

SOCORISK

Welcome to Terranimo® International

Terranimo® is a model for prediction of the risk of soil compaction due to agricultural field traffic

Start Terranimo® by clicking one of the buttons to the right

The different versions provide country-specific soil types

Terranimo® Global

Terranimo® Denmark

Terranimo® Norway

Terranimo® United Kingdom

Terranimo® France

Terranimo® Belgium-Flanders

Terranimo® Finland

Terranimo® Netherlands



An introduction to Terranimo®

IMPLEMENTATION OF SOIL COMPACTION RISK ASSESSMENT SYSTEM - END-USER'S EVALUATION OF POTENTIALS AND BARRIERS

SoCoRisk aims to generalize the use of the decision support tool for prevention of soil compaction called Terranimo. Therefore, the project will identify and address potentials and barriers of using the decision support tool in Europe through a transdisciplinary approach with the involvement of soil scientists, agronomists, and social scientists. End-users will have a central role in the project: 4 to 5 farms will be chosen as case studies in each of the five participating countries (Norway, Sweden, Denmark, Switzerland, Italy). Soil quality is threatened due to traffic with modern agricultural machinery. Compaction of the subsoil is effectively persistent. Soil ecosystem services related to protection of the environment are significantly affected by subsoil compaction.

BACKGROUND

Soil compaction due to traffic with modern agricultural machinery is one of the major threats to soil quality. Ever increasing weights of farm machinery particularly result in compaction of the subsoil (the soil below tillage depth) – subsoil compaction is particularly serious because it is effectively persistent. Compaction adversely affects soil ecosystem services, in particular regulating services (e.g. flood control) and production services (e.g. agricultural production), resulting in significant ecological and economic damage to farmers and society.

A decision support system for evaluation of the soil compaction risk during field traffic (Terranimo®, www.terranimodk) is freely available online. However, a general use of this tool is still needed.

MAIN PROJECT ACTIVITIES

We will identify and address potentials and barriers of using Terranimo® in its present form in the participating countries along a north-south gradient in Europe in a transdisciplinary approach involving soil scientists, agronomists, and social scientists as well as farmers, contractors, advisers and representatives from authorities. Based on the identified barriers and potentials, we will develop new ways to present the simulation outputs to farmers, and produce recommendations for a successful use of Terranimo® for countries not included in the consortium.



EXPECTED SOCIAL IMPACT

The whole society will benefit from an improved economic situation of farmers, contractors and machinery manufacturers, and from a reduction of soil compaction with its negative impacts on water bodies (erosion, leaching of nutrients and pesticides, flood) and from a reduction of greenhouse gas emission (denitrification, N₂O). Focus on protecting soil quality has increased in recent years as witnessed by EU initiatives like the RECARE project and by national initiatives. For example, the Danish Government asked for measures to mitigate soil compaction for potential inclusion in the revised CAP (Schjønning et al., 2019).

Keywords

- Soil compaction
- Decision support tool
- Stakeholder involvement
- Living labs
- Transdisciplinarity

Duration

01/03/2021 - 28/02/2024

TRL

Technology Readiness
Level 7

Consortium

Coordinator

- Mathieu Lamandé - Aarhus University, Denmark

Partners

- Francesco Morari - University of Padua, Italy
- Matthias Stettler - Agrifood Technology, Switzerland
- Trond Børresen - Norwegian University of Life Sciences, Norway
- Christian Hansen - SAGRO, Denmark
- Thomas Keller - Swedish University of Agricultural Sciences, Sweden
- Truls O.T. Hansen - Norwegian Agricultural Extension Service, Norway

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