

# A Frozen-Ground Cartoon

## Explaining international permafrost research using comic strips

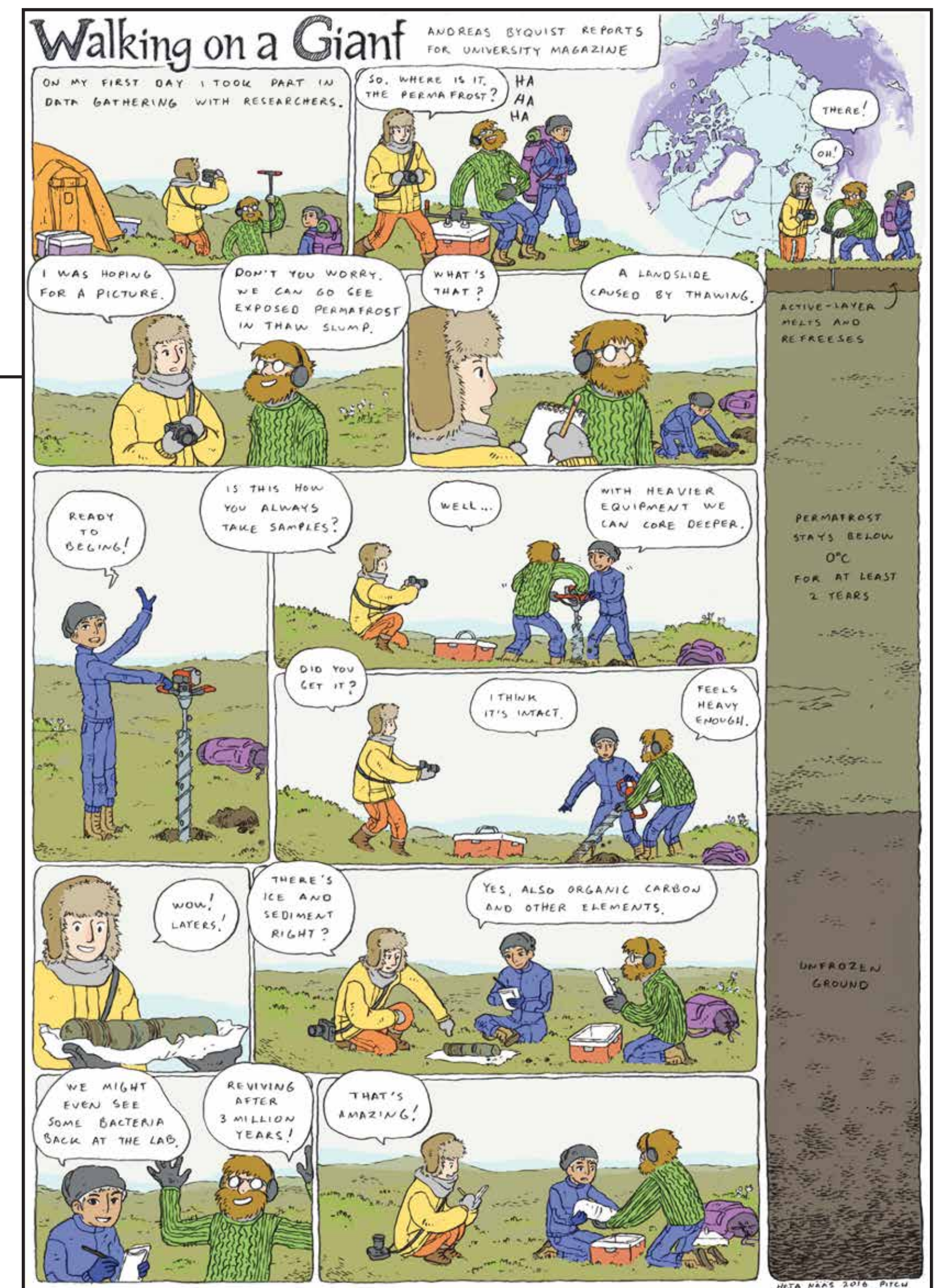
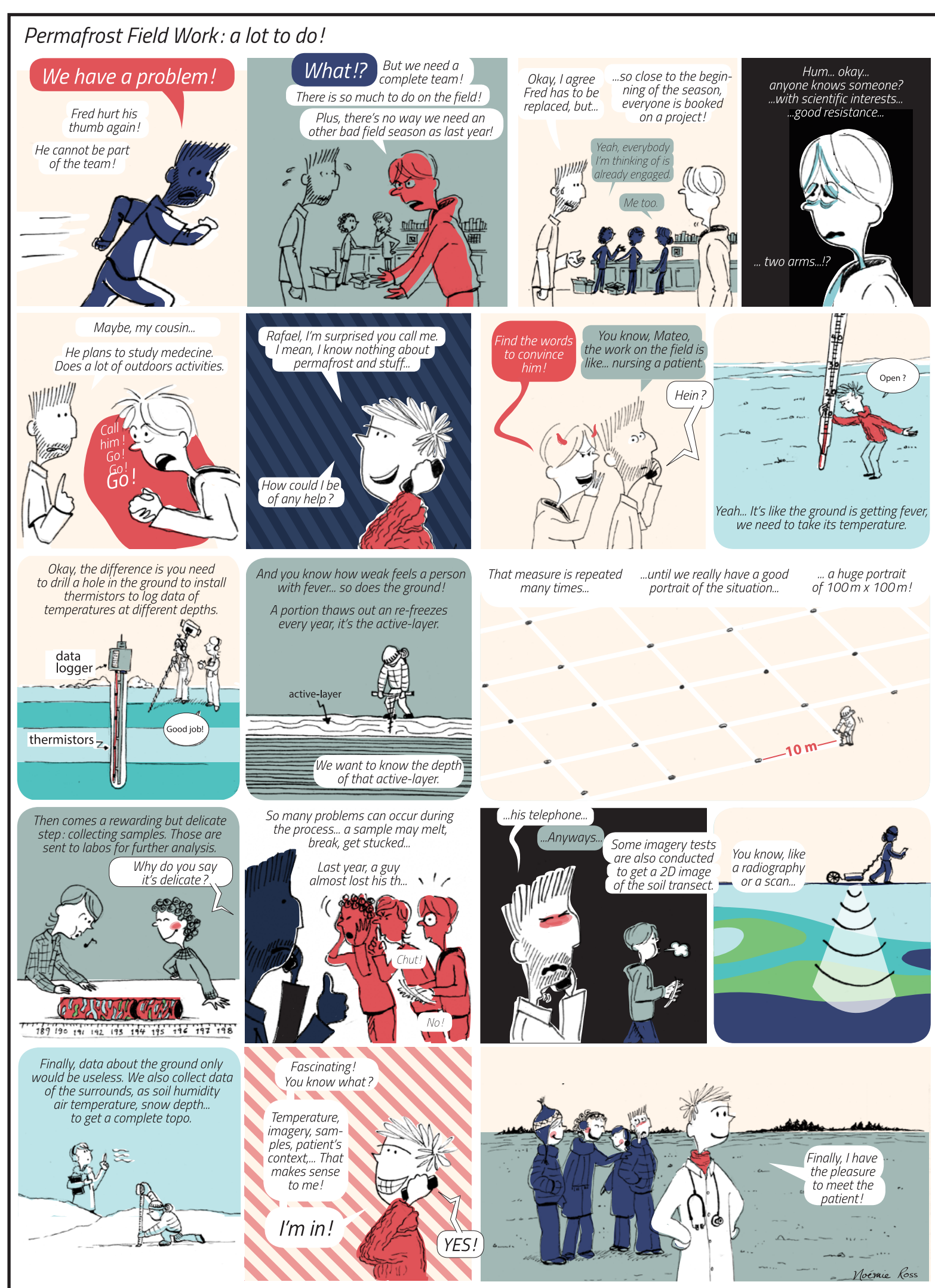
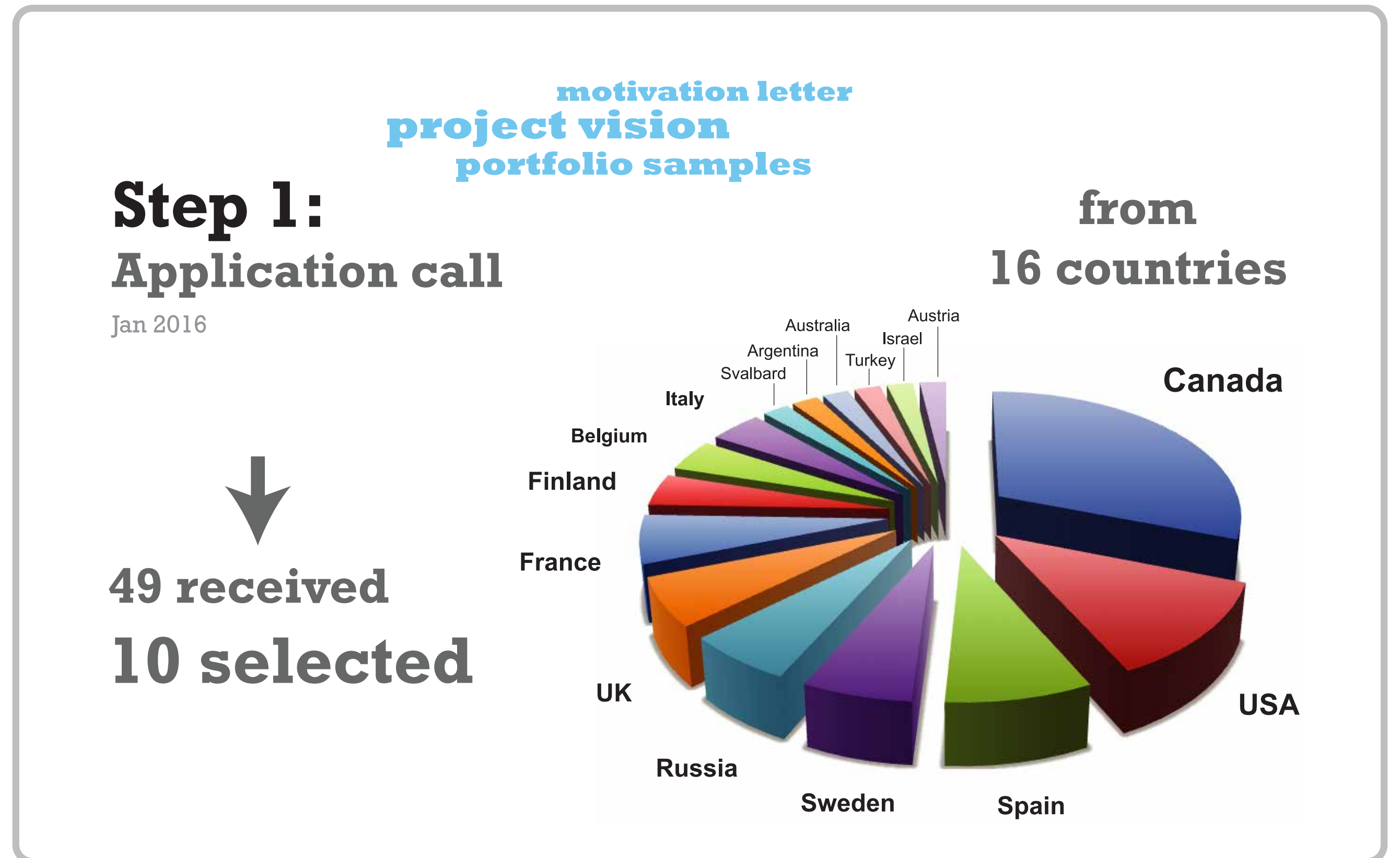
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### Summary

Apart from people in cold region communities and a small – although steadily growing – scientific community, the general public knows very little about permafrost properties, its dynamics in response to climate change, and the research going on in the field. We are addressing this by making permafrost science accessible to children, youth, their parents, and teachers. We are producing a **100% outreach-related project** that aims at 'Fostering permafrost research to the ends of the Earth' (<http://ipa.arcticportal.org>), but with a casual approach via a **series of comic strips**. Cartoons are excellent ways to communicate messages in today's media landscape: they are graphic, funny and direct, and can be rapidly shared via social media to reach many people. Our outreach project targets the general public, focusing on young students who have to choose career paths at the high school or college levels. By introducing them to permafrost research activities, particularly fieldwork, our 'Frozen-Ground Cartoon' will enhance the dissemination of permafrost knowledge and broaden the international community of permafrost 'lovers'. This new project is **coordinated by a core group of permafrost early career researchers** from Canada, Germany, Sweden and Portugal (in collaboration with an 'external senior advisor'), and is **endorsed by the International Permafrost Association (IPA)** as a targeted 'Action Group'. First, we received nearly 50 applications from 16 countries (Step 1). Ten artists were selected to produce a one-page pitch (Step 2). We finally chose two artists to work on the comic strips (Step 3).



### Step 3: Collaboration with the artists

Apr-Jun 2016

**Noémie Ross**  
Canada

Guten Tag!  
Bonjour!  
Hi!

My name is Noémie Ross. I am an illustrator / cartoonist / graphic designer.

I create illustrations for a magazine that popularizes mathematics; I published a graphic novel about Thalès de Milet, an ancient Greek mathematician; I am working on another graphic novel about Eratosthenes; I was laureate for a short animated film. My dream is to create kid's books!

My first career was as an occupational therapist. I enjoyed working with people in rehabilitation centers for almost ten years.



I'm from Montreal. I live in a blue house, in the blue province of Quebec in Canada. My kids encourage me a lot!

I would love to hear from you...  
noemieross@gmail.com

**Q** What I like about participating in the Frozen Ground Cartoon Project?

**A** To be able to transfer information through my creative work. I must first start by learning more on the subject.

GRAPHIC NOVEL illustration  
creation DESIGN  
STORIES ideas

permafrost distribution



### Acknowledgements

This project is endorsed by the International Permafrost Association (IPA) as a targeted 'Action Group'. The 'one-page pitch' step was funded by the Permafrost Young Researchers Network (PYRN) and the Canadian research program 'Arctic Development and Adaptation to Permafrost in Transition' (ADAPT). H. Nääs was supported by Climate and Cryosphere (CliC) to attend ICOP.



**Heta Nääs**  
Finland

Hi!  
My name is Heta Nääs.

I call myself a part time illustrator with a focus on comics/cartoons. I make comics about mice for children's nature magazine and publish autobiographical comics in my blog ([grimbird.sarakuvablogit.com](http://grimbird.sarakuvablogit.com)). I have self-published two comics, one about a post-apocalyptic world and magic, and other about sweating problems and love.

My education revolved around arts and ceramics until I had a kind of an environmental awakening and jumped into a masters programme in Creative Sustainability. I heard about this project from a former classmate and got excited right away. Frozen-Ground Cartoon project was an opportunity to work with something unfamiliar, the permafrost science, as well as with sustainable development and comics which are more familiar to me. Creating the stories with actual scientists seemed like an experience I did not want to miss.

I live in Helsinki, Finland.

To contact:  
heta.happonen@gmail.com

