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## Subito! E-Newsletter #3

### August 2017

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### Introduction

Hello and welcome to the world of SUBITOP. In this newsletter you can read about our latest short course on Analogue modelling in Utrecht University, and then get to know some of the non-research aspects of SUBITOP. You will find an introduction to the Classroom Partnership Programme, an outreach initiative to bring research to high schools. You can then get to know a few of the ESRs more personally. Happy summer!

### 1 Utrecht short course, 3-7 July 2017

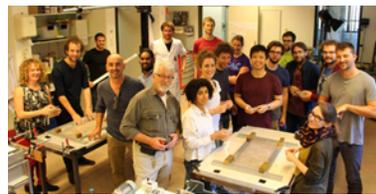
The SUBITOP ESRs rejoined in the Utrecht TecLab, The Netherlands, three months after the Numerical Modelling short course in Edinburgh, UK, but this time for Analogue Modelling! The third short course of the programme took off without a glitch thanks to Prof. Dimitrios Sokoutis, Dr. Ernst Willingshofer, and Dr. Fred Beekman of Utrecht University.



The SUBITOP ESRs were also joined by four external PhD

students, who were all warmly welcomed into the group.

The majority of the ESRs did not have experience with



analogue modelling, so this was a great opportunity for us to learn about making an analogue model. The aim was to introduce the group to building experiments that test ideas about tectonic plate strength and behaviour. The organisers employed a learning-by-doing philosophy, so we spent the week in the lab, eagerly putting

our new knowledge into practice – as a team!



The ESRs built five models to test what affects the coupling between the brittle and ductile layers in the crust. The models were separated to two groups, the first tested the effect of the brittle layer thickness, while the other tested the effect of strain-rate. The group then analysed the results and discussed how they relate to reality.



The ESRs also had a visit to Prof. Maarten Kleinhans and the newly built Metronome in his Tidal Facility. Maarten and his team use this 20 x 3 meter tilting-tank to study how shallow coastal waters are shaped by the supply of river water and tidal current.



The visit to the Metronome was followed by a visit to the Eurotank Flume Facility, where another team is looking into turbidity currents and the sediments they deposit. Visiting the two facilities gave us great insight into the different types and scales of analogue models in geoscience.



On the last day of the course, a presentation of the experiment results was followed by a talk from Frank Zwaan, who is in

the final leg of his PhD in the University of Bern (Switzerland). Frank talked about his analogue model experiments which use X-ray CT scanning to get more comprehensive images of crustal-scale model boxes. His talk gave us insight to using different technologies in experiments.

We thoroughly enjoyed the experience in the TecLab, as well as cycling around the beautiful city of Utrecht.



## 2 SUBITOP Classroom Partnership Programme

The Classroom Partnership Programme is an outreach activity with a substantial training component. Here, each young researcher in SUBITOP has a high school partner in the country of their institute, which means a partner school, high schoolteacher(s), and a class of pupils. The plan is to meet with the class regularly during the project and to establish a relationship with the pupils. This may motivate them to follow the individual research project of their particular ESR, and also to understand the goals, the rewards, and the possible pitfalls of science in general. The initiative aims to teach the ESRs how to set up a small education programme, and how to make their science accessible and relevant to a group of secondary-school adolescents. The teaching and communication skills will be essential in the life of the ESRs. For the pupils, it is useful to gain first hand information about how science works and perhaps also gain motivation to understand the Earth system and to be aware of the questions and challenges of scientific research. Some of the SUBITOP researchers have already met with their partner classrooms, and the experiences so far are splendid. There have been presentations about geoscience and research in general as well as interactive tasks and laboratory activities.

*Examples of Classroom Partnership Programme activities such as (from top to bottom): laboratory workshop in Utrecht, geoscience presentation in Barcelona, and interactive geoscience quiz in Rome.*



### 3 Focus on the ESRs

The SUBITOP ESR's lead rich lives. Although the project keeps them busy, they ensure their sanity by pursuing a range of interests. Some of the ESRs like to dabble in a variety of activities. Take Joost van den Broek, for example, while he enjoys relaxing at home with a good book or cooking a good meal, he also enjoys his exercise. Joost likes to go running, cycling and cross country skiing, so the Oslo forest serves as a convenient outdoor playground both in summer and winter.



*Joost van den Broek, running.*



*Richard Ott, drummer.*

Music dominates the free time of a few of the other ESRs; Richard Ott, for one, considers music the “best thing on earth” and plays the drums for the rock band Children of Indocility.

Kristóf Porkoláb is another one of our resident musicians, although he sometimes has to put down his saxophone to climb some rock walls.



*Kristóf Porkoláb, saxophonist.*



*Malwina San-Jose, pilot.*

Climbing is a popular activity amongst this group, but Malwina San-Jose goes even higher up and takes to the skies. Before joining SUBITOP, Malwina served as a full time flight instructor - it all started when she was 14 and fell in love with a cloud, she has been chasing it ever since.



*Tree blowing in the wind, by Arthur Briaud.*

Arthur Briaud, on the other hand, prefers to draw his own clouds. Drawing is Arthur's relaxing activity of choice, pictured to the left is one of his beautiful works. You can find more on his Instagram page 'art\_draw\_something'.

Relaxing activities can take various forms, Nico Schliffke likes to unwind both his body and mind with regular karate. Nico started practicing Karate 15 years ago and now teaches both children and adults.

This is just a snippet into some of the ESRs' lives. One thing comes across very clearly: this is not a boring bunch!



*Nico Schliffke, karate sensei.*



Newsletter by Manar Alsaif, Kristóf Porkoláb and Kittiphon Boonma, with input from other ESRs.