



## Press release: Polycrisis-addressing Initiative Wins 2023 Frederik Paulsen Award

The third Frederik Paulsen Arctic Academic Action Award (FP Award) has been awarded to Minik Thorleif Rosing in a ceremony today at the Arctic Circle Assembly in Iceland. His initiative proposes to use glacial rock flour to reduce atmospheric carbon dioxide (CO<sub>2</sub>) concentrations, improve global food security, and bring new business opportunities to Greenland.

The award is named after Frederik Paulsen who for decades has been a prominent supporter of scientific research and collaboration on the polar regions. The award is designed to recognize scientific and academic initiatives that are action-oriented and hold potential for addressing the challenges and critical needs posed by climate change. The prize comes with a 100,000-euro unrestricted grant that is intended to help develop the ideas through outreach, engagement, and communication.

The winning initiative is led by Minik Rosing, Professor of Geology at the GLOBE Institute of the University of Copenhagen in Denmark. The initiative proposes to use glacial rock flour to reduce atmospheric CO<sub>2</sub> concentrations, improve global food security, and bring new business opportunities to Greenland.

As the world struggles with grand challenges, the glacial rock flour offers a solution to multiple problems. Abraded from the Greenland bedrock by the movement of the ice sheet, the rock flour is a plentiful and naturally occurring concentrate of mineral nutrients. Stimulated by heat and humidity, a process known as weathering releases the nutrients from the rock flour and simultaneously binds atmospheric CO<sub>2</sub>. Thus, when used to treat soil in tropical and even temperate climates, the glacial rock flour can help mitigate greenhouse-gas induced climate change and at the same time increase crop yield. In oceanic settings, the rock flour binds CO<sub>2</sub> and also reduces the acidification of seawater. The glacial rock flour project offers a scalable solution which stimulates natural systems to consume CO<sub>2</sub>, strengthens the resilience of ecosystems, and can also provide economic benefits to Greenland.



“Globally, the Arctic has become the symbol of accelerating climate disaster; a frail, pitiful region in need of help and sympathy. I hope our project can redefine the Arctic as the go-to region for solutions to global problems and inhabited by peoples with agency and impact,” Minik Rosing states.

The winning project was selected from a shortlist of four nominations. “Minik Rosing works locally in the Arctic to solve global challenges. His research may influence local economy, reduce CO<sub>2</sub> emissions globally, and induce increased food production in areas far from the Arctic. He is a respected scientist and a pioneer for the young generation in his homeland,” says Anne Husebekk, member of the Award Council and Vice-chair of the UArctic Board.

The Frederik Paulsen Arctic Academic Action Award is a collaboration between Arctic Circle and UArctic. To learn more about the award and the 2023 shortlisted nominees, visit the award webpages at [www.uarctic.org/actionaward](http://www.uarctic.org/actionaward).

*[The Frederik Paulsen Arctic Academic Action Award](#) provides high-level recognition for innovative ideas that transform knowledge into action to help address the impacts of climate change in the Arctic. The prize comes with a 100,000 euro unrestricted grant that is intended to help develop the ideas through outreach, engagement, and communication.*

*[Arctic Circle](#) is the largest network of international dialogue and cooperation on the future of the Arctic and our planet. It is an open democratic platform with participation from governments, organizations, corporations, universities, think tanks, environmental associations, Indigenous communities, concerned citizens, and others. It is nonprofit and nonpartisan.*

*[UArctic](#) is a network of nearly 200 universities, colleges, research institutes, and other organizations concerned with education and research in and about the Arctic. UArctic builds and strengthens collective resources and infrastructures that enable member institutions to better serve their constituents and their regions. Through cooperation in education, research, and outreach UArctic enhances human capacity in the North, promotes viable communities and sustainable economies, and forges global partnerships.*



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