ENGIE Promoting gender balance in the area of earth science and engineering


1University of Miskolc, Faculty of Earth Science and Engineering, Miskolc, Hungary (foldshe@uni-miskolc.hu)
2LTU – Lulea University of Technology, Luleå, Sweden (kristina.johansson@ltu.se)
3ISMAR-CNR – Institute of Marine Sciences, National Research Council of Italy, Bologna, Italy (silvia.giuliani@bo.ismar.cnr.it)
4LPRC – La Palma Research Centre SL, Garafia, Canary Islands (director@lapalmacentre.eu)
5University of Zagreb – Faculty of Mining, Geology and Petroleum Engineering, Zagreb, Croatia (iva.kolenkovic@rgn.unizg.hr)
6EFG – European Federation of Geologists, Brussels, Belgium (anita.stein@eurogeologists.eu)

In recent years, several documents have been published in Europe on the shortage of skilled employees in key scientific professions. Geosciences, especially the raw materials and mining engineering sectors are no exception. One possible factor that contributes to this phenomenon is that the overall gender pattern in geosciences is imbalanced. It is characterised, more or less, by men in almost all parts of the business clusters, in society and professional communities as well as in education, research & innovation and in policy & decision making. The project ENGIE aims to improve the situation by turning the interest of young girls to study geosciences and geo-engineering with the help of a stakeholder collaboration network implementing a set of concrete actions in more than 20 EU countries.

The project is funded by EIT RawMaterials and started in January 2020 and, despite the challenges caused by COVID-19, it has achieved some significant results. First and foremost, the recent status of geo-education and the interest of young girls for geosciences was assessed via a concise survey targeting specifically secondary school students and teachers. This survey also aimed to identify any possible bottlenecks dissuading young girls to embark on a geoscientific profession. In addition to a comprehensive analysis and national workshops in 20 countries, an international online event was organised with the participation of successful women – all being role models within the global geoscientific and engineering community – in order to better understand the motivation that influenced their career choices, as well as obstacles that they were facing pursuing their career choices.

Regarding the actions focused on the target group, we organised an online video contest where girls were asked to film what they think geoscientists do at work. Additionally, some geo-activities linked to Researchers’ Night events were held throughout Europe during autumn 2020. However,
most of the ENGIE actions targeting young girls are planned to be carried out in 2021 and 2022 and should include the following: activities organised at University Open Days and Girls’ Day side events, family science events and school science clubs, fieldtrips, mine visits, mentoring programmes, Researchers’ Nights geoscience events, webinars, photo contest for girls, methodology course for science teachers and last but not least publishing the ENGIE Magazine. The current health crisis will, however, undoubtedly have an effect on the nature and or the schedule of the implementation of these actions as many of them might need to be moved to the online spheres or might be delayed by a few months.

The implementation of these actions at the national level will serve as the basis for the development of a long-term EU-level initiative, bringing together a stakeholder network focused on the continuous motivation of girls to embark on geoscientific careers.

Thus, the prolongation of project activities, supported by a sustainability plan, is envisaged. It is expected that future employers will be willing to invest in maintaining the ENGIE network, a ‘network that works’ and thus help create a strong and more gender-balanced workforce in Europe.