



# Make all soils healthy again!

## Briefing

WUR Student Challenge



SPARK THE FUTURE,  
JOIN THE CHALLENGE!



WAGENINGEN  
UNIVERSITY & RESEARCH

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## Background

The EU organizes and finances a research programme in the years 2021-2027 (total budget 100 billion) based on five so called Missions. One of these Missions is: "Soil Health and Food". According to the FAO 30% of land in the world is in poor condition due to degradation of soils. If this problem is not tackled in the near future, producing enough food for the worlds population is a serious problem.

For this challenge we have rephrased the problem statement as: "Make all soils healthy again!". The challenge is not a classical research program, even though research will be involved, because the societal impact of the work (in society) is the central theme:

*Missions make a real difference in the lives of citizens and society as a whole. They boast the impact of EU-funded research and innovation by having ambitions, measurable and time-bound goal around issues that affect citizen's daily lives.*

The Mission Board of the soil health and food theme (Em. Prof. Johan Bouma is a member) is meeting now regularly in Brussels to define a "call", for programs to start in 2021. The student challenge is intended to produce fresh, innovative ideas shaping this particular program. These ideas will be communicated to the EU Mission Board and they welcome it!

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## Objective

Effective action to alleviate global societal challenges requires out-of-the-box thinking and disruptive innovation as well as cooperation across sectors and domains. Academic institutions have a crucial role to play in fostering and educating the future game-changers that have the knowledge, skills, competencies and mindset to lead such innovation and to tackle complex challenges. Student Challenges are an excellent and recognized means to contribute to this ambition.

The overarching objective of the project is to contribute to innovative approaches to make all soils healthy again. To focus discussions, the following definition of soil health is proposed:

**The capacity of a specific kind of soil to function, contributing towards achieving the UN Sustainable Development Goals (SDGs).**

As an extension thereof, the following specific objectives can be defined that have been formulated as:

1. What is soil health and how can it be measured?
2. How can land users and policy makers use soil health information to reach their goals?
3. What are effective ways of communicating soil health to a wider audience (general public)?

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## Participation

All WUR students are eligible in participating in this event and students can sign in individually but interdisciplinary teams are strongly encouraged. The timeline of participation is:



Development of the submission is through January - June 2020, containing meetings for students with experts in the working field and academic experts. The deadline of submission is the 8th of June 2020.

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## Advisory Board

The advisory board plays a very important role in the course of the Soil Challenge, as well as the learning journey of the teams. The advisory board is a group of stakeholders of public and private parties in the Netherlands and provides support during the course of the challenge. The winner of the Soil Challenge is chosen by the assessment of the advisory board. Members in the advisory board are:

- David van den Burg (KIBO, knowledge programme innovation in soil)
- Johan Bouma (Em. Prof Soil Science)
- Gita Maas (Ministry of Infrastructure and Water Management)
- Margot de Cleen (Rijkswaterstaat)
- Rio Pals (WUR)
- Willem Hendriks (NL ingenieurs)
- Henk van den Berg (VNG, Association of Dutch municipalities)
- Peter Ramakers (Province of North-Brabant)
- Tom Ligthart (TNO, Netherlands Organisation for Applied Scientific Research)

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## Assessment

The submissions will be evaluated on the following criteria:

### 1. Innovative

The product presents concepts or designs that can form the basis for further research or policy measures (including a delineation relative to existing ideas).

### 2. Complete

- The product addresses all three guiding questions, related to:
  - » What is soil health and how can it be measured?
  - » How can land users and policy makers use soil health information to do a better job?
  - » What are effective ways of communicating soil health to a wider audience (general public)?
- The product clearly documents the resources used (e.g. personal interactions with stakeholders, scientific literature, policy document). No financial budgets are required, emphasis is on (realistic) ideas.

### 3. Feasible

The product clearly shows how the idea/concept/design can contribute to soil health (the capacity of a specific kind of soil to function).

### 4. Impactful

The product shows clearly how it contributes towards achieving the UN Sustainable Development Goals (SDGs).

### 5. Targeted

The design/presentation of the product is concise, effective, innovative, inspiring and targeted at the intended audience (EU Mission Board "Soil Health and Food").

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## Deliverables

The final deliverable could consist of:

- A paper, report, video, PPT, etc. supporting the Mission Board of the soil health and food theme by addressing the call for: "Healthy soil and food", focusing on the three specific objectives mentioned above;
- Ideas and development of Networks (public-private-science) that can effectively work together focusing on the new mission call for healthy soil and food;
- Students, trained in collaboration with public and private parties who understand the social, economic and environmental character of projects and outcome of their work.

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## More information

Visit the website: [www.wur.eu/soilchallenge](http://www.wur.eu/soilchallenge) or send an email to [studentchallenges@wur.nl](mailto:studentchallenges@wur.nl)

You can also follow us at:



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## Registration

You can register by sending an email to [studentchallenges@wur.nl](mailto:studentchallenges@wur.nl).

Deadline for registration is **24 January 2020**.