

German company offers system, machinery and software for flood protection, dikes and dams

Summary

Profile type	Company's country	POD reference
Technology offer	Germany	TODE20230914022
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement with technical assistance	• World
Contact Person	Term of validity	Last update
Sabrina WODRICH	14 Sep 2023 13 Sep 2024	14 Sep 2023

General Information

Short summary

A German SME offers a patent-protected solution to build permanent and temporary flood protection systems as well as complementary software services regarding simulation and monitoring. The solution is characterised by effectiveness, efficiency, cost-advantages and safety. Engineering companies and end-users are sought to implement the system in their applications.

Full description

There is an increasing demand for flood protection for permanent structures, such as dams as well as for temporary flood barriers that need to be installed quickly. Challenges include safety requirements that need to be met, the short reaction time in emergencies and high costs.

A German company is an expert for flood protection and offers innovative solutions that can meet the requirements while at the same time realising cost advantages.

Basis are geotextile tubes filled with soil, that are produced on site and installed directly. These tubes are composite construction elements consisting of an outer geotextile and an encapsulated filling soil. In many cases this can be implemented with the locally available soil. The company's composite construction method allows the realization of reinforced, erosion-proof structures as well as soil savings of up to 45%. The properties of the structure can be

designed by the specific choice of the filling soil so that various new functionalities can be integrated into the structure. All pourable soils can be considered as filling materials. Due to the composite structure, erosion protection and high weight, the geotextile tubes offer strong flood protection barrier. Depending on height and size several tubes are combined.

The German company has patented their unique technical principle of producing and laying the tubes, that can be considered an endless sandbag. The tubes are stacked and filled with the German company's machinery enabling straight line structures, that can be built quickly and automatically. 150 m of tube can be laid per hour with one operator.

As in the event of flood fast and targeted actions must be taken to set up the protection, the German company has furthermore developed a simulation system. By means of their logistics simulation, scenarios can be simulated in order to determine how many emergency personnel and which equipment must be activated when and where in order to generate concrete deployment plans.

The company is looking for end-users and engineering companies to integrate the solutions in their offers.

Advantages and innovations

- Safe structures
- The production and laying process machinery reaches the same performance per hour as 420 people and 10,000 sandbags.
- More cost efficient construction than other systems
- Flexible system allowing for quick installation
- Latest research results applied through cooperation with renowned research institutes
- Construction operations are more sustainable in terms of CO2 equivalents

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

IPR granted

Sustainable Development goals

- **Goal 11: Sustainable Cities and Communities**
- **Goal 13: Climate Action**
- **Goal 6: Clean Water and Sanitation**

Partner Sought

Expected role of the partner

Partners are sought for distribution, implementation and use. The German company will provide engineering assistance and training regarding the use.

Partners could be engineering companies, public authorities, organizations in the field of flood and disaster protection

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **Other**
- **SME 50 - 249**
- **SME 11-49**
- **SME <=10**
- **Big company**

Dissemination

Technology keywords

- **10004011 - Flood Management**
- **10002009 - Natural Disasters**
- **10004008 - Water Resources Management**

Market keywords

- **08002007 - Other industrial automation**
- **08003007 - Other industrial equipment and machinery**
- **08004003 - Water treatment equipment and waste disposal systems**

Targeted countries

- **World**

Sector groups involved