

EGU2020-11212

<https://doi.org/10.5194/egusphere-egu2020-11212>

EGU General Assembly 2020

© Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.



BSUIN – Baltic Sea Underground Innovation Network

Jari Joutsenvaara¹ and the BSUIN collaboration*

¹University of Oulu, Oulu, Finland (jari.joutsenvaara@oulu.fi)

*A full list of authors appears at the end of the abstract

The Baltic Sea region hosts numerous underground facilities or underground laboratories (ULs). The Baltic Sea Underground Innovation Network (BSUIN) there are six such facilities, all unique in their characteristics and operational settings, e.g. located in existing or historical mines, research tunnel networks or as a dedicated underground laboratory for a specific purpose. BSUIN project concentrates on the making the ULs more accessible for current and new users, helping the ULs to understand their infrastructural challenges and possibilities, and through joint marketing to attract a broader spectrum of users into their facilities.

The underground laboratories participating in BSUIN are Callio Lab (Pyhäjärvi Finland), ÄSPÖ Hard Rock Laboratory (Oskarshamn, Sweden), Ruskela Mining Park (Ruskeala, Russia), Educational and research mine Reiche Zeche (Freiberg, Germany), Underground Low Background Laboratory of the Khlopin Radium Institute (St.Petersburg, Russia) and the Conceptual Lab development co-ordinated by KGHM Cuprum R&D centre (Poland).

We will present the overview of the project, key outcomes, findings and recommendations for underground laboratories in general. The key outcomes of the project for the individual underground laboratories consist of characterisation of the structural, geological and operational environments together with information on the governing legislation and authorities for the underground sites. Underground risks and challenges in the underground working environment have been documented to help the further development of the individual underground laboratories. Service designs were developed together with the ULs to enhance user support and to attract a broader spectrum of users. To help users with innovation and innovation management the variety of the innovation services was documented to be used as bases for the future operational development of the ULs. To support the marketing, coordinate activities and develop the cooperation an umbrella organisation European Underground Laboratories association (EUL) will be established to carry on the work started in BSUIN.

The Baltic Sea Underground Innovation Network, BSUIN, is funded by the Interreg Baltic Sea Region Programme.

BSUIN collaboration: 1) R. Heikkilä, E. Korjonen, O. Kotavaara, T. Makkonen, E-R. Niinikoski, H. Pihlajaniemi, J. Puputti 2) H. Ahola, P. Aro, T. Vuorela, 3) J. Kisiel, K. Karpa, K. Szkilniarz, 4) M. Laaksoharju, M. Ohlsson, 5) W. Pytel, K. Fulawka 6) H.Mischo, T. Mueller, 7) R. Giese, K. Jaksch, 8) V.

Mockus, T. Valys, 9) K. Jedrzejczak, M. Kasztelan, J. Szabelski, 10) V. Gostilo, S. Pohuliai, A. Sokolov
11) V. Shekov, K. Shekov, P. Petrov, 12) A. Stepanov, I. Saveleyva, G. Zakharov, 13) V. Karu, A. Paat