

Why the geology discipline in Finland is at stake

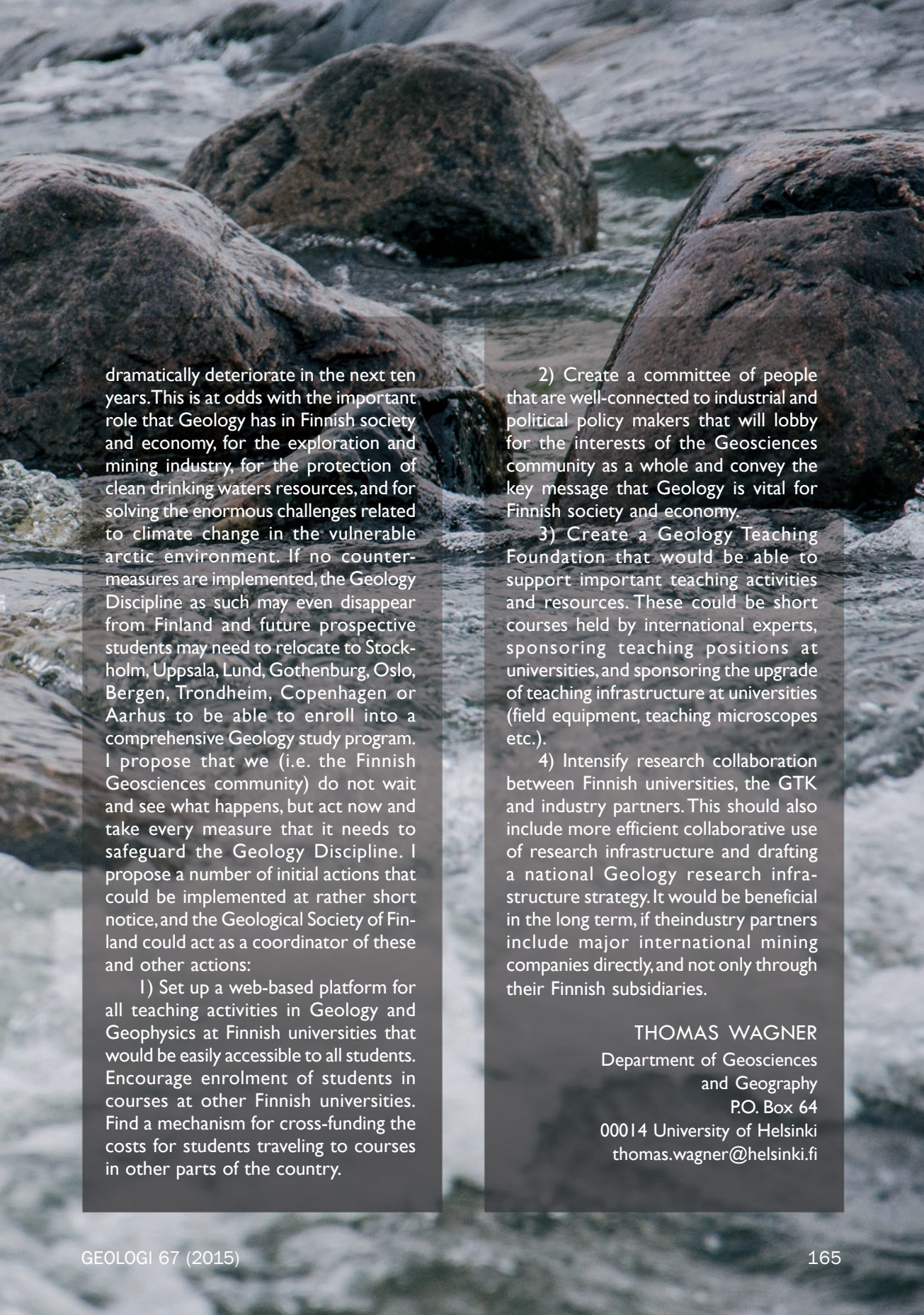
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I have been a professor of Economic Geology at Helsinki University since 2012, after having held positions as postdoctoral researcher at McGill University (Canada) and as lecturer at Tübingen University (Germany) and ETH Zürich (Switzerland). When I arrived in Finland and started to develop my research and teaching program, I noticed two features that make the Finnish Geosciences community somewhat different from communities in other parts of the world. For the first, the Geology (or Geosciences) departments are rather small compared to for example those in the neighboring Nordic countries of Sweden, Denmark and Norway. This is readily seen by the number of core teaching staff (professors and lecturers), the number of PhD students and Postdocs and the analytical and experimental laboratory infrastructure. Second, the lack of resources in the small university departments is compensated for by a very effective and well organized network of research and teaching collaborations that involve different Finnish universities, the Geological Survey of Finland (GTK) and senior geologists working in the industry.

This teaching and research network, which is vital for the Finnish Geology community, is now at stake because of

the massive and destructive budget cuts that the Finnish government has imposed on universities and government research organizations. Oulu University has considerably downsized their Geology and Geophysics departments and integrated the remaining units into the Oulu Mining School. The two small Geosciences departments at Turku University and Åbo Akademi will come under massive economic pressure in the years to come and this will invariably result in much more focused research and teaching portfolios. The Geological Survey of Finland (GTK) has already seen a considerable downsizing in recent years, accompanied by refocusing their activities on applied research and on providing geological services for the Finnish society. It will certainly not help that the GTK has just announced that it will further reduce their staff by 90 people. The Department of Geosciences and Geography at Helsinki University is still able to offer a rather broad Geology education and comprehensive research programs. However, in the current economic and political climate that specifically targets budget cuts at research and education, it is only a matter of few years until this capacity will also be lost.

Reflecting these unpleasant developments, I conclude that there is a high risk that the quality of Geology teaching and research in Finland will



dramatically deteriorate in the next ten years. This is at odds with the important role that Geology has in Finnish society and economy, for the exploration and mining industry, for the protection of clean drinking waters resources, and for solving the enormous challenges related to climate change in the vulnerable arctic environment. If no counter-measures are implemented, the Geology Discipline as such may even disappear from Finland and future prospective students may need to relocate to Stockholm, Uppsala, Lund, Gothenburg, Oslo, Bergen, Trondheim, Copenhagen or Aarhus to be able to enroll into a comprehensive Geology study program. I propose that we (i.e. the Finnish Geosciences community) do not wait and see what happens, but act now and take every measure that it needs to safeguard the Geology Discipline. I propose a number of initial actions that could be implemented at rather short notice, and the Geological Society of Finland could act as a coordinator of these and other actions:

1) Set up a web-based platform for all teaching activities in Geology and Geophysics at Finnish universities that would be easily accessible to all students. Encourage enrolment of students in courses at other Finnish universities. Find a mechanism for cross-funding the costs for students traveling to courses in other parts of the country.

2) Create a committee of people that are well-connected to industrial and political policy makers that will lobby for the interests of the Geosciences community as a whole and convey the key message that Geology is vital for Finnish society and economy.

3) Create a Geology Teaching Foundation that would be able to support important teaching activities and resources. These could be short courses held by international experts, sponsoring teaching positions at universities, and sponsoring the upgrade of teaching infrastructure at universities (field equipment, teaching microscopes etc.).

4) Intensify research collaboration between Finnish universities, the GTK and industry partners. This should also include more efficient collaborative use of research infrastructure and drafting a national Geology research infrastructure strategy. It would be beneficial in the long term, if the industry partners include major international mining companies directly, and not only through their Finnish subsidiaries.

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