELECTED OUTCOME(S) ABOVE? WHAT WAS (WILL BE) ACHIEVED THANKS TO THE NGI SUPPORT?

With the exception of “Decreased degree of perpetuating existing inequalities caused by AI and Machine Learning tools”, the above-mentioned outcomes are tackled by NGI funded projects with various solutions in the following domains: security & privacy (with blockchain and AI technologies and/ or applications); human centric design (including SSI and ledger technologies); sustainability of the internet and of infrastructures (e.g. browsers using less CPU and therefore consuming less energy or smart building technologies).

#### 4.3 HAVE NGI RIAs AND CSAs BEEN INVOLVED IN A DEBATE WITH NATIONAL POLICYMAKERS OR EU POLICYMAKERS ABOUT ISSUES RELATED TO THE OUTCOME(S) SELECTED ABOVE?

The majority of NGI RIAs (not CSAs such as NGI FORWARD) do not interact with policy makers with the exception of NGIO PET, NGIO Discovery and NGI ATLANTIC.

The reasons behind this lack of interactions could be multiple, on one hand, the NGI projects appear to be more focused on types of stakeholders such as SMEs and research institutes to foster the progress of the projects they are funding, from both an academic/research and business point of view.

On the other, with the exception of NGIO PET and Discovery – which have always had relations with policy institutions in the Netherlands due to the nature of NLNET foundation – it appears to be challenging for both sides (NGI beneficiaries and policy makers) to find common and mutual interests.

This aspect of course does consider NGI FORWARD activities, as it has political institutions as one of the main target group with a view to develop research and political roadmaps.

#### 4.4 WHAT IS THE CHANCE THAT INTENDED TARGET GROUPS WILL ADOPT THE OUTCOME OF NGI PROJECTS WITHIN THE 5-YEAR TIME FRAME?

The expectations and average answer to this question is quite high as it ranges from 25 to 50%.

The reasons could be essentially listed as:

1. The outcomes developed by NGI beneficiaries are being adopted and used by the specific NGI community itself (with open source and scalability aspects being of core importance) and therefore they are already being used;
2. The outcomes developed by NGI beneficiaries are meant to solve problems and for this reason, they will be adopted;
3. Business sustainability criteria are included in the open calls and therefore only the most economic viable projects are being funded
4. The NGI open calls' winners are already established realities/ organisations and therefore they will probably continue to work on the proposed solutions after the NGI funding expires
5. The NGI projects already provide/ will be providing business acceleration services in various forms and phases and therefore, this increases the chance of adoption in the 5-year timeframe

#### 4.5 HOW MANY NEW JOBS COULD BE CREATED THANKS TO THE OUTCOME OF YOUR PROJECT?

Overall, providing an answer is not possible for the majority of NGI projects, however, as direct side impact, several NGI beneficiaries are hiring different profiles in order to work on their projects or, as per the case of NGI EXPLORERS, NGI beneficiaries are being hired or



received partnership proposals to continue to work with US institutions outside the NGI funding framework.

#### 4.6 WERE THERE ANY START-UPS CREATED THANKS TO THE OUTCOME OF NGI PROJECTS? IF YES, CAN YOU PLEASE PROVIDE ANY DETAILS?

The majority of the NGI projects answered no. One of the motivations is that, apart from few cases where a group of individuals were invited to submit a joint application, the applications to the NGI open calls are submitted by already established entities.

#### 4.7 DID NGI PROJECTS MANAGE TO RAISE ANY ADDITIONAL FUNDS? IF YES, HOW MUCH AND THROUGH WHICH FUNDING SCHEME?

The majority of NGI projects will provide this kind of support to their beneficiaries during their business ignition phases or are in contact with EU or US institutions to raise additional funds. However, it appears that no additional funds were raised by or thanks to the NGI projects.

It is to be noted the case of NGI0 PET and Discovery, where, due to the nature of NLNET foundation, NGI beneficiaries may find opportunities to raise additional funds withing the foundation itself.

#### 4.8 ON THE SCALE FROM 1 TO 5 (WHERE 1 MEANS 'NO IMPACT' AND 5 MEANS 'VERY HIGH IMPACT'), HOW DOES THE (INTENDED) OUTCOME OF THE NGI PROJECTS SCORE IN THE FOLLOWING CATEGORIES?

Category	1-No impact	2- Minor impact	3- Medium impact	4- High impact	5-Very high impact
Contribution to the uptake of "NGI culture"					X (4,83)
Involving relevant stakeholders				X (4,29)	
Creating new collaborations				X (4,57)	
Creating new knowledge				X (4,29)	
Economic impact			X (3)		

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## 5 CONCLUSIONS

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From TETRA services point of view, in the light of the open calls' metrics and qualitative interviews conducted, three aspects shall be taken into consideration for future project activities targeting NGI beneficiaries:

1. Open Source businesses

Open Source shall be a topic treated more intensively through TETRA training and mentoring services to be provided to NGI beneficiaries.

Open Source is indeed a common factor present in the majority of projects funded by the NGI initiative and for this reason - while this could be less applicable to services such as Access to international public contracts - services such as IPR Advisory; Transversal competences and soft skills; New markets, sales and business models; Investment readiness; Qualified introductions and match-making services; Tech-transfer services to Digital Innovation Hubs; Facilitating participation in a well-established pitching competition, shall provide consultancy and training to NGI beneficiaries taking Open Source, and more specifically, how to accelerate an Open Source business, in accurate account to shape and tailor their benefits according to the actual needs, solutions and projects of the majority of NGI beneficiaries.

2. "Problem solving attitude"

From the qualitative interviews conducted, a common trend of NGI beneficiaries is the "problem solving attitude". Meaning that some NGI beneficiaries apply for NGI open calls with a view to solve existing problems or inequalities of the internet, rather than seeking or striving to establish a business out of the projects they are implementing.

This of course does not preclude or limit TETRA from providing its business acceleration services to the beneficiaries, however, TETRA may take into consideration tailoring certain types of trainings with a view to "enhancing NGI beneficiaries' capacities to solve existing problems of the internet" (e.g. to increase number of new business models leading towards decentralising power, away from a handful of dominant players, organise a training on how to attract investments/ fundraising for companies working on distributed ledger technology), with the objective of providing services tailored to the specific mission or ambition of the NGI beneficiaries.

3. Finding complementarities with business acceleration services already provided by NGI RIAs

With special regard to NGI RIAs such as LEDGER, NGIO PET, NGIO Discovery, ESSIF LAB, due to the fact these projects are/ will be providing their beneficiaries with business acceleration services, it will be of core importance for TETRA to identify complementary topics and services for these specific projects to avoid overlapping and maximise the possible economic impact of their NGI beneficiaries.

Additionally, the following measures could be taken into consideration by TETRA Consortium to improve project services and overall project impact:



- Identification of success stories from NGI 3<sup>rd</sup> parties to deliver “premium services”: taking the [Open call for expression of interest](#) as an example of “premium service”, TETRA, with the support of NGI RIA and CSA projects, may identify success stories/ successful projects/ most promising projects (in terms of business sustainability) as beneficiaries of “premium services” (services with either a limited number of possible beneficiaries or requiring intensive workload and time to be deployed).

Additional examples of premium services might be:

- Qualified introductions to investors and match-matchmaking
- Mentoring to secure participation in high-profile pitching competitions

Such approach may serve as incentive for NGI 3<sup>rd</sup> parties to contact TETRA and ask for further information on how to benefit from those services.

- Implementation of coaching and mentoring programmes: with a similar objective of the above-mentioned measure – incentivising NGI 3<sup>rd</sup> parties to contact TETRA to benefit from intensive and tailored services – and considering the initial pool of NGI 3<sup>rd</sup> parties who participated in the first online Build-up bootcamp, TETRA may be in the position of selecting the learning needs of the projects and define tailored master plans which will include personalised capacity building activities.

The creation and implementation of the master plans, by directly involving NGI 3<sup>rd</sup> parties in their creation, will serve as an important tool to liaise with NGI beneficiaries and would certainly be a valuable asset to be promoted and disseminated by TETRA through the NGI community.

