

“I’m surprised that this hasn’t been around for a long time!”



Pioneer Fellows Dominic Jud and Burak Çizmeci want to bring remote-controlled and semi-autonomous construction machines to the market. Initial test trials (pictured in Sisikon) have been promising.

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For several years now the Dätwyler Stiftung in Altdorf has been funding projects at ETH Zurich. Having recently started to include young researchers too, managing director Susanne Döhnert explains why the entire Alpine arc is set to benefit.

Why does the Dätwyler Stiftung support research and teaching at ETH Zurich?

Firstly, ETH is a renowned national institution of key importance to research and teaching in Switzerland. It researches and works on topics that are also of great relevance to the canton of Uri. Secondly, our two founders, brothers Peter and Max Dätwyler, studied at ETH. Finally, Dätwyler Holding Inc., which used to belong to the founding Dätwyler family, is always in need of highly qualified specialists. This is why we'd like the name Dätwyler to be a presence at ETH, even though we've always been independent of the company.

After ETH Week 2019, the foundation chose to support the Pioneer Fellowship shared by Dominic Jud and Burak Çizmeci. What was it about the two young entrepreneurs' project that convinced you?

There's clearly an enormous demand for remote-controlled excavators and other construction machines. Here in the canton of Uri, we don't need to be convinced of that: there are rockfall areas and exposed alpine roads or inaccessible paths in the mountain forests that need to be maintained. It would be invaluable to have dangerous work in unreachable terrain – resulting from natural disasters, for example – carried out from a safe distance. Remote-controlled and semi-autonomous construction machines would be of enormous benefit not only to us in Uri, but to all mountain cantons and, with the effects of climate change, the urgency of such solutions is set to rise. In our digital world, I'm surprised that this hasn't been around for a long time!

But apparently such a challenge could only be met by the expertise of the two ETH Pioneers, using augmented reality and their sophisticated technology from the Robotic Systems Lab. When you run a foundation, it's important that not only the project but also the people involved align with the foundation's purpose. Because of our history, the Dätwyler Stiftung has a strong entrepreneurial spirit. In this respect, Dominic Jud and Burak Çizmeci are a perfect fit for us.

How is the exchange between the foundation and the researchers?

The relationship to a project is completely different when you get to know the people behind it. The exchange with the two young researchers is both fascinating and refreshing. They're fully immersed in the topic and know their subject inside out. We also valued the fact that the project's proof of concept was carried out in Sisikon, i.e. on Uri ground. The rockfall on the Axenstrasse last year provided the perfect opportunity to combine research with real clean-up work.

Are there any other topics of importance to the canton of Uri that you could imagine funding at ETH in the future?

Basically, research on natural events and natural hazards – anything to do with mountains, tunnels and rocks – is relevant to us and worthy of funding. In addition, the topic should be scalable to other cantons and countries, ideally to the entire Alpine arc. This is why we intend to remain in dialogue with ETH.

More on Pioneer Fellowships

Proof of concept in Sisikon



“With climate change, the urgency of solutions like those offered by remote-controlled construction machines is set to rise.”

Susanne Döhnert
Managing director Dätwyler Stiftung

<https://ethz-foundation.ch/en/spotlight/talents-ir-im-surprised-that-this-hasnt-been-around-for-a-long-time/>

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