



# First impressions of global users of underground laboratories

## Report

### WP3.2. First Impression Test

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EUROPEAN UNION

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## 1. INTRODUCTION

A fundamental shift in the B2B sector involves the growing influence of digital communication channels in customer purchasing decisions. B2B digital content marketing consists of creating, distributing, and sharing relevant, compelling, and timely content to engage customers at the appropriate point in their buying consideration processes. It encourages them to convert to a business building outcome. Customer engagement includes establishing a deeper and more meaningful connection between the service provider and the customer that continues over time. Customer engagement as a concept helps firms understand customer needs, fosters customers' participation in the product/service development process, makes customers available to provide feedback on strategies and products and turns them into product advocates. Engaged customers can play an important role when creating new services and products.

CRM can be defined as implementing specific technology and broadly and strategically as a holistic approach to managing customer relationships by developing profitable, long-term relationships with key customers, customer segments and other key stakeholders. The main goal of CRM is to enhance customer relationships. Understanding the customer is vital and requires different functions to cooperate closely to ensure the service provider has the best possible understanding of its customers.

The customer journey (buying process) consists of five stages: awareness, consideration, acquisition, service, and loyalty. In this report, we concentrate on awareness through the outcomes of the First Impression Test.

## 2. THE AIM

The activity aimed to understand how existing customers were and potential customers are aware of the possibilities Underground Laboratories could offer to meet the expectations presented at the EUL innovation platform. Of course, as all the ULs are unique in their characteristics and possibilities, it is challenging for all sites to meet all the requirements. However, besides the technical characteristics, the first contact, information availability, etc., are important. Making the difference between the customer is a critical point of the customer journey, deciding whether the contact will be continued or immediately terminated. The First Impression test concentrated on the initial contact between the real potential customer and the UL. The test result is the customer experience data to help optimise the first contacts and transfer good practices between ULs.

## 3. THE CONCEPT

The idea is to have people from companies and research institutions and invite them to test the first contact with the Underground Laboratories. The emphasis is on having people who could be Real Existing Potential Users (REPU) for the Underground Laboratories. They do not yet need to be actual users working with specific ULs but should have the appropriate potential to do so in the future. The REPU candidates were planned to be recruited from the networks of project partners.

The initially planned test consisted of three stages:

1. REPU, with the help of a list provided by EUL members, should select the UL that interests them and send an inquiry to the UL. The inquiry should relate to cooperation in the field in which REPU operates.
2. UL should respond by presenting its offer
3. The test is completed, and the results are evaluated using a survey.

After piloting the First Impression Test modified into an online questionnaire with two parts:

1. REPUs to share their First Impressions of any underground laboratory they have been operating.
2. REPUs to evaluate the usefulness of the EUL Web-Based Tool<sup>1</sup> for someone looking for a new UL to operate at.

The updated FIT test was distributed to the project partner and the global networks.

Other information will also be collected in collaboration with A2.1 and A2.2; the main source will be the REPU portfolio, including the analysis of REPU activity at the WBT (collected in A2.1).

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<sup>1</sup> <https://undergroundlabs.network/underground-laboratories>

### 3.1. Communication Aims

The activity receives input from the UL managers and current and potential customers. The outcomes of the First Impression Test increases the knowledge of ULs, research institutes and other organisation related to the coordination, management and marketing of the ULs. They identify the different use cases, Customer profiles and behaviours, and marketing venues.

The result will change the behaviours of representatives of research institutes and companies (users, decision-makers and influencers) who will regard the ULs as innovation platforms suitable for business development.

### 3.2. Partner involvement

The PP9 NCBJ leads the activity, and they are responsible for developing and analysing the FIT Test. Partners from PP1, PP3, PP4, PP6, PP10 and PP13 (UO, USK, SKB, TUBAF, TalTech, Khlopin, respectively) contribute to the development and analysing of the FIT test. Additionally, all partners provide access to their collaboration networks for acquiring Real Existing Potential Users (REPU)

### 3.3. Output: The FIT Report

This output report contains the description of the REPU, background information of the participating organisation and their experiences with underground laboratories, whether as users, managers or collaborators.

Additionally, the outcomes are used for developing further marketing strategies for the ULs to engage with the future prominent users of underground laboratories.

## 4. THE FIRST IMPRESSION TEST

**In the pilot phase:** the REPU were recruited from the networks of the partner organisations. The requirement was that the REPU could be a possible user, which prevented many of the contacted organisations from contributing to the piloting. However, with the pilot REPU, the planned questionnaire was updated to provide more specific information for the project. Additionally, emphasis was put on finding solutions for the REPU recruitment, and the solution was to use WP2.1. BIG DATA to find actual users from different organisations and institutions worldwide. More than 1 600 UL users were identified from 8 600 WoS UL related articles with correct and existing contact details.

**The First Impression Test:** The test was modified into a two-part online questionnaire, the first part concentrating on the First Impressions of the actual users of global underground laboratories. The REPU contact details were achieved from the WP2.1 BIG DATA analysis. The invitations to participate in the questionnaires were sent to 1 654 people (with active email accounts) using a specialised mass-marketing service. The REPU questionnaire is attached as Appendix 2 (p.2-5) and the WBT questionnaire as Appendix 2. (p. 5-7)

### Statistics:

Of the 1 654 invitations, 447 people (27.3%) opened the email, and 208 (13% of all, 46.5% of those who opened the invitation) followed the link to the First Impression Test. GDPR requests to be moved from the database were received from 90 people. See Appendix 1 (p.5-6) for detailed geographical distributions of invitation openers.

## 5. THE RESULTS OF THE FIRST IMPRESSION TEST

Detailed results are presented in Appendices 3 (EUL partners and network) and 4 (global network), but here we present the key outcomes of the results. The number of replies from the EUL-related and the global network was rather low, 13 and 25, respectively. This report will concentrate on the global answers, while the EUL-linked answers can be seen in Appendix 3.

### 5.1. Background of REPU

The user base of the underground laboratories is global. From the 25 answers, we have already 13 different countries represented (See Fig. 1.) on several continents. Similarly, from they are operating in 13 different ULs. (see Fig. 2.).

Your first contact with underground laboratories (UL)

In which country do you work?

25 odpowiedzi

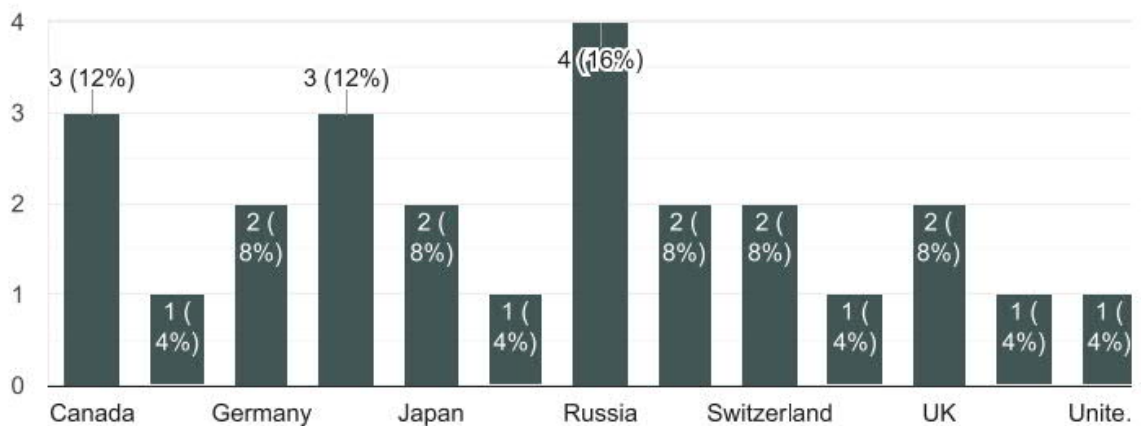


Figure 1. The REPU represent 13 different countries.

In which country your underground laboratory is located? (provide the most important)

25 odpowiedzi

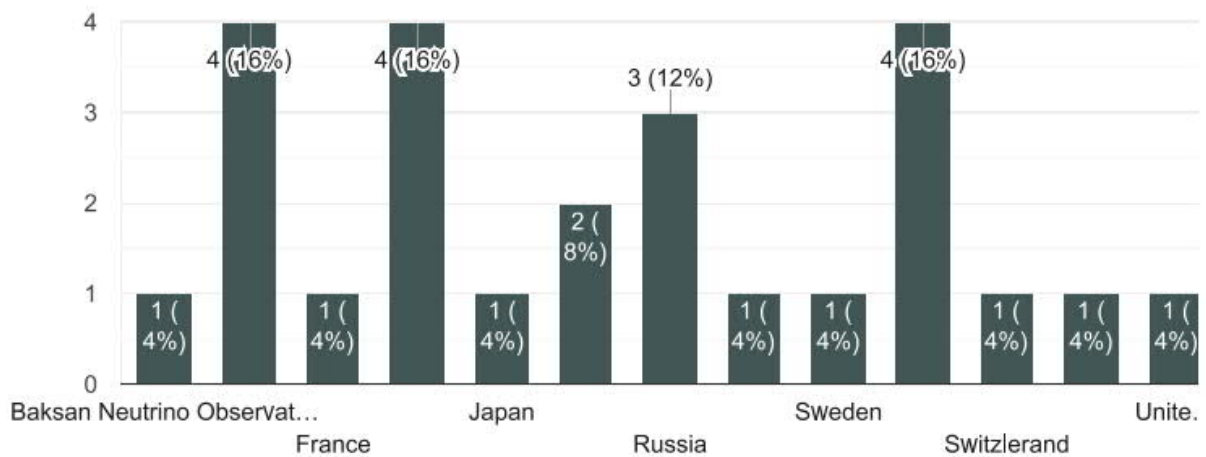


Figure 2. 13 different Underground laboratories where the REPUs are currently working.

Interestingly, once the cooperation between a USER and a UL has been established, the cooperation last over several years. Of the 25 answers, 20 have worked with the same laboratory for more than four years (see Fig. 3.). The reasons for choosing that specific underground laboratory varied from being invited by a consortium already operating the UL (52%) to contacting people who had operated at the UL earlier (20%). Only 12% were openly looking for a UL.

From the sales and aftersales point of view, the UL users are faithful customers; they will stay as customers once they set in. However, it is important to note that most of the answers are from within the scientific communities, and thus, the use cases are limited to scientific experiments. Many modern experiments and their consortiums are constructed to run for several years, decades even.



How long have you been cooperating with this underground laboratory

25 odpowiedzi

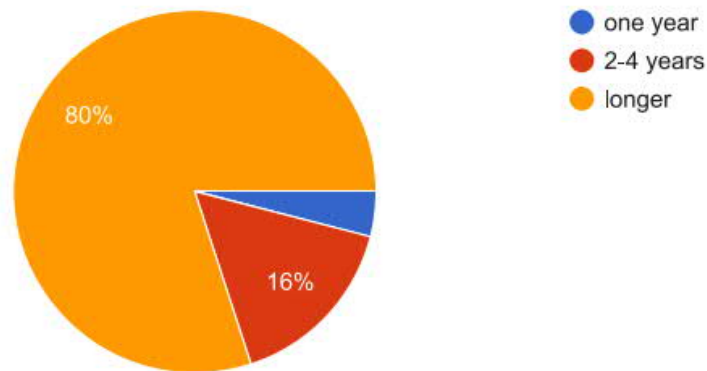


Figure 3. Based on the REPU's replies, once the cooperation between the Underground Laboratory and USER, the cooperation duration is in years.

## 5.2. REPUs' First Impressions from ULs

We all face situations for the first time, and the impressions it leaves can have a long-lasting effect. The question related to the first contact and the ease of obtaining information describes the challenges the EUL laboratories are dealing with in understanding the REPUs' needs and having sufficient data to continue with further talks. However, even if the data and understanding are at a good level, it all comes to person-to-person interaction and, thus, Customer Management Processes (See WP3.1. for more details on the CRM) to finally close the deal.

The first contact between people and businesses is always the most important. One should rely on having ease of contact with the right persons for the first contact to proceed to continue discussions. See Fig. 4. for how the REPUs had experienced the contact establishment process.

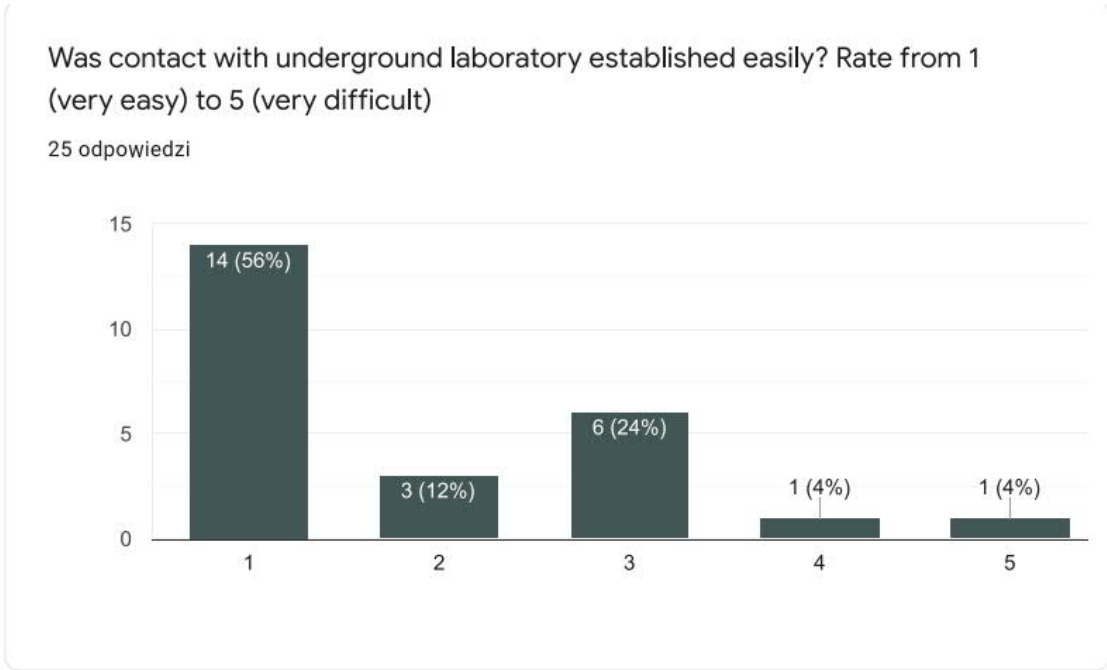


Figure 4. The first contact is important when establishing a new partnership or business relationship. Some challenge is related to the fact that not all Uls have dedicated customer relationship manager (see Fig. 6.)

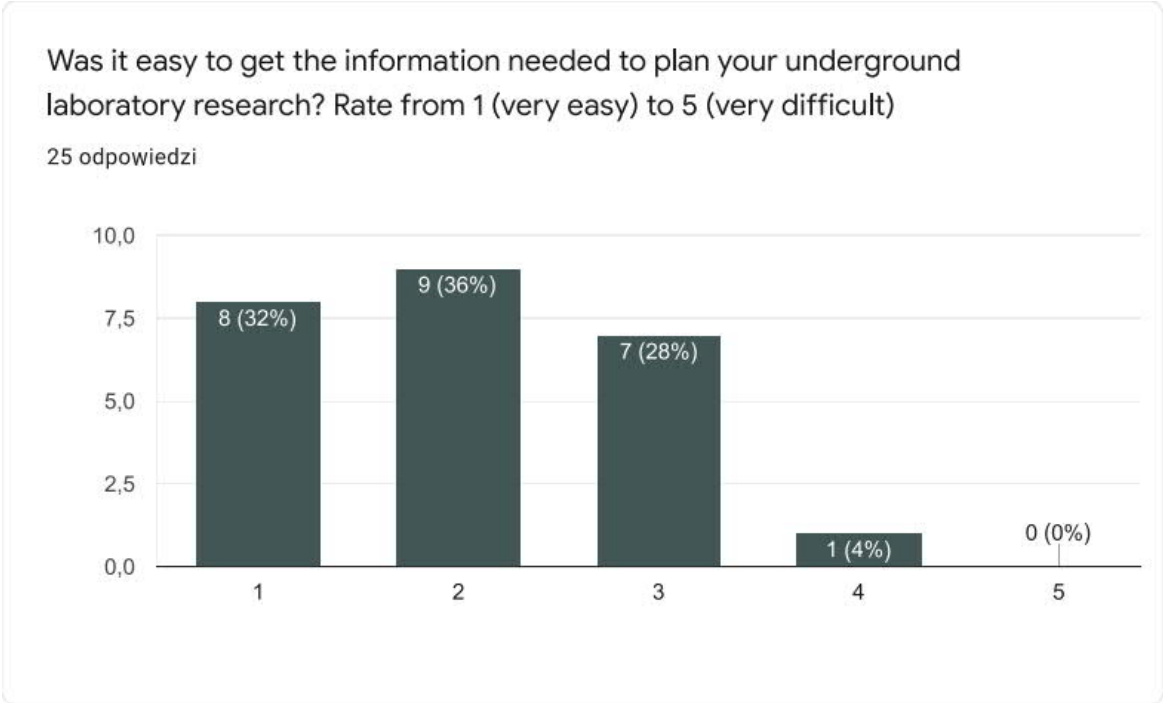


Figure 5. Most global underground laboratories frequently publish new or updated data on their facilities' characteristics, technological advances and new services. The data and further information links are also located on their websites.

The characterisation of the underground laboratories is important for the site managers and customer relationship managers to provide accurate information for the real existing potential users. The characterisation data can consist of but is not limited to geological, geochemical, technical monitoring, natural background radiation, materials used, ventilation, hall sizes, operational restrictions, and services available on- or offsite.

The existence and availability of the abovementioned characterisation data is an important factor for the REPU; it is the key to planning any activity in an underground laboratory. Fig. 5. shows how the different REPU experience retrieving such information from the underground laboratories.

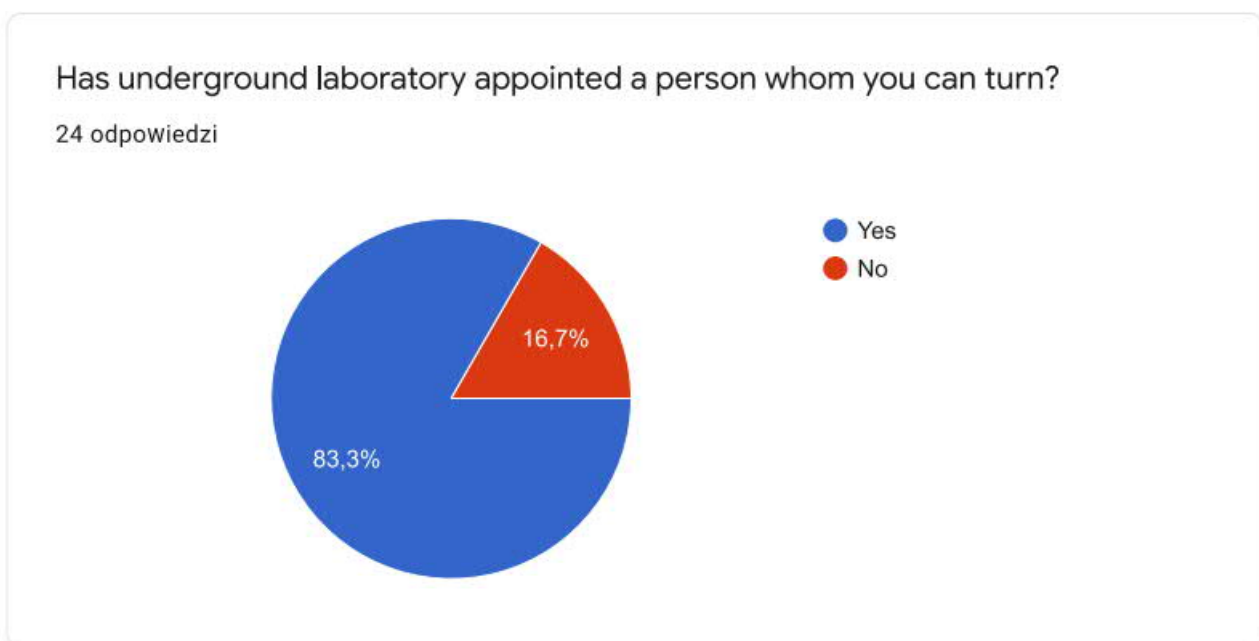


Figure 6. The lack of customer relationship management can make the first contact and the other agreement process challenging.

The key account manager or account manager are typical terms for customer-specific support services. The underground laboratories, which usually are scientific- or industrial-oriented, have the technical and scientific expertise but might still be in the development phase for customer management. Based on the experiences of the REPU, more than four-fifths have a dedicated person (see Fig. 6.), whether an account manager or a normal contact point depending on the maturity of the UL's customer relationship management process.

After a while, the real potential existing user has transformed into the real existing user. Customer relationship management continues to play a role in the form of customer support and cooperation between the underground laboratory's staff and the user. Based on the FIT-test (Fig.

How do you rate your cooperation with underground laboratory? From 1 (very good) to 5 (very bad)

25 odpowiedzi

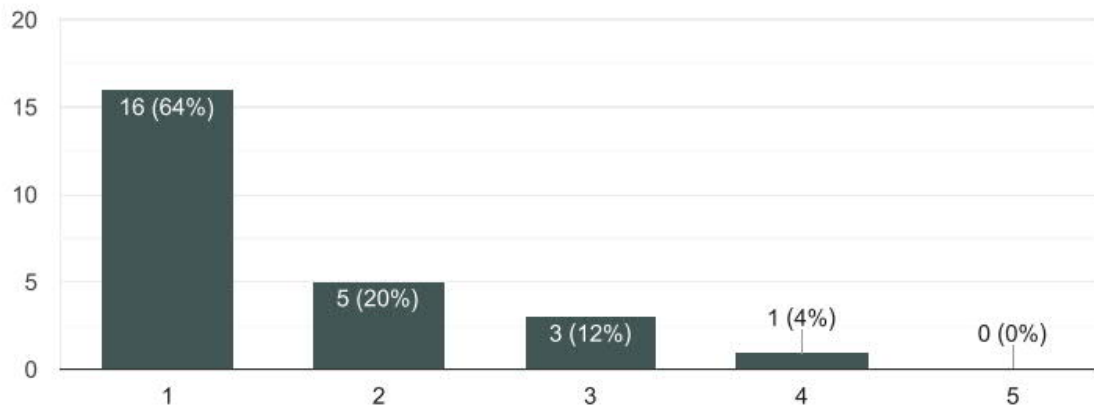


Figure 7. The majority of the REPU's participating in the FIT have evaluated their cooperation as users and the underground laboratory as very good or good.

### 5.3. REPU's First Impressions from EUL WBT

The second part of the First Impression Test concentrated on the EUL web-based tool and its usability and benefits for the real existing potential users. As the FIT test was sent to more than 1 600 REPU's around the globe, many of the receivers had not heard about the EUL project or the EUL association before.

Based on the FIT of the EUL website (see Fig. 8.), most of the recipients evaluated the website as either good or very good, while 30 % considered it neutral. Some of the written feedback (Fig. 9.) indicates the website's simplicity and that more laboratories should be included, and more site-specific information should be included. The web-based tool's usability (Fig. 10.) is also evaluated between very good and bad, the medium being good (13/23 replies).

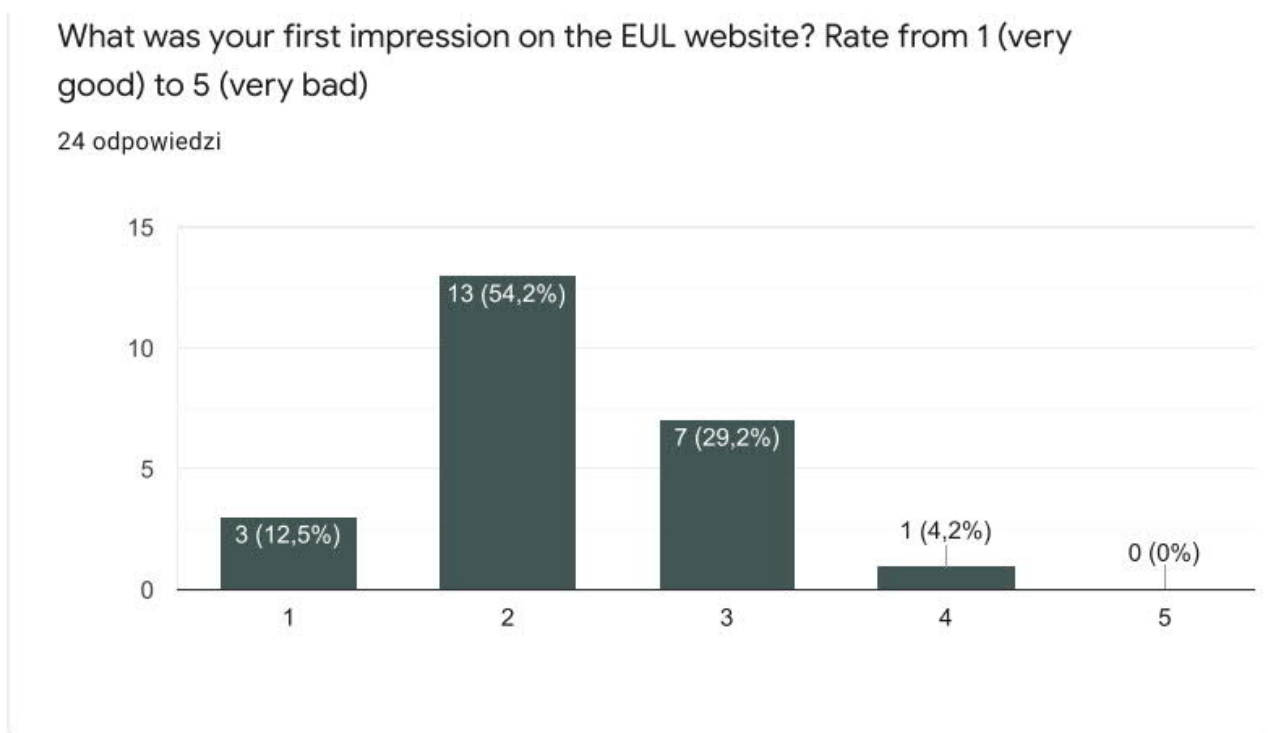


Figure 8. rating of the EUL website. Most find it good or very good, but development is encouraged.

## Why?

14 odpowiedzi

Necessary information and correspondence are presented in the website.

Not all labs are listed that are important

The site is working, but there are no specific characteristics of underground rooms

It might be useful to present there more detailed information on conducting researches.

Interaction options are clearly presented

My first interests regarding UG labs is their depth (in m.w.e.),  $\mu$  flux, and the available volume

Easy to navigate, intuitive

was not aware of it; first time I learn it exists

Simple clear

Figure 9. Written feedback from the EUL website First Impression Test. Feedback consists of both in favour and constructive criticism. Development should provide more specific information on the existing facilities and the research already conducted at the UL.

How would you rate the usability of the EUL website? Rate from 1 (very good) to 5 (very bad)

23 odpowiedzi

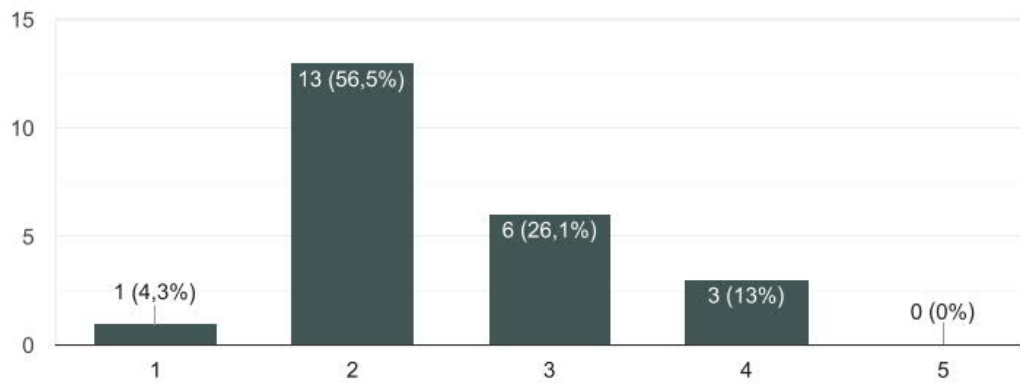


Figure 10. Most of the REPU's think that the site's usability is good according to the medium value.

How would you rate the content of the EUL website? Rate from 1 (very good) to 5 (very bad)

22 odpowiedzi

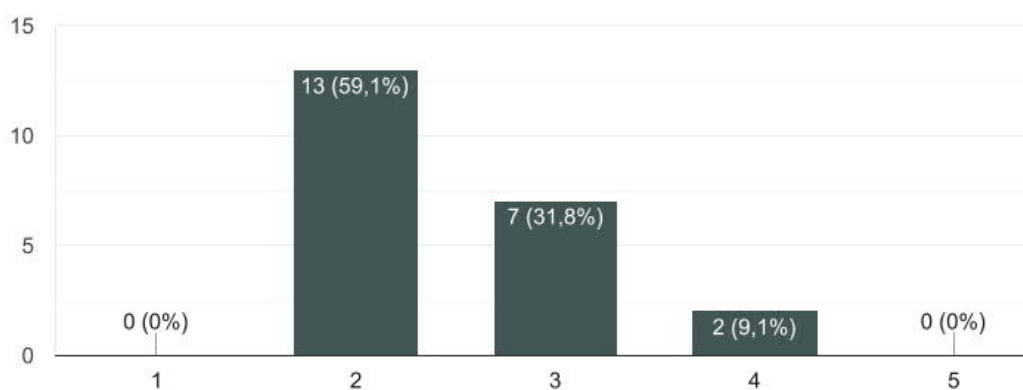


Figure 11. The relevance of the content most REPU's considered being neutral or good.

Contentwise the EUL WBT (Fig. 11. & 12.), the majority evaluated the relevance of the data from neutral to good, emphasising the good side. Some of the more or most interesting parts were related to the characterisation data of underground laboratories.

Additional info or suggestions (Fig. 13. & 14.) were related to the data summary of the EUL laboratories, wider technical information, geological, geochemical and geophysical information, existing research and additional references to the site, research and researchers.

What section or content of the EUL website do you find more interesting and useful for your future research work? Why?

14 odpowiedzi

Site characterization content since I'm not familiar with European's geology.

the depth at which the rooms are located

The section Callio lab in Finland. It is one of the deepest laboratories in Europe. There are large halls appropriate for geophysical researches using neutrino.

Site characteristics

no time to really read it with attention

The information on each lab

Interest is only in what other labs are doing

Nothing really.

Knowing these labs exist and what their focus is.

Figure 12. Freeform comments on the content.



## What information is missing?

14 odpowiedzi

Additional information of characteristics of groundwater chemistry and hydrogeology.

room sizes, access to them, distance to nuclear power plants, estimates of neutron fluxes

From my point of view there missed information about other large European laboratories like Gran Sasso or Modana etc. Probably because they mostly used as basic researches centres.

More technical information on backgrounds at the facilities

A table etc with unified information (depth, space, personnel, access, facilities etc) for every lab

no time to look

Maybe include something about the research already being conducted in the URL and the current research organisations each lab is collaborating with

*Figure 13. Development and improvement suggestions from the REPU's related to the content of the EUL WBT.*

## 6. CONCLUSIONS

The First Impression Test provided a useful tool to evaluate the First Impressions of Real Existing Potential Users (REPUs). The idea to use A2.1. based BIG DATA to find global users of Underground Laboratories gave more than 1 600 potential REPUs, from which more than 200 followed the actual FIT test. However, only 25 took part in the actual test phase of those. The REPUs represented global users of Uls, representing 13 countries and 13 different Uls worldwide. So even though the number was small, the geographical coverage was good.

The First Impression Test provided us with valuable information on how the users have ended up using any of the underground laboratories. Thus whom the EUL should target in marketing. Most of the REPUs (52%) had joined already existing consortium operating at the UL. People with experience operating at a UL were contacted in 20 % of cases, and only 12% were openly looking for a UL. In order to reach out to the potential pool of UL users, one needs to be present at events & venues where the different underground laboratories are presented, e.g., seminars, workshops and scientific articles.

From the sales and aftersales point of view, the UL users are faithful customers; 80% of the users have been a customer of a UL for more than four years, 16% between 2-4 years and the rest a year or less. However, it is important to note that most of the answers are from within the scientific communities, and thus, the use cases are limited to scientific experiments. Many modern experiments and their consortiums are constructed to run for several years, decades even.

The REPUs need for an appointed contact person (83% of ULs had) with whom to establish the connection, and details for any activity are very important in taking the first contact to an actual activity at a UL. The existence and availability of UL characteristics data are important, both characterising the Uls and especially their facilities. It was shown in both the REPUs UL comments and EUL WBT comments.

From the EUL WBT analysis, the REPUs rated the tool neutral- good with weight on the good side. More information was hoped to be included related to the Uls geoscientific data, cosmic-ray muon, hall dimensions and especially the research and the researcher operating at the site. This is an important note also from the earlier mentioned marketing point of view of Uls.

# Appendix 1

## Report from the mailing campaign

This is a report (in Polish) received from the mailing company that sent out e-mails asking to participate in the survey.

### Summary:

- Page 1: Original email requesting to participate in the survey
- Page 2: Audience activities:
  - e-mails were sent: 1654 and all addresses were active
  - recipients opened: 447 (27.3%)
  - recipients clicked a link from the email: 215 (13%)
  - Recipients demanded the removal of their e-mail address from the database pursuant to the GDPR: 90 (5.44%)
- Page 3: Clicks on links attached to the e-mail:
  - Clicks on link to the survey form: 208 (46.5% of those who opened the e-mail)
  - clicks on other links related to EUL / BSUIN (only the address "https://freshmail.pl? ...", the second one from the bottom is related to the mailing company)
- Page 4: Geolocation
  - How many e-mail openings ("Otwarcia") and clicks ("Kliki") on any link came from a given country
- Page 5: The e-mail applications used to open the e-mail
- Page 6: like page 4, but not by country but by internet domains

# Raport z kampanii



FIT z dnia 03.11.2021

Nazwa nadawcy	Empowering Underground Laboratories Network Usage (EUL)
Email nadawcy	eul@ptflodz.pl
Temat	Underground laboratory survey
Czas wysyłki	5 Listopad 2021 13:44



Email not displaying correctly? [View it in your browser](#)



Dear Sir or Dear Madam!

I kindly ask you to fill in a short questionnaire regarding your contacts with underground laboratories.

This request is related to a project aimed at better use of the potential of underground laboratories in the Baltic Sea region. The EUL (Empowering Underground Laboratories network usage) project, which is a continuation of the BSUIN (Baltic Sea Underground Innovation Network) project, is funded by the European Union as part of the INTERREG Baltic Sea program.

I am writing to you because you are listed as a corresponding author in an article related to underground laboratories (we found it by searching public databases).

The questionnaire I am asking you to fill out concerns your experience in establishing first contacts with underground laboratories with which you are now working. It seems to me that this is a critical moment for further cooperation. The results of the survey help (perhaps) define the difficulties faced by the person starting the cooperation.

It should take about 8 minutes to complete the questionnaire.  
Thanks in advance for your time

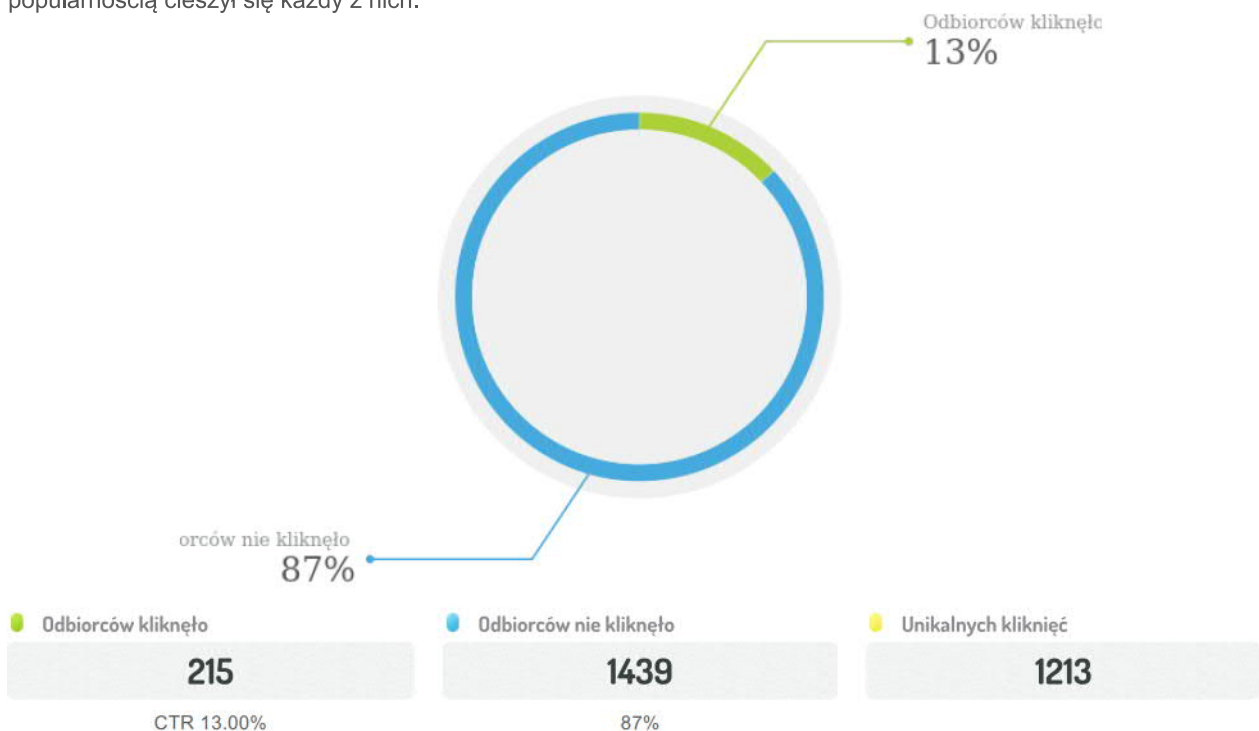
Karol Jędrzejczak  
Cosmic Ray Laboratory  
National Centre for Nuclear Research  
.28 Pułku Strzelców Kaniowskich 69  
90-558 Łódź (Poland)



# Linki

3<sup>/6</sup>

Sprawdź jak przedstawiają się statystyki dla poszczególnych linków w Twojej kampanii. Dzięki temu dowiesz się, jaką popularnością cieszył się każdy z nich.



Link (URL)	Unikalne kliki	Wszystkie kliki
<a href="https://forms.gle/ShQRwNjvT2FewjDX6">https://forms.gle/ShQRwNjvT2FewjDX6</a>	208	229
<a href="https://undergroundlabs.network/underground-laboratories">https://undergroundlabs.network/underground-laboratories</a>	175	213
<a href="http://bsuin.eu">http://bsuin.eu</a>	169	173
<a href="#">@UndergroundLabs.network</a>	166	239
<a href="#">balticregbsuin</a>	166	178
<a href="https://freshmail.pl?utm_source=doklejka_designer&amp;utm_medium=email&amp;utm_ca...">https://freshmail.pl?utm_source=doklejka_designer&amp;utm_medium=email&amp;utm_ca...</a>	165	184
<a href="#">@BalticRegBSUIN</a>	164	237

# Geolokalizacja

4/6

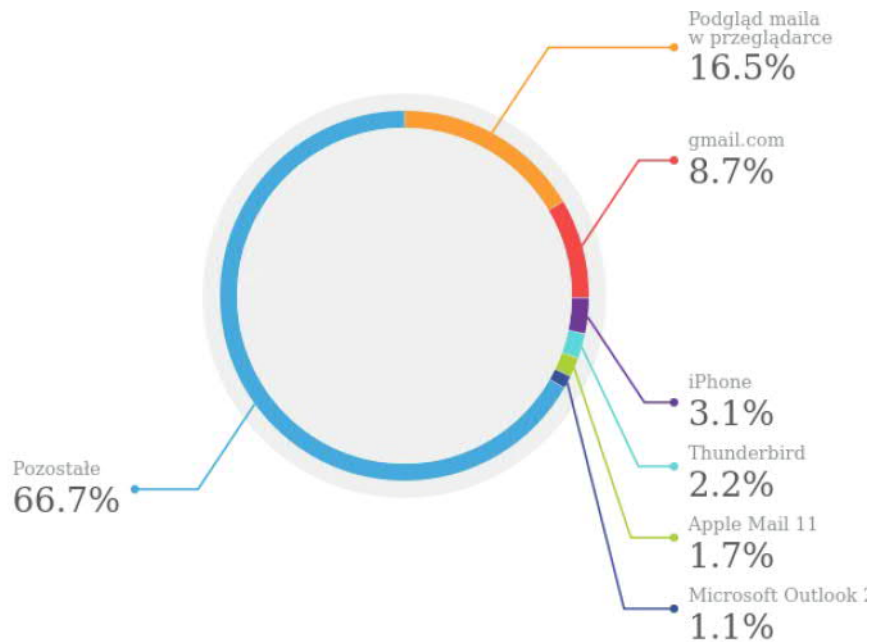
Raport dostarcza informacji o tym, ile osób w poszczególnych województwach otworzyło maila. Określana jest na podstawie IP odbiorcy. Pamiętaj, że internet mobilny wskazuje zawsze województwo mazowieckie a łącze ADSL może identyfikować sąsiednie województwa.

Województwo	Otwarcia	Kliki
United States	318	149
United Kingdom	36	27
Italy	24	6
China	23	13
France	22	3
Russian Federation	19	5
Switzerland	14	2
Australia	14	12
(unknown)	14	13
Canada	13	3
Spain	11	4
Germany	10	3
Poland	9	4
Korea, Republic Of	9	2
Japan	7	1
Sweden	3	0
Czech Republic	3	0
Portugal	2	1
Hong Kong	2	1
Mexico	2	1
Taiwan, Province Of China	1	1
Ukraine	1	1
Netherlands	1	1
Norway	1	0
Turkey	1	1
Denmark	1	0
Ireland	1	0
Argentina	1	1

# Aplikacje pocztowe

Poznaj statystyki dla aplikacji pocztowych lub systemów operacyjnych za pomocą, których Twoi odbiorcy odczytują wiadomości. Dane dotyczą otwartych maili.

## Najpopularniejsze aplikacje



## Jak odbiorcy sprawdzają pocztę



Aplikacja pocztowa	Popularność	Odbiorcy
<b>Podgląd maila w przeglądarce</b>	<b>16.54%</b>	<b>233</b>
<b>gmail.com</b>	<b>8.73%</b>	<b>123</b>
<b>iPhone</b>	<b>3.05%</b>	<b>43</b>
<b>Thunderbird</b>	<b>2.20%</b>	<b>31</b>
<b>Microsoft Outlook</b>	<b>1.99%</b>	<b>28</b>
Microsoft Outlook 2013	1.06%	15
Microsoft Outlook 2000, 2003, Express / Windows Mail	0.78%	11
Microsoft Outlook 2016	0.14%	2
<b>Apple Mail 11</b>	<b>1.70%</b>	<b>24</b>



# Najpopularniejsze domeny

6/6

Raport zawiera informację o zachowaniach odbiorców ze względu na domenę adresu email. Domena jest prezentowana, jeżeli udział procentowy jest większy lub równy 0.01 %. Prezentowane jest maksymalnie 25 najpopularniejszych domen.

#	Domena	Wysłane	Otwartych	Klikniętych	Odbijających
1	<b>Grupa Google</b>	48 	24 50.00%	1 2.08%	0 M0 / T0
2	<a href="#">ihp.ac.cn</a>	29 	5 17.24%	0 0.00%	0 M0 / T0
3	<a href="#">lanl.gov</a>	24 	0 0.00%	0 0.00%	0 M0 / T0
4	<a href="#">lbl.gov</a>	24 	13 54.17%	1 4.17%	0 M0 / T0
5	<a href="#">manchester.ac.uk</a>	20 	2 10.00%	1 5.00%	0 M0 / T0
6	<a href="#">bgr.de</a>	19 	0 0.00%	0 0.00%	0 M0 / T0
7	<a href="#">nnl.co.uk</a>	19 	19 100.00%	19 100.00%	0 M0 / T0
8	<a href="#">snolab.ca</a>	18 	5 27.78%	0 0.00%	0 M0 / T0
9	<a href="#">lngs.infn.it</a>	18 	4 22.22%	3 16.67%	0 M0 / T0
10	<a href="#">jaea.go.jp</a>	17 	0 0.00%	0 0.00%	0 M0 / T0
11	<a href="#">fnal.gov</a>	14 	1 7.14%	0 0.00%	0 M0 / T0
12	<a href="#">sandia.gov</a>	14 	1 7.14%	0 0.00%	0 M0 / T0
13	<b>Grupa Yahoo</b>	13 	5 38.46%	0 0.00%	0 M0 / T0
14	<a href="#">kaeri.re.kr</a>	12 	4 33.33%	0 0.00%	0 M0 / T0
15	<a href="#">owl.phy.queensu.ca</a>	12 	2 16.67%	0 0.00%	0 M0 / T0
16	<a href="#">westlakes.ac.uk</a>	11 	0 0.00%	0 0.00%	0 M0 / T0
17	<a href="#">stanford.edu</a>	11 	0 0.00%	0 0.00%	0 M0 / T0
18	<a href="#">nagra.ch</a>	10 	8 80.00%	8 80.00%	0 M0 / T0
19	<a href="#">sheffield.ac.uk</a>	10 	3 30.00%	1 10.00%	0 M0 / T0
20	<a href="#">mail.tsinghua.edu.cn</a>	10 	5 50.00%	3 30.00%	0 M0 / T0
21	<a href="#">tsinghua.edu.cn</a>	10 	0 0.00%	0 0.00%	0 M0 / T0
22	<a href="#">queensu.ca</a>	8 	8 100.00%	8 100.00%	0 M0 / T0
23	<a href="#">cea.fr</a>	8 	0 0.00%	0 0.00%	0 M0 / T0

# Appendix 2

## Survey form

A "printable" version of the survey is included. The original form was completed online

# First Impression test

I would like to kindly ask you to participate in this study as you are conducting research in underground laboratories (UL).

Our team works as part of the EU-funded BSUIN / EUL ([www.bsuin.eu](http://www.bsuin.eu)) project aimed at better use of the potential of underground laboratories in the Baltic Sea region.

One of the problems is the first contact of the potential user with an underground laboratory, often located in a functioning mine or other underground structure erected for a completely different purpose than scientific research. So, we kindly ask you to share with us your first impression of contact with the underground laboratory. Please, fill in a short questionnaire. (< 8 minutes)

This project is funded by the EU through the INTERREG Baltic Sea program

\*Wymagane



Your first contact with underground laboratories (UL)

Please describe your first impressions in contact with the underground laboratory (13 questions, <5 minutes)

1. In which country do you work?

---

2. In which country your underground laboratory is located? (provide the most important)

---

3. How long have you been cooperating with this underground laboratory

*Zaznacz tylko jedną odpowiedź.*

- one year
- 2-4 years
- longer

4. Are you affiliated with this underground laboratory \*

*Zaznacz tylko jedną odpowiedź.*

- yes
- no

5. What is the nature of your cooperation with the underground laboratory

*Zaznacz tylko jedną odpowiedź.*

- science / research
- business / industrial
- Inne: \_\_\_\_\_

6. How did you choose underground laboratory for your research?

*Zaznacz tylko jedną odpowiedź.*

- the collaboration was already underway when I started my research
- by contact with people who have already conducted research there
- on the initiative of underground laboratory
- I was looking for an underground laboratory with some special properties
- Inne: \_\_\_\_\_

7. Was it easy to get the information needed to plan your underground laboratory research? Rate from 1 (very easy) to 5 (very difficult)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very difficult

8. Was contact with underground laboratory established easily? Rate from 1 (very easy) to 5 (very difficult)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very easy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very difficult

9. What is your greatest apprehension before contacting any underground laboratory?

\_\_\_\_\_

10. Which kind of restrictions in underground laboratory surprised you the most?

\_\_\_\_\_

11. What are the main challenge in using underground laboratory during a research project?

\_\_\_\_\_

12. Has underground laboratory appointed a person whom you can turn?

*Zaznacz tylko jedną odpowiedź.*

Yes

No

13. How do you rate your cooperation with underground laboratory? From 1 (very good) to 5 (very bad)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very bad

The EUL website

[\(https://undergroundlabs.network/underground-laboratories/\)](https://undergroundlabs.network/underground-laboratories/)

As a researcher at underground laboratory, you can be considered as an expert in the field. So we ask you for a simple experiment: imagine that you need a new underground laboratory (UL) for your research, then visit our project website (<https://undergroundlabs.network/underground-laboratories/>) and evaluate if it is useful for someone looking for a new UL. To do this, please complete the following survey (8 questions, 2-3 minutes):

14. What was your first impression on the EUL website? Rate from 1 (very good) to 5 (very bad)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very bad

15. How would you rate the usability of the EUL website? Rate from 1 (very good) to 5 (very bad)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very bad

16. Why?

---

17. How would you rate the content of the EUL website? Rate from 1 (very good) to 5 (very bad)

*Zaznacz tylko jedną odpowiedź.*

	1	2	3	4	5	
very good	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very bad

18. What section or content of the EUL website do you find more interesting and useful for your future research work? Why?

---

---

---

---

---

19. What information is missing?

---

20. How can EUL website be improved?

---

Thank you for participating!

---

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# Appendix 3

Summary of responses from people associated with the EUL project

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# First Impression test EUL team

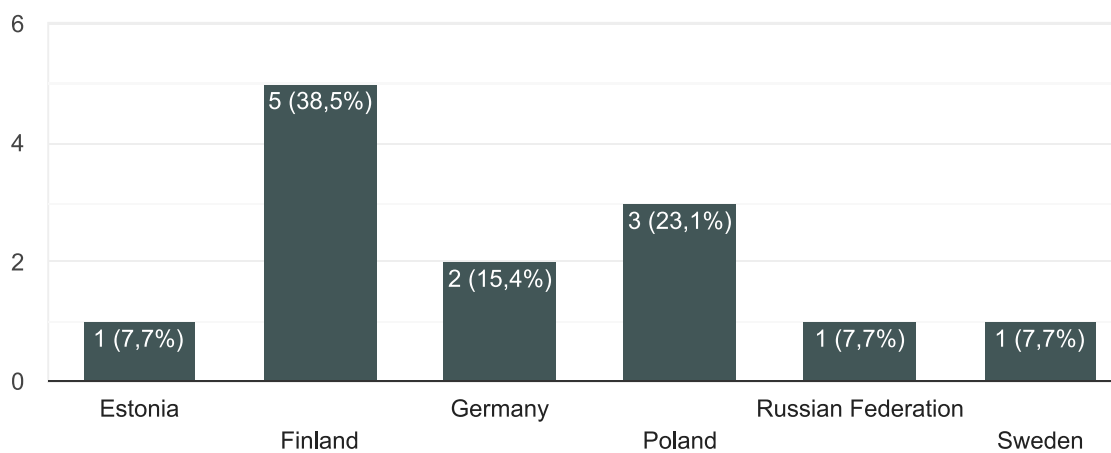
13 odpowiedzi

[Publikuj statystyki](#)

Your first contact with underground laboratories (UL)

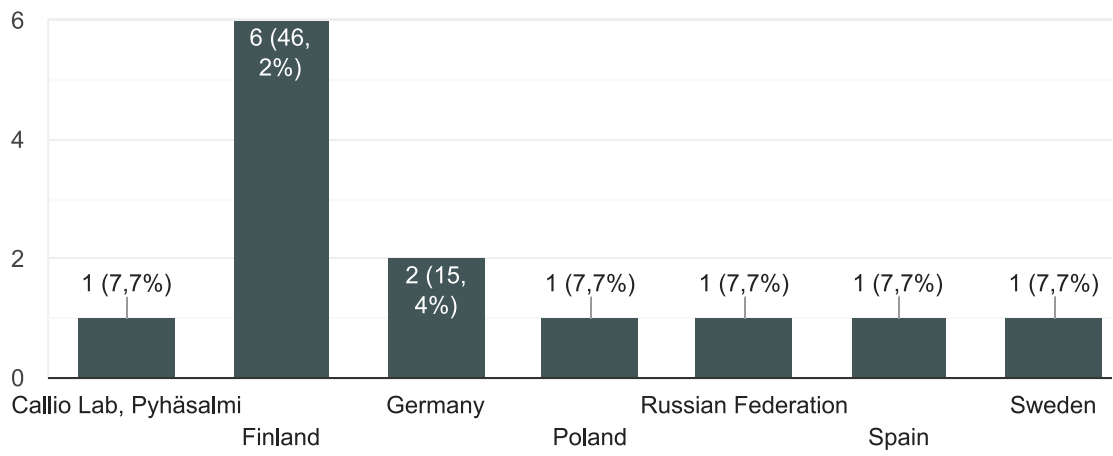
In which country do you work?

13 odpowiedzi



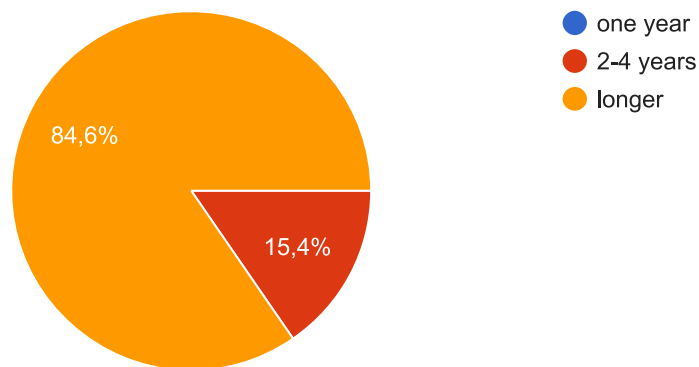
In which country your underground laboratory is located? (provide the most important)

13 odpowiedzi



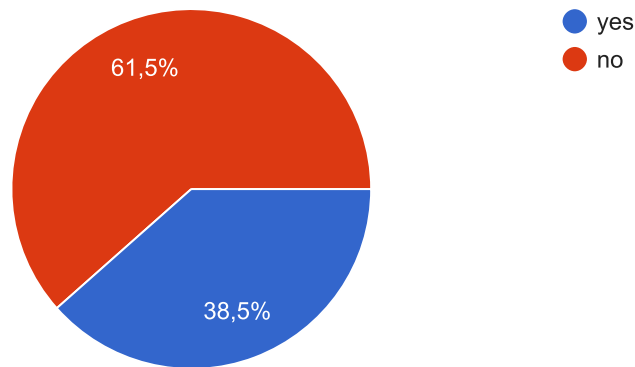
How long have you been cooperating with this underground laboratory

13 odpowiedzi



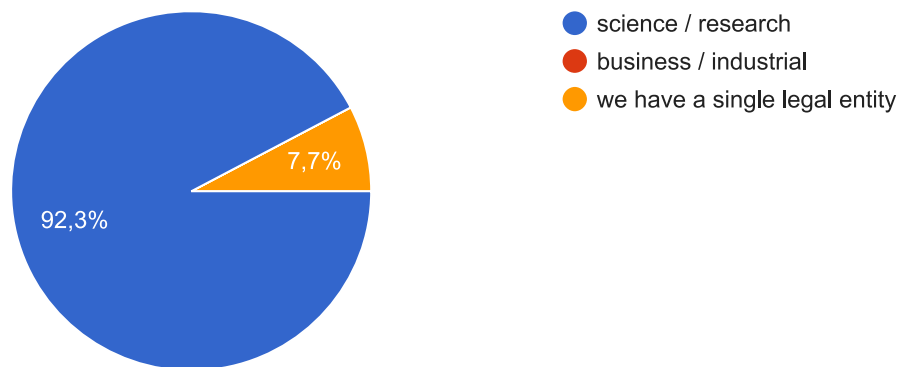
## Are you affiliated with this underground laboratory

13 odpowiedzi



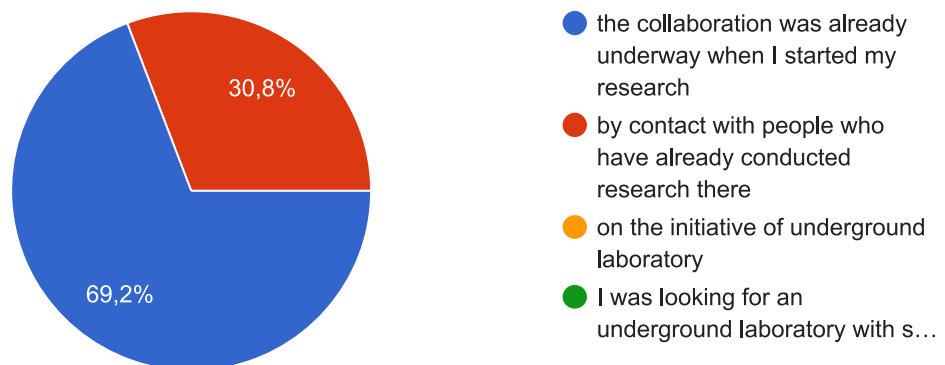
## What is the nature of your cooperation with the underground laboratory

13 odpowiedzi



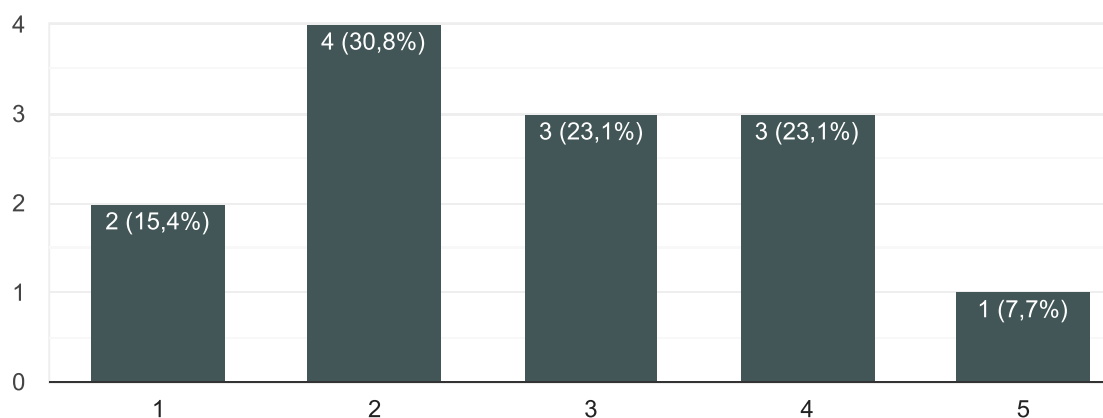
## How did you choose underground laboratory for your research?

13 odpowiedzi



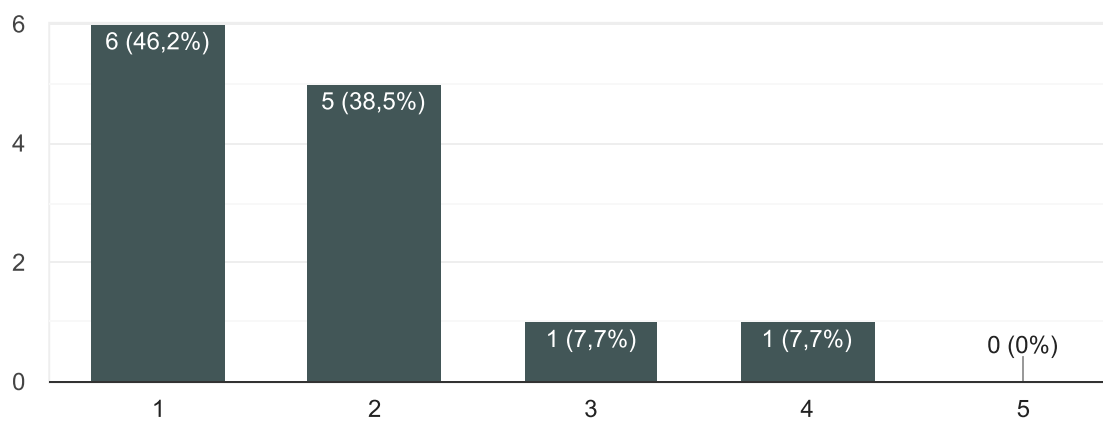
Was it easy to get the information needed to plan your underground laboratory research? Rate from 1 (very easy) to 5 (very difficult)

13 odpowiedzi



Was contact with underground laboratory established easily? Rate from 1 (very easy) to 5 (very difficult)

13 odpowiedzi



What is your greatest apprehension before contacting any underground laboratory?

12 odpowiedzi

test

To conduct work underground seemed strange

Nothing.

Yes

To be misunderstood

I have no concerns.

health and safety

technical difficulties in carrying out the research.

Access to site, as it is located in the Pyrennee Mountains



Which kind of restrictions in underground laboratory surprised you the most?

10 odpowiedzi

test1

Rigorous safety measures

Nothing. Restrictions and rules for working underground should be taken seriously.

Local municipal policy

In our laboratory - restriction to leave ventilation on around the clock

none

Access restrictions to certain laboratories even from the site's own engineer (there was an alarm ringin in one lab, and no one could do anything)

There haven't been any restrictions until now.

Those related to Data and IP management



What are the main challenge in using underground laboratory during a research project?

11 odpowiedzi

test2

To make a good plan for the work to be conducted

Access to the mine (car, elevator, ...)

Unclear responsibility interfaces on-site

In our lab – to deliver some samples, equipment and liquid nitrogen through Metro security system

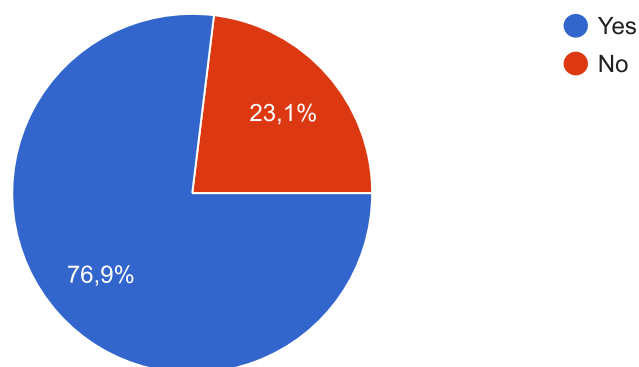
health and safety, attention

safety and security.

The best laboratories are more or less occupied for years to come. Possibilities to bring in something fast and easy does not really exist.

Has underground laboratory appointed a person whom you can turn?

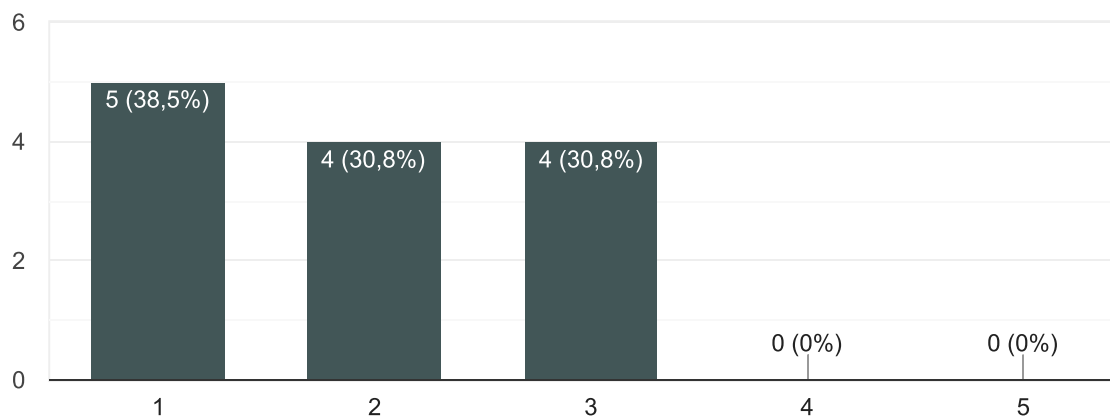
13 odpowiedzi





How do you rate your cooperation with underground laboratory? From 1 (very good) to 5 (very bad)

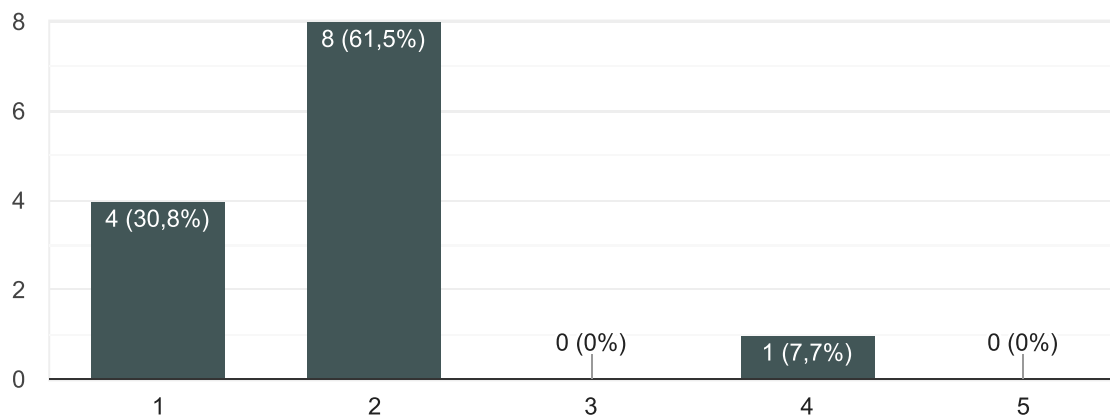
13 odpowiedzi



The EUL website (<https://undergroundlabs.network/underground-laboratories/>)

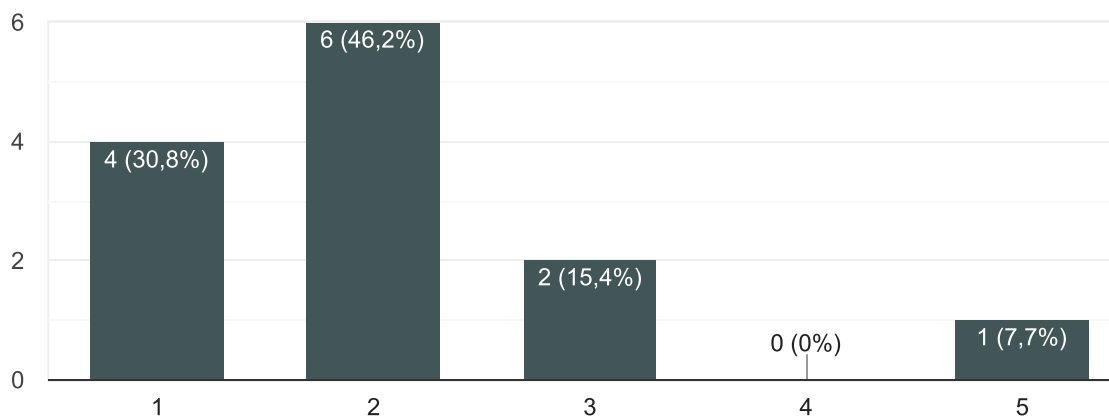
What was your first impression on the EUL website? Rate from 1 (very good) to 5 (very bad)

13 odpowiedzi



How would you rate the usability of the EUL website? Rate from 1 (very good) to 5 (very bad)

13 odpowiedzi



Why?

8 odpowiedzi

test

Enough information in a nice format

The website is very clear and logical.

There is enough info, and it is clear where to find it.

very good structure, a lot of information, there is room for improvement

From the front page it challenging to find to the application site. The application site could contain preliminary questions to the applier so that the recipient could have better idea of the request.

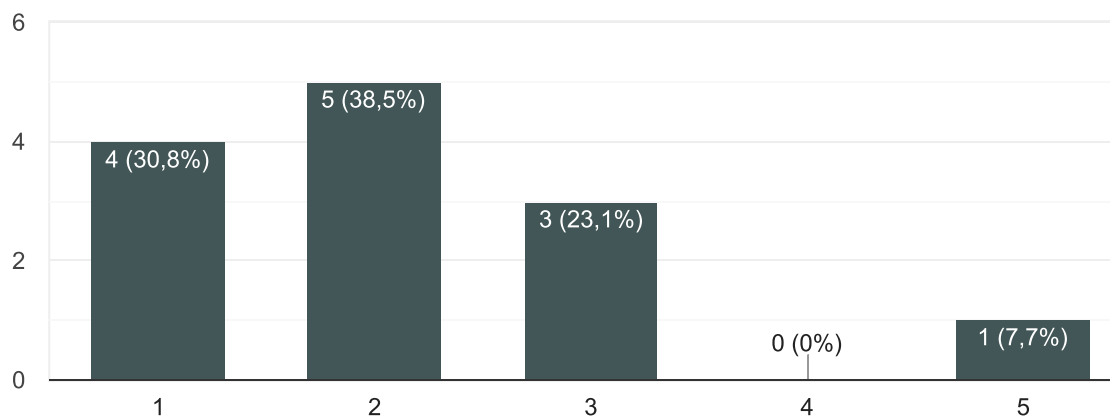
It seems some sections of the website are not working properly

easy to navigate, good graphics



How would you rate the content of the EUL website? Rate from 1 (very good) to 5 (very bad)

13 odpowiedzi



What section or content of the EUL website do you find more interesting and useful for your future research work? Why?

9 odpowiedzi

test

The research possibilities in different ULs

The description of the ULs. Because it is unique info.

the IMPLEMENTING AN UNDERGROUND PROJECT session. very good guidelines for future projects and interaction.

Description of underground laboratories.

Perhaps a more clear structure towards contacting

To highlight and bring out the exciting projects and experiments on the website that have been carried out in one underground laboratory.

Perhaps, the page where I can find the list of ULs network.



## What information is missing?

8 odpowiedzi

test

That you need a budget for accessing/using the UI's

What services can be provided by the laboratory

None

More detailed description of laboratories.

more info from the labs could be added

Clear services that are offered to the customer.

A section of all research projects carried out by the ULs. A section where I can contact with researchers/customers that already performed their research projects within the EUL network



How can EUL website be improved?

9 odpowiedzi

test

See above

I'm impressed of the quality of the website so it's hard to propose improvements

Automatically send offers of cooperation to potential customers))

pop up windows when clicking at the "Read more" buttons; return to top button when scrolling down; social media buttons on the top of home page

Even more detailed description of labs, rock composition, cosmic ray flux etc.

straightforwardness

Show support functions for the users.

By adding the two sections mentioned in the previous question

Thank you for participating!

Ta treść nie została utworzona ani zatwierdzona przez Google. [Zgłoś nadużycie](#) - [Warunki korzystania z usługi](#) - [Ochrona danych osobowych](#)

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# Appendix 4

Summary of responses from the mailing campaign

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# First Impression test

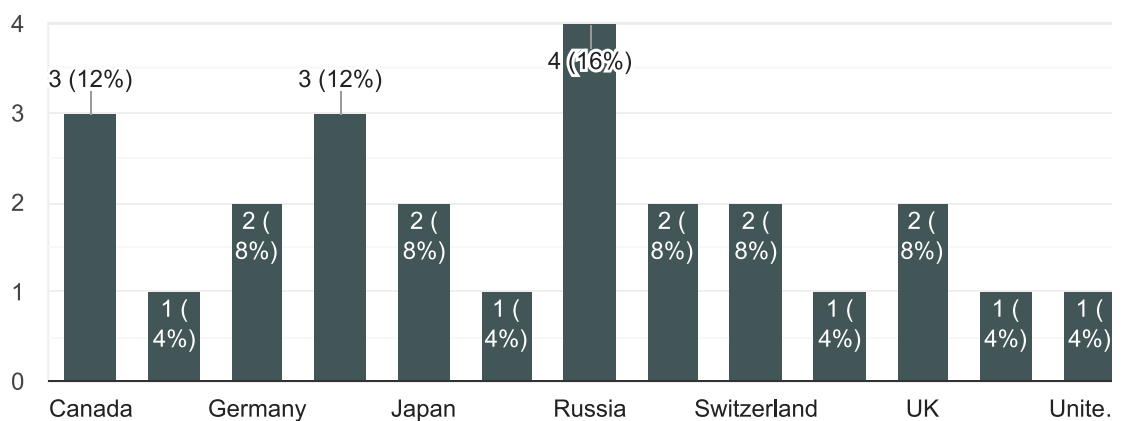
25 odpowiedzi

[Publikuj statystyki](#)

Your first contact with underground laboratories (UL)

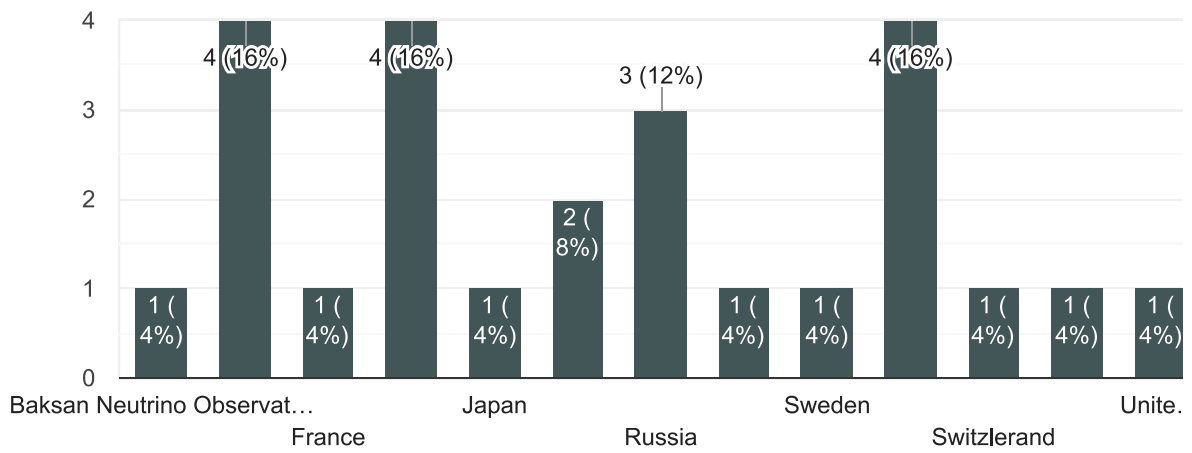
In which country do you work?

25 odpowiedzi



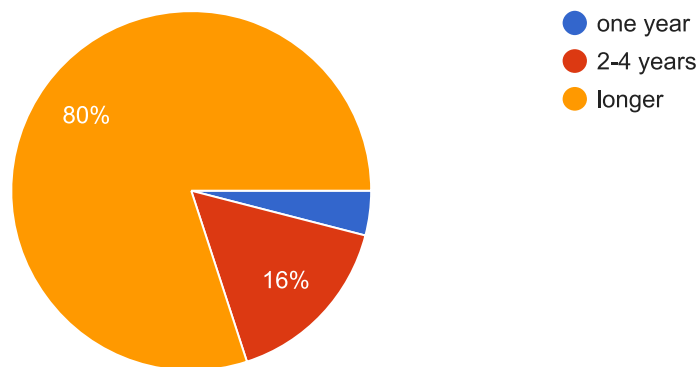
In which country your underground laboratory is located? (provide the most important)

25 odpowiedzi



How long have you been cooperating with this underground laboratory

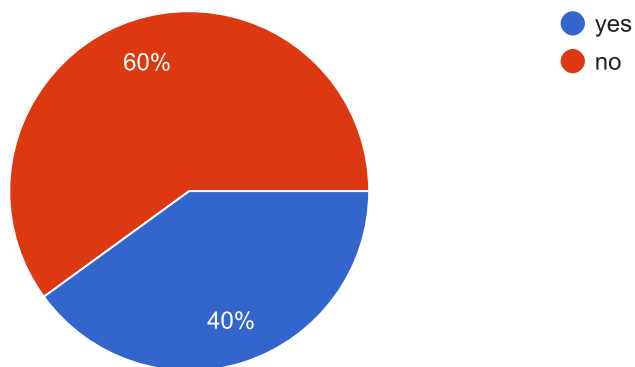
25 odpowiedzi





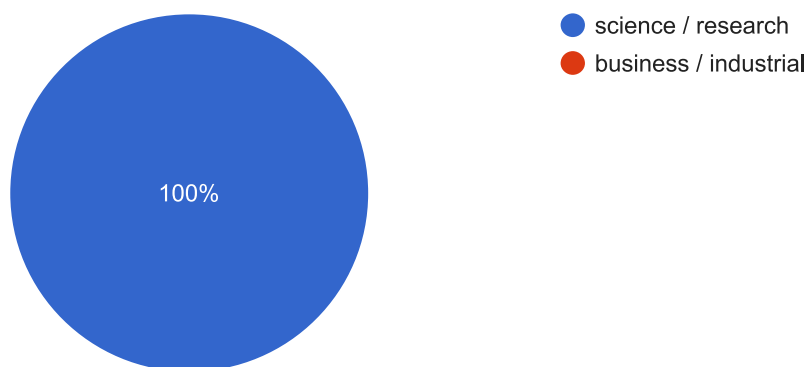
### Are you affiliated with this underground laboratory

25 odpowiedzi



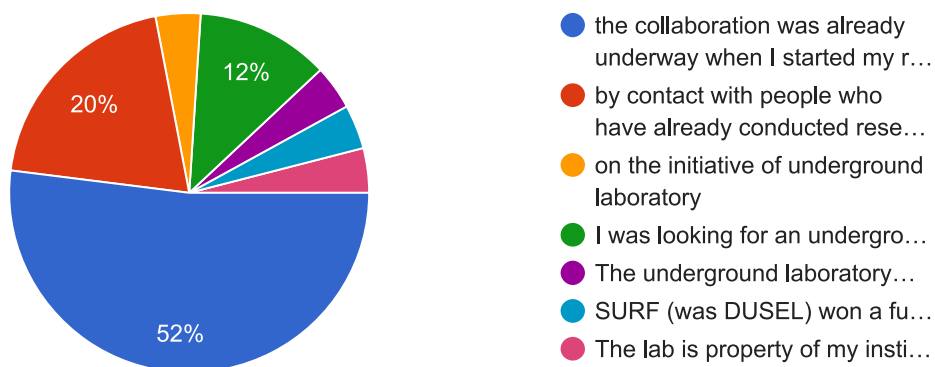
### What is the nature of your cooperation with the underground laboratory

25 odpowiedzi



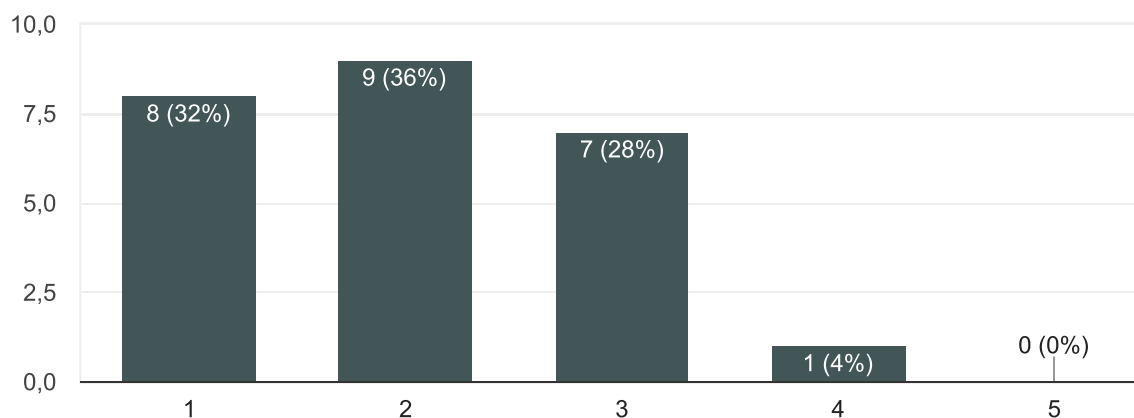
### How did you choose underground laboratory for your research?

25 odpowiedzi



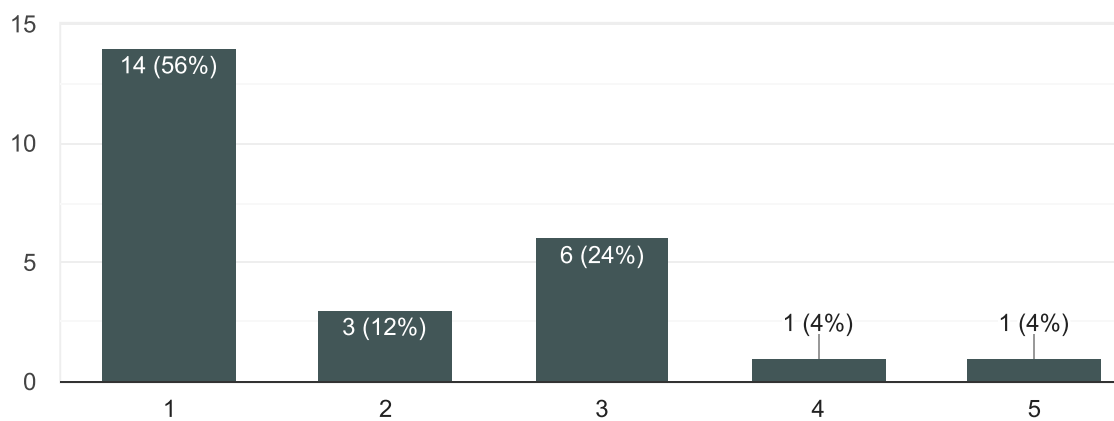
Was it easy to get the information needed to plan your underground laboratory research? Rate from 1 (very easy) to 5 (very difficult)

25 odpowiedzi



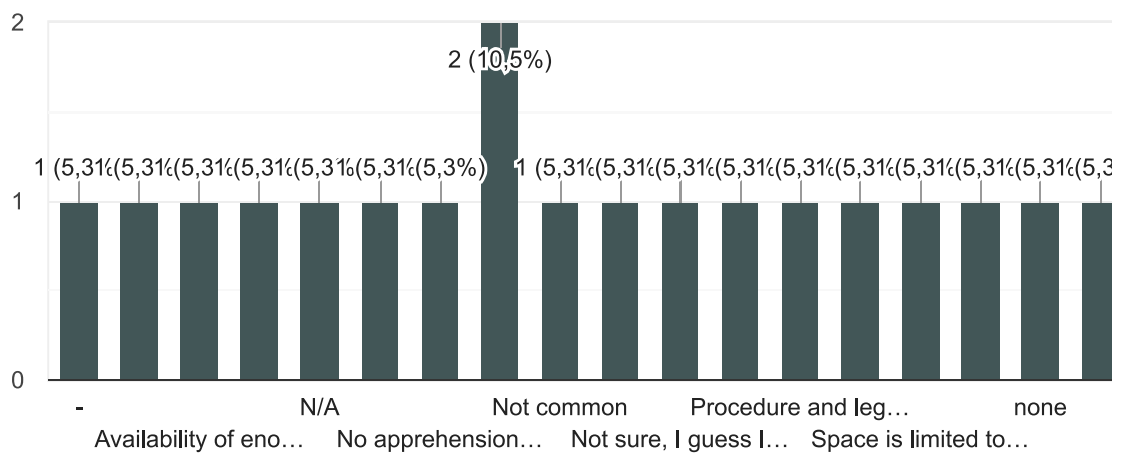
Was contact with underground laboratory established easily? Rate from 1 (very easy) to 5 (very difficult)

25 odpowiedzi



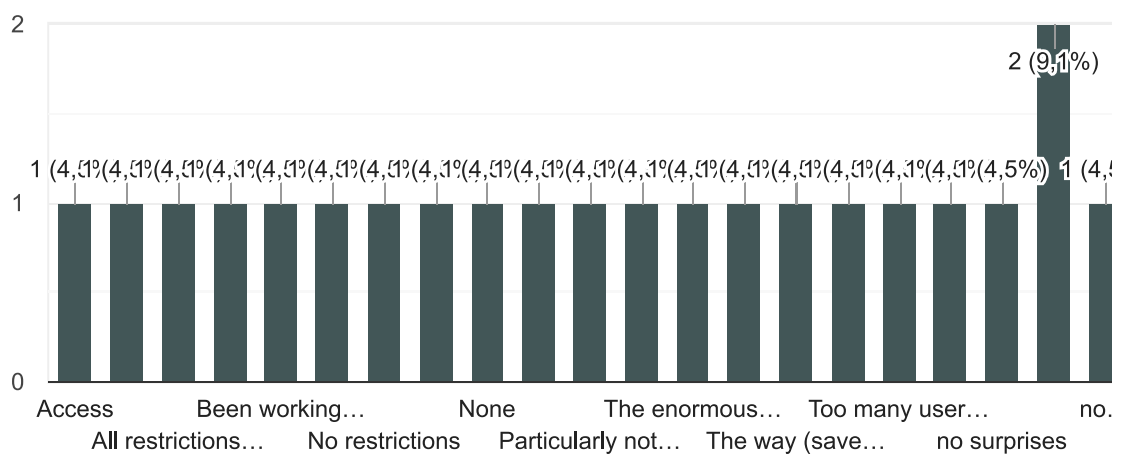
## What is your greatest apprehension before contacting any underground laboratory?

19 odpowiedzi



## Which kind of restrictions in underground laboratory surprised you the most?

22 odpowiedzi



What are the main challenge in using underground laboratory during a research project?

22 odpowiedzi

Transport our bentonite sample to Sweden after Fukushima accident.

no challenges

It's hard to get rid of odors. Because of this, difficulties with welding, with painting, with working with acids

Strict schedule in time of arriving and leaving.

Optimization of available time

Coordination with other users/the lab and that a plan B is often not available.

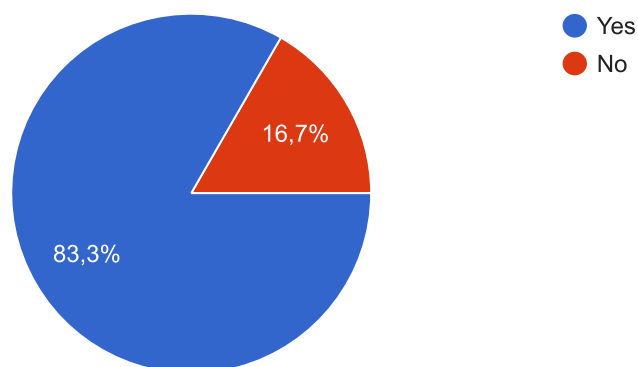
Access

Keeping safe activity

reducina residual background (natural radioactivitv...) and safetv measures

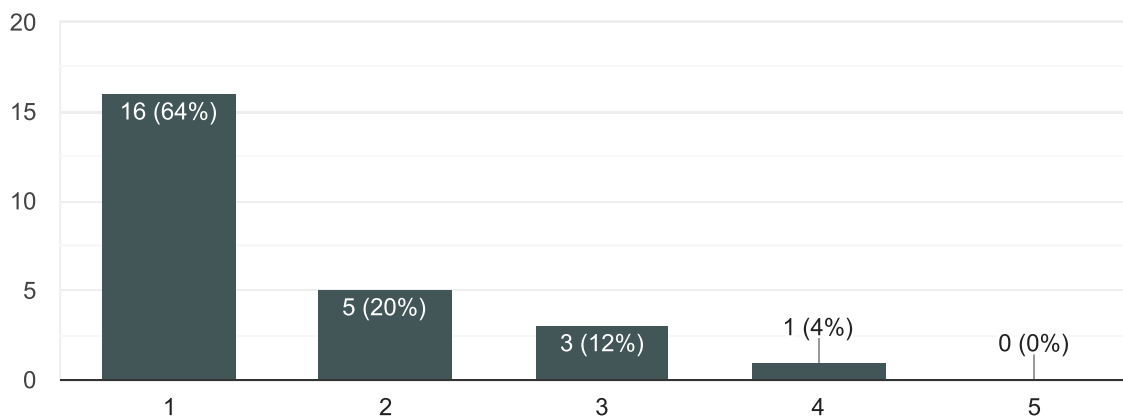
Has underground laboratory appointed a person whom you can turn?

24 odpowiedzi



How do you rate your cooperation with underground laboratory? From 1 (very good) to 5 (very bad)

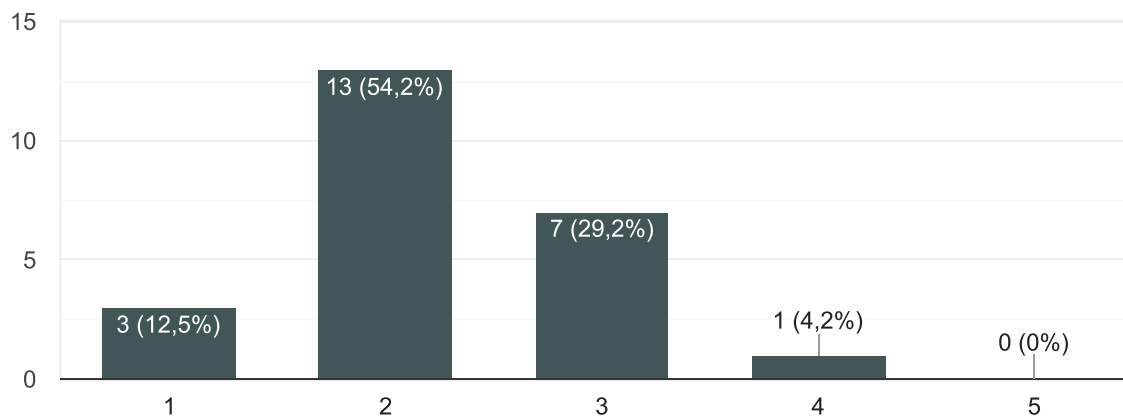
25 odpowiedzi



The EUL website (<https://undergroundlabs.network/underground-laboratories/>)

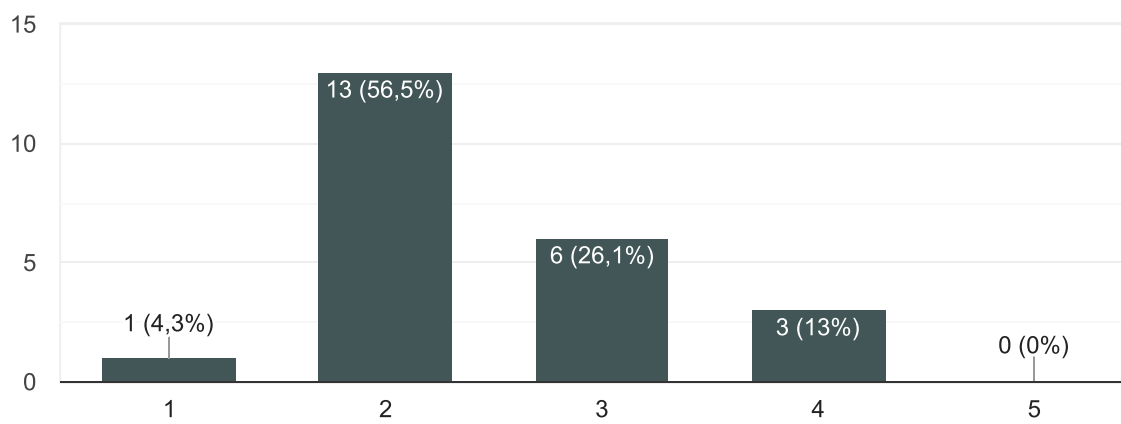
What was your first impression on the EUL website? Rate from 1 (very good) to 5 (very bad)

24 odpowiedzi



How would you rate the usability of the EUL website? Rate from 1 (very good) to 5 (very bad)

23 odpowiedzi



## Why?

14 odpowiedzi

Necessary information and correspondence are presented in the website.

Not all labs are listed that are important

The site is working, but there are no specific characteristics of underground rooms

It might be useful to present there more detailed information on conducting researches.

Interaction options are clearly presented

My first interests regarding UG labs is their depth (in m.w.e.),  $\mu$  flux, and the available volume

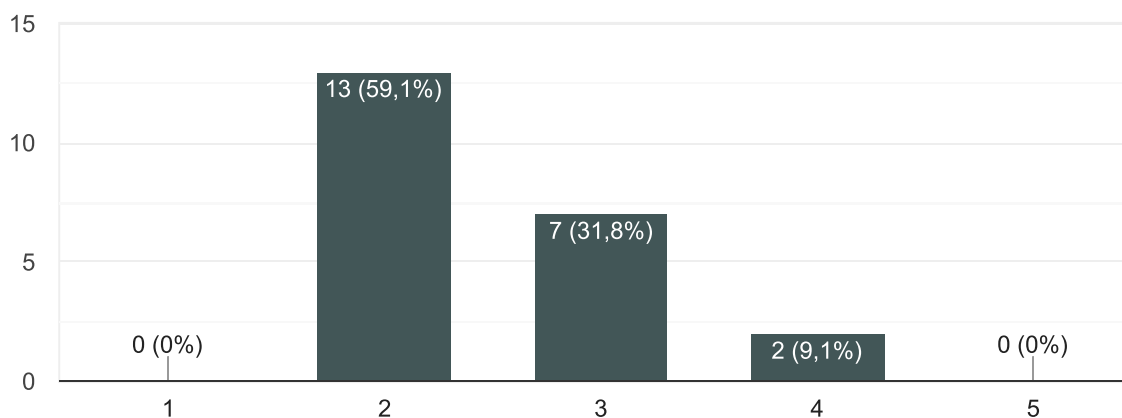
Easy to navigate, intuitive

was not aware of it; first time I learn it exists

Simple clear

How would you rate the content of the EUL website? Rate from 1 (very good) to 5 (very bad)

22 odpowiedzi



What section or content of the EUL website do you find more interesting and useful for your future research work? Why?

14 odpowiedzi

Site characterization content since I'm not familiar with European's geology.

the depth at which the rooms are located

The section Callio lab in Finland. It is one of the deepest laboratories in Europe. There are large halls appropriate for geophysical researches using neutrino.

Site characteristics

no time to really read it with attention

The information on each lab

Interest is only in what other labs are doing

Nothing really.

Knowing these labs exist and what their focus is.





## What information is missing?

14 odpowiedzi

Additional information of characteristics of groundwater chemistry and hydrogeology.

room sizes, access to them, distance to nuclear power plants, estimates of neutron fluxes

From my point of view there missed information about other large European laboratories like Gran Sasso or Modana etc. Probably because they mostly used as basic researches centres.

More technical information on backgrounds at the facilities

A table etc with unified information (depth, space, personnel, access, facilities etc) for every lab

no time to look

Maybe include something about the research already being conducted in the URL and the current research organisations each lab is collaborating with



How can EUL website be improved?

10 odpowiedzi

Add some links existing already, if there is.

more specific information

I have no ideas about the improvement of the EUL site.

References to publications related to work already developed there

Maybe a information pack for each site

No answer

See above

no suggestions yet

more details for scientists

Thank you for participating!

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