For a new DFG-funded research project investigating soil structure formation and soil erosion linked to microorganisms and vegetation along a climate gradient in Chile, I invite applications for a

**PhD Position (Soil Science)**

(Start date: 01.01.2019, duration: 3 years, salary: pay grade TV-L E13, 75%).

The joint project ‘Microbial Engineers – Drivers of Earth Surface Development and Stabilization’ explores how the development of soil environments in relation to changing climate conditions stabilize and shape the Earth’s surface. It is part of the EarthShape project (www.earthshape.net), a consortium of interdisciplinary projects in Geology, Ecology, Soil Sciences, Geography, Microbiology, Geophysics, and Geochemistry. The four study sites are located along the Chilean Coastal Range, which features one of Earth’s most spectacular vegetation gradients controlled by a climate ranging from hyperarid to humid temperate.

**Project description:** The successful applicant will work within an interdisciplinary team of experts from soil science and geomorphology, microbiology and geoeology. At the Chair of Soil Science of the Technical University Munich in Freising-Weihenstephan, we will use a range of experimental and analytical techniques. The project will include longer field sampling campaigns, with the first campaign taking place after the kick-off in March 2019 in Chile. Laboratory scale experiments will include long-term incubation experiments using intact soil cores. Analytical techniques will reach from analysis of the chemical soil and organic matter composition to imaging and spectromicroscopic techniques. We will work in close cooperation with the German Research Centre for Geoscience in Potsdam and the Eberhard Karls University Tübingen.

**Qualifications:** I seek an enthusiastic graduate student holding an MSc degree in geoscience, geoeconomy, environmental sciences or related disciplines, with a focus on soil science and with a strong passion for research. Prior knowledge on stable isotope analyses, organic geochemistry and microbiology is an asset, but not required. Experience in soil fractionation, soil chemical and biochemical analyses as well as microscopic techniques is highly welcome. The candidate should have great social/verbal/communication and analytical skills and eagerness to develop multidisciplinary skills. Good written and spoken English is required. Spanish skills will be beneficial. A Class B driving licence is required.

**Terms of employment:** The successful candidate will be offered a position funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) for a fixed-term of 3 years. The earliest starting date is 01.01.2019. Salary is TV-L E13 (75%) according to the German TV-L system (Tarifvertrag für den Öffentlichen Dienst der Länder). Employment depends on final approval by the German Research Foundation. The candidate will work at TUM in Freising-Weihenstephan, a 30 min train ride from downtown Munich. Disabled candidates will be given preference over other equally qualified applicants. The University seeks to raise the number of women in research and teaching and therefore urges qualified women to apply.

Please send your application until 15th October 2018 as a single PDF file to soilpositions[at]wzw.tum.de with "PhD position EarthShape" in the subject line. Please include a cover letter, a short abstract of your final thesis, a full CV, certificates, and the names of 2-3 potential referees. For additional information on this TUM position, please contact PD Dr. Carsten W. Mueller (cmueller@wzw.tum.de).