

**Closing/graduation ceremony of the 42<sup>nd</sup> 6-month session of GRÓ GTP,  
Friday November 19<sup>th</sup>, 2021**

Address by Guðni Axelsson, Director

Distinguished guests, colleagues, friends and GTP fellows. The road leading us to this celebration has been an unusually long one for the GTP. It started about 2 years ago when the current group of fellows was selected and invited to come to Iceland for 6-month training in different aspects of geothermal science and development. The group was supposed to come to Iceland in the spring of 2020 and the intricate preparations were already well advanced when the covid-pandemic hit the world. So, we postponed the program, first for a month or two, but we were eventually forced to postpone it for more than a year. But this year we decided to organize the 6-month training at almost any cost, even though the covid-pandemic had far from left us. And I'm very happy to report now that we have managed to conduct the 6-month program quite successfully with nearly the same group that had originally been invited. It wasn't without increased difficulty, such as in arranging visas for the fellows, managing complex travel arrangements and dealing with quarantine issues. But we also learned new things along the way, such as conducting part of the training online, which actually enabled some of the fellows to participate from the beginning, even though they were stuck at home or in quarantine. The fact that this ceremony is broadcast through zoom, demonstrates this new twist.

This year 25 fellows took part in the 6-month training. They come from 14 countries in 4 continents: 2 from S-America, 4 from N-America (actually Central America), 12 from Africa and 7 from Asia. The greatest number from a single country comes from Kenya, or 6 fellows. We added a new country to our roster this time, that is Columbia. Five of our eight study lines were offered this time around, that is geothermal geology, geophysical exploration, chemistry of thermal fluids, drilling engineering and geothermal utilization. The largest group took part in the utilization line with 7 participants. It should be noted that 4 of the fellowships were financed by the power company KenGen in Kenya, while the rest of the fellowships were financed by the Ministry for Foreign Affairs in Iceland.

After the completion of this year's 6-month training, which is today, 743 scientists and engineers from 64 countries have completed the training in 42 years. Gender equality has always been a matter of attention for GTP with the percentage having slowly been improving through the years and I'm happy to report that we almost made full equality this year, with 12 women and 13 men.

But even though we are closing the 42<sup>nd</sup> 6-month training session of the Geothermal Training Programme the activities of GTP are more varied than that, as you all know. At the moment 11 elite former 6-month fellows are pursuing MSc-degrees at Icelandic universities with our support and 6 are working on their PhD-projects. Of these 17, 7 are women and 10 are men. This year 6 students have already completed their MSc-studies and one student, Geoffrey Mibei from Kenya, defended his PhD-thesis with grandeur just about a month ago. With those completing this year, 75 students have now obtained an MSc-degree, with our support, and 4 successfully defended their PhD-theses.

To complete this brief review of our activities in 2021 I can report that our 17<sup>th</sup> short course for Africa is now running in Kenya. We are very happy that this was possible this year, with the important support of KenGen and GDC of Kenya. This activity, which has been offered at least yearly since 2005, had to be postponed in 2020. Unfortunately, the comparable short course series that we

have operated in El Salvador for Latin-America since 2006, has been interrupted more drastically by the pandemic – that is postponed till 2022. The same goes for the Geothermal Diploma Course in El Salvador, which we have supported significantly since 2013.

Another activity that the GTP was heavily involved in this year was the World Geothermal Congress. This major event for the geothermal community was planned for 2020 but was also postponed like all comparable events. It was turned into a kind of hybrid event in 2021, with monthly online sessions starting in April and then an onsite event in Reykjavík in late October. An important tradition linked with previous congresses has been that GTP has supported the participation of selected former fellows in the conference. This was on a smaller scale this time than expected because of the pandemic, but still 86 former GTP fellows participated in the congress, most with our support – 26 of them came to Reykjavík but the rest participated online. But what was equally important was that our 6-month fellows could now participate, as the congress was held in Reykjavík, which I know they did extensively, including in short-courses, lecture-sessions and social activity. The same goes for those of our MSc- and PhD-fellows that are in Iceland. It is my belief that this has added significantly to their experience and education.

I would like to use this opportunity to thank the Government of Iceland for its continued financial support, which has been the backbone of our activities for 43 years and 42 6-month training sessions. I would also like to thank the Ministry for Foreign Affairs for their role in this through the years and now, especially, the newly formed GRÓ, our parent centre, for its support. We have high hopes for the future, with GTP as part of the GRÓ-family. I would also like to sincerely thank all the teachers, that is lecturers and supervisor, that have contributed to the training this year – the number is probably close to 100. Your unselfish and dedicated input is the pillar of our activities and the key to GTP's success. I'd especially like to mention the scientists from ÍSOR, which have contributed the most, without forgetting teachers from engineering firms, universities and energy companies as well as independent actors. Last but not least, I'd like to thank the permanent staff of the GTP, Ingimar, Fríða and Vigdís, as well as Markús who has now left us, for their devotion and extremely hard work at times, which has been essential for our success.

I'd like to complete this by turning to you, dear fellows, you are the centre of attention today. First, I'd like to say that in our opinion you, the class of 2021, has been a very hard-working and dedicated group. I believe you've all benefitted greatly from the training; in a general sense from the various lectures and assignments and more specifically from your project work. I know that you'll now be able to apply your newly acquired knowledge for the benefit of your home-country. I also hope that your stay in Iceland was to a large extent enjoyable and memorable; I for one certainly enjoyed interacting with you and I can especially mention the week we spent travelling back and forth to the North – that was lots of fun!

Congratulations, all your hard work and sacrifices have and will pay off. I, and the GTP staff, wish all of you a safe journey back home, a happy reunion with your families, success in your professional carriers and a long healthy life ahead. Don't forget to stay in touch with us, that's becoming easier and easier with the help of the ever-growing internet and social media. We also hope to see all of you again at some point in the near future.

Thank you and stay safe!