

Development of production, packing and laying technologies for extremely coarse mat structures made of hay strands for the greening and renaturalisation of erosion-prone slopes

Problem / Motivation

- Increase in extreme weather events, such as heavy rainfall, due to climate change
- Increased instances of dry periods and increasing soil compaction due to heavier working equipment
- The consequences are surface washout, erosion and shallow landslides causing environmental and economic damage
- Demand for cost-effective, sustainable and regional solutions

Solution

- Development of a slope reinforcement mat and technologies for efficient production, packing and laying
- Use of 100 % organic materials with a focus on regional materials (for instance hay)
- Design of the mat structures with very coarse dimensions for good water storage, a sufficient contact surface for the plant roots and a longer service life
- Erosion control testing and characterisation from a textile-technological and application-oriented perspective

Project Launch

11/2024

Project Partner

Technische Universität Chemnitz, Professur für Montage- und Handhabungstechnik (MHT)

Landschaftspflege- und Forstdienstleistungen
Heinrich Meusel

Viktor Krogmann GmbH & Co. KG

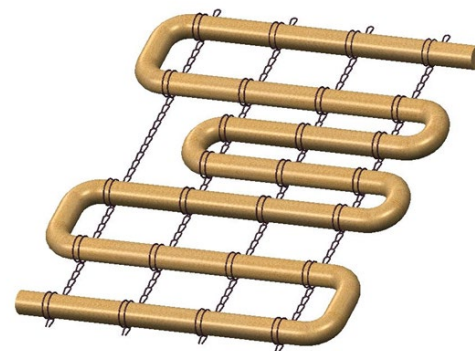
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Scheme of the planned coarse mat structures
(© TU Chemnitz)



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