

Empowering Underground Laboratories network usage

Digital dissemination and social media report

The project development is part-financed by the European Union (European Regional Development Fund) under the Interreg Baltic Sea Region Programme.





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1. Digital dissemination objectives

Digital dissemination plan goes in hand with approved communication plan of the EUL project. Main possible communication objectives include:

- Create awareness of EUL Network within target markets;
- Build a trusty network of research community;
- Build an image based on expertise of the network.

2. Digital dissemination tools

Aside from publicity tools such as press releases, print flyers, newsletters and other, digital content is displayed in designated social media pages.

2.1. Facebook (https://www.facebook.com/UndergroundLabs.network);

2.2. LinkedIn (https://www.linkedin.com/company/68835499);

2.3. Twitter (<u>https://twitter.com/EUL_Association</u>).

Digital content examples, such as video, image and text is presented in the next section.

3. Target audiences and content examples

Communication routes were implemented in order to reach and engage with presented target groups. Main message and objective to each target market is displayed in the figure below.

Target audiences					
Research and Education Community	Organisations	Investors			
Geoscience, physics, safety, construction, mining, material science	Existing, new, umbrella organisations (funding and financing)	Entrepreneurs, Business developers			
Content (main messages)					
Research and specialized information	IProject activities and results	Potential activities and services			
Research, study results, scientific data and information	5 51	Labs introductions, information on services and EUL expertise			

The communications efforts focus on the following geographic areas:

- Finland, Sweden, Denmark of the Nordic countries
- Baltic states: Estonia, Latvia, Lithuania
- Southern part of the Baltic Sea: Poland, Germany
- Russia beyond the Baltic Sea: Republic region

St. Petersburg region, Karelian

Content examples:

1.1 Research and education community







"From a geochemical point of view, there are a large number of different **experiments** that could benefit from the controlled **underground** conditions to study various aspects of reduced groundwater of various salinity and ages in contact with fracture surfaces of various kinds."

Mats Åström



1.2 Organisations





1.3 Investors

Why #underground #business sites? 🤗

For businesses to turn facilities into R&D and operations sites, specific criteria has to be met: stable temperature, suitable humidity, safe environment, etc.
#EUL offers ideal environment for such matters:... See More
Why underground business sites?

4. A/B testing

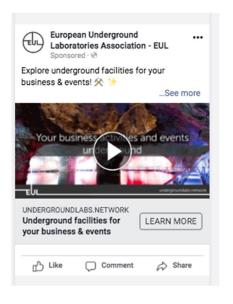
In order to analyse target audiences and behavioural social media data, various A/B tests are developed. Completed EUL A/B tests are presented here:

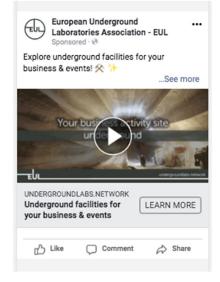


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Inderground spaces are well-suited for many tresearch and technical development purposes.	Underground spaces are well-suited for many #research and technical development purposes
Activities underground can offer answers to questions concerning geo-energy, #geostorage, #environmental processes and #resources. Addressing these questions by developing new echnologies encourages #innovation. #EUL network welcomes projects in several fields of activity - take a look at undergroundlabs.network!	Activities underground can offer answers to questions concerning geo-energy, #geostorage, #environmental processes and #resources. Addressing these questions by developing new technologies encourages #innovation. #EUL network welcomes projects in several fields of activity - take a look at
#undergroundlabs #undergroundresearch	undergroundlabs.network! 두
Looking for an underground facility for your research? Leave it to us.	#undergroundlabs #undergroundresearch "From a geochemical point of view, there are a large number of different experiments that could boneth from the controlled underground conditions to study various specific of reduced groundwater of various salinity and ages in contact with fracture surfaces of various kinds: Mats Astrom Professor al Linnaese University, Sweten
Learn more at undergroundlabs.network	UNDERGROUNDLABS.NETWORK EUL Underground Research EUL, or European Underground L
UNDERGROUNDLABS.NETWORK EUL Underground Research EUL or European Underground	

A/B test focused on Research and Education Community Target market

Set in order to determine whether 'call-to-action' or 'expert commentary' content would cause higher engagement. Winner is undetermined because of similar engagement rates.



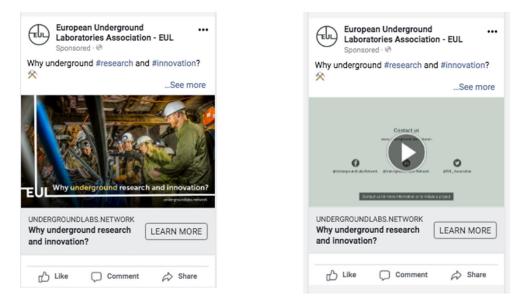






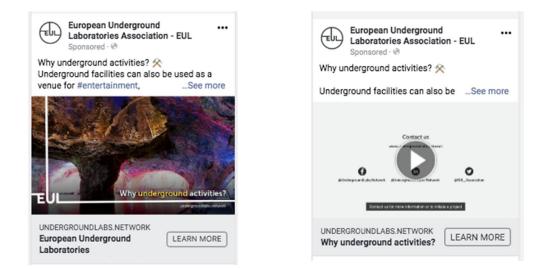
A/B test focused on Services Relevancy

Set in order to determine whether Business related activities are more relevant than other various event services. Facebook audience is more likely to use underground labs for business related activities (conferences, etc), rather than hold an event (concert, etc.).



A/B test inside the target audience: Researchers

Set in order to determine whether researchers are more keen to engage in explanatory video content or a simplier text explanation with a visual. Facebook researchers audience is more likely to engage in in a video content, rather than a text presentation.





A/B test inside the target audience: Organisations

Set in order to determine whether organisations are more keen to engage in explanatory video content or a simplier text explanation with a visual. Facebook organisations audience is more likely to engage in a video content, rather than a text presentation.

5. Intermediate data ant results

1st half of the project presents such digital dissemination data, which can be evaluated through these social media channel statistics: followers, engagement, reach. Data is presented below.

5.1. Followers

	Facebook	Linkedin	Twitter
Audience / followers	193 (+68)	54	7

5.2. Engagement & Reach

Engagement metric on Facebook can be tracked via such follower actions as comment, like and share. Reach metric is measured when post appears on users screen.

5.2.1. Facebook

Facebook provides an engagement rate data, which is calculated as the number of Engaged Users is divided by the total reach of that post. Top 3 posts with highest engagement rates on EUL Facebook are listed:



31%



European Underground Laboratories Association - EUL March 19 · ©

Veiko Karu from TalTech - Tallinn University of Technology was nominated as the Vice Chairman; Various agreements and plans regarding partnerships, budget,

March 18th, 2021 #EUL held its 1st Steering Committee. 5

18%

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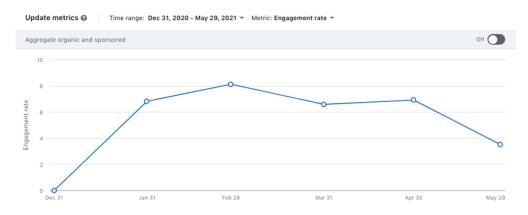
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As for reach metric, the highest number is achieved by paid promotion. Here is the total reach of the 1st part of EUL project:



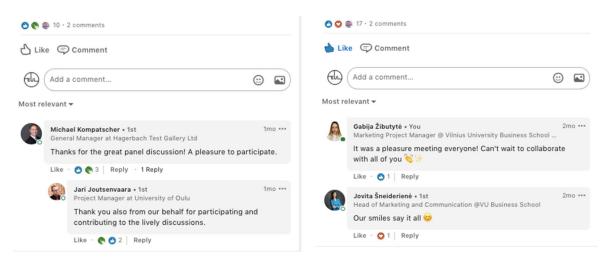
5.2.2. LinkedIn

Metrics on LinkedIn are calculated differently. LinkedIn calculates engagement rate by adding the number of interactions, clicks, and new followers acquired, divided by the number of impressions the post receives. Here is the overall engagement rate of the first project period:



It is vital to notice that LinkedIn offers a greater comment metric engagement due to its nature. Since this platform is designed to target and tag users, it is easer to build a network.





5.2.3. Twitter

For digital dissemination, Twitter has been used the least so far. The engagement and reach are highest when network members are active and involved:

You Retweeted Ossi Kotavaara @ossikotavaara · Apr 30 Today @EuroGeosciences we discuss the structure and geography of #UndergroundResearch and customer networks of all underground laboratories in the world. #vEGU21 meetingorganizer.copernicus.org/EGU21/session/ @EUL_Association @InterregBSR @JJoutsenvaara Julia Puputti @ERNlinikoski @UniOulu @UniOuluKSI	R: E of M: T M: T Visu on R: C	Joutsenvaara @JJoutsenvaara very business is built on trust. This is people's business 'he geotechnical business needs alisation, stories etc. ontact with the people via applic /hy the work is done, what is the	s to be cations	filled with e	
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6. Final result overview

By the end of the project, such results were acquired:

6.1. Social media followers

The following table represents the overall growth from the beginning of the project to 1st half and then the end of project.

	Facebook	Linkedin	Twitter
1st half results	193 (+68)	54	7
2nd half results	229 (+36)	90 (+36)	11 (+4)
Total	+104	+144	+11

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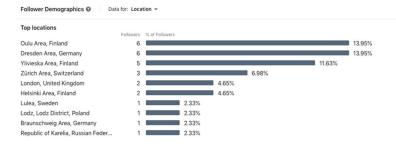


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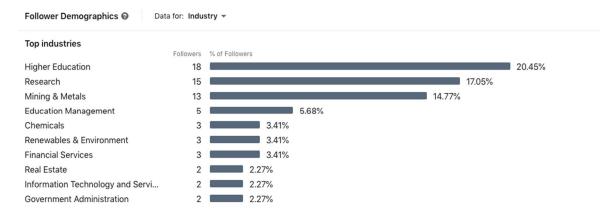
6.2 Follower demographics

LinkedIn data shows such demographic follower categories:

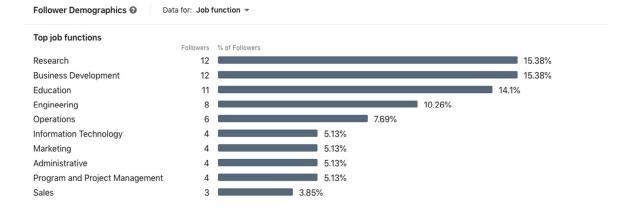
Top locations



Top Industries



Top professions



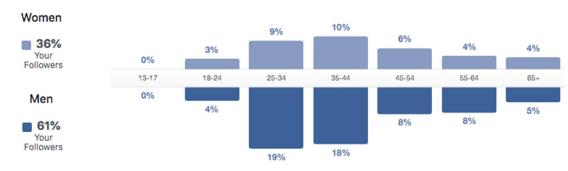
To summarise, LinkedIn follower audience is mainly focused in research, business and education which is in line with the primarily set audience goals. Location data can be used in he future by targeting each follower group with more direct messages (via language, events, people).

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Baltic Sea Region



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Follower gender

Follower location

Country	Your Followers	City	Your Followers	Language	Your Followers
Poland	48	Vilnius, Lithuania	28	Polish	43
Lithuania	41	Wroclaw, Poland	12	English (US)	36
Finland	19	Oulu, Finland	4	Lithuanian	31
Greece	9	Nivala, Finland	4	Finnish	18
Italy	9	Kraków, Poland	4	English (UK)	17
Austria	9	Warsaw, Poland	3	Italian	11
Sweden	7	Klaipeda, Lithuania	3	German	10
Estonia	7	Łódź, Poland	З	Greek	8
Germany	6	Leoben, Austria	3	Russian	7
Netherlands	6	Jos, Nigeria	2	Spanish	7

Such data can also be used in more user-targeted advertising by country. Facebook also provides useful follower information breakdown, regarding the growth.



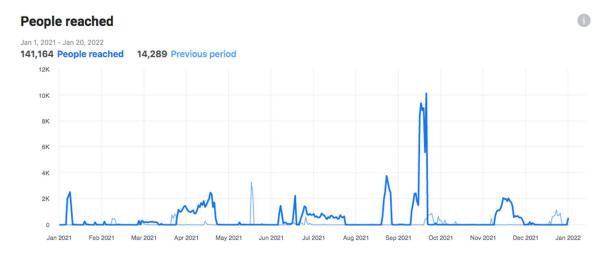
Page following during the year:



According to such results, while page's followers number has been increasing steadily over the year.

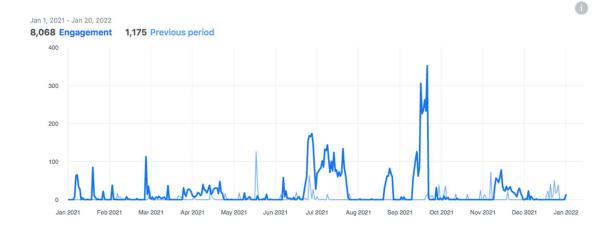
6.3 Reach & Engagement

Facebook presents such data on page's reach:



Comparing to previous period, during the year page reached 126875 more people. It is mainly coming from advertising and targeting specific audience members who are interested in services and etc.





Regarding the engagement, it is almost 7 times bigger than the previous page period.

In order to make future suggestions, it's important to analyse, what kind of content has been the most engaging and therefore, reached more audience.

6.4. Content

Since Facebook provides in depth data of the content, the content will be analysed based on this social media channel.

Type of content:

The success of different post types based on average reach and engagement.

Show All Posts 🔻	Reac	h 📕 Post Clicks 📕 Reactions, Comments & Shares 👔
Туре	Average Reach	Average Engagement
🔗 Link	5,846	86 7
Photo	103	5 9

As it is presented above, posts, featuring links have significantly higher engagement and reach overall. Link involvement into content can be displayed via ads. Here are some examples of a link based posts:





European Underground Laboratories Association - EUL September 2, 2021 · ©

European Underground Laboratories Learn m
The EM 'Barbara' in Mikolów used to operate as an...

Reach: 13.2 K Clicks: 383 Reactions: 34 European Underground Laboratories Association - EUL

Why underground activities? 🛠 Underground facilities can also be used as a venue for #entertainment,

Hadrogical and Hevents. For many kinds of training this setting is ideal. Here are some examples of activities, events or business that can be located in an underground facility: © Business meetings, seminars, workshops, conferences... See more

Business meetings, seminars, workshops, conferences... See more



European Underground Laboratories EUL, or European Underground Laboratories...

Reach: 11.2 K Clicks: 162 Reactions: 8 European Underground Laboratories Association - EUL *** September 24, 2021 - © Welcome to The KGHM Cuprum Research and Development Centrel A

This Centre is responsible for managing and implementing measures to mininize risk and maximize the efficiency of mining production. In terms of specialized knowledge it's one of the best research and development the centre has very for series of every of experience, skilled scientists and good international cooperation in huge mining projects. The knowledge and marked the series of the



European Underground Laboratories

Reach: 9.7 K Clicks: 566 Reactions: 18

Learn more

Looking more in depth, here's a type of content, sorted by reach and engagement:

- 1. Presentation of a laboratory
- 2. Services presentation
- 3. People (faces, quotes, member presentation)
- 4. Events (conferences, feedback)
- 5. Other (Christmas / Easer cards).

A/B Testing

A/B testing findings suggest such actions in the future:

- Both call to action and expert commentary content apply to research audience
- Business related services presentation is a higher interest than event activity promotion (venue rent for events)
- Video content is more engaging than a picture and text based content.



7. Summary and suggestions

Coming back to set possible communication objectives, such progress has been done:

- Regarding EUL awareness, a broad audience in social media has been gathered;
- Regarding the research community, one of the biggest follower group consists of researchers;
- Regarding the image, by including EUL members into social media communication, awareness has been established.

It is noted, that Twitter is much more valuable when communication comes from people, not from a page. In the future, it is suggested to involve and spread various information not from the main page, but through the network members. Regarding Linkedin, it is a perfect tool to engage within the organisation members and possible customers, since it is focused on professional / achievement related content.

Lastly, based on the results, the content, featuring laboratories and its services seems to gain the biggest audience attention. It is suggested to expand presentations of laboratories and its services via video, interview, photo, tour and other possible content to attract more possible customers.

