

# Farmers and contractors opinion on a decision support tool for prevention of soil compaction

A decision support tool for prevention of soil compaction, recognized as a major soil threat in Europe, called Terranimo® can become a part of farmers strategic planning. The aim of the SoCoRisk project is to investigate barriers and opportunities to include prevention of soil compaction in farmers and contractors when planning agricultural operations, purchasing new machinery, or negotiating new contracts.

## How does Terranimo® work?

Terranimo® is a model for prediction of the risk of soil compaction due to agricultural field traffic. A combination of soil maps, weather information, and machinery can give farmers know how about the risk of soil compaction. If the risk is high, the farmer can choose different tires, reduce inflation pressure or wheel load to decrease the risk. Terranimo® enables farmers, advisers, students and scientists to use a complex knowledge, that would otherwise be difficult to intertwine.

“The ambition is to improve farmers’ planning of field operations, including hiring of contractors with their respective machinery, and further, to enable strategic planning of investments in new machinery and adjustments to crop rotations based on identification of critical field operations,” SoCoRisk Project Leader Mathieu Lamandé says. He is Senior Researcher at the Department of Agroecology at Aarhus University, and represents one of the five participating countries.

## Living labs in five countries to evaluate the tool

Researchers, agronomists, social scientists as well as farmers, contractors, advisors and representatives from the authorities in each of the five countries participating in SoCoRisk have been involved in the evaluation of the decision support tool.

“We have living labs in Norway, Sweden, Denmark, Switzerland and Italy. Here we have studied the potentials and barriers for using Terranimo®. The living labs have given us the opportunity to test the tool in different farming systems along the north-south gradient in Europe,” says Mathieu Lamandé.



The living lab results showed a huge interest for a further development and adaption of the online tool from a range of stakeholders in all the participating countries. There is a general interest among the stakeholders to use the tool strategically, but not on a day-to-day basis as it stands now. As a strategic tool Terranimo® can help decide which machines to buy, advise farmers when hiring contractors and in long-term strategic planning of field operations. Further, stakeholders reported that there is a lack of economic incentive to use the tool. In other words stakeholders need to know what the consequences of soil compaction means for them economically.



In each country, stakeholders have been actively participating to a first workshop to get their opinion about using Terranimo® in its present form. SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis showed similarities and differences between the five countries.

### Relevant link(s)

[www.terranimo.dk](http://www.terranimo.dk)

[www.soilcompaction.eu](http://www.soilcompaction.eu)

<https://ictagrifood.eu/node/44657>

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