



Open Call Topic Proposal

SHORT TOPIC NAME
Soil workability and humidity

1 - SPECIFIC CHALLENGE
1.1 Problem and business need Describe the challenge from a user point of view to be addressed by engaging external SMEs for a 6-month period. Max 600 words
<p>To be able to enter a field to do a work, machine need to find a ground strong enough to support the weight of them. That the reason why the prediction of soil workability is so important. Otherwise, farmers are going to fields and have to come back to farm because the ground is still too wet and therefore increasing the cost and the environmental impact.</p> <p>Soil humidity after rain to predict possibility of work in fields enabling better planting, application and harvest but also reducing cost of machinery</p>
1.2 Interoperability challenge Identify and describe which systems needs to be made interoperable and by which solutions Max 600 words
N.A.



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2 - TOPIC JUSTIFICATION

Why is that type of solution important to the DEMETER's ecosystem?

Map the topic to the DEMETER project objectives.

Max 300 words

Several pilots are working on plant protection, fertilizer application or harvest.

3 - TOPIC REQUIREMENTS

Identify, if necessary, the requirements that need to be met by the solution or SME in order to ensure the interoperability of the SME solution into Demeter's platform.

(E.g. Technology readiness level needed, use of open source, open standards, use of specific programming language, ethics requirements, security requirements, geographical requirements, data management requirements, intellectual property rights requirements, etc...)

Requirement type	Requirement description	Motivation
Technology readiness level		
Source code availability (Open source, etc..)		
Standards (Open standards, etc..)		
Programming language		
Ethics		
Security		
Geographical	EU coverage	
Data management		
Intellectual property rights		
Other(s)		



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4 - DELIVERABLES

The supported SMEs will be engaged with DEMETER for a 6-month period of time, divided by three sprints of two months. At the end of each sprint, there will be an evaluation process based on deliverables. What type of deliverable should be submitted by the SME at the end of each sprint?

(E.g. Presentation; feasibility test, operational test, integration test, deployment test, training session, ...)

Max 300 words

1st Sprint (M2)

Presentation

2nd Sprint (M4)

Feasibility test

3rd Sprint (M6)

Example with one pilot

5 - EVALUATION

Who, within DEMETER, should evaluate the submitted deliverables?

Advisory board , WP5 leader, cluster leader

6 - RESOURCES PROVIDED BY DEMETER

Describe the support activities or components that can be provided to the selected SME(s).

E.g. Training, technical support, data sets, infrastructure access, in-site visit, ...

Support Activity or Component	Within DEMETER, who provides the support or component?



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7 - EXPECTED OUTCOME

Identify the expected result of the SME contribution

E.g. Increased precision of ???, reduction in time of ???, Improved efficiency of ???, decreased consumption of ???, minimization of ???

Depending on the use case (Workability or humidity), the SME will increase the precision of soil humidity leading to improving uptime for machinery, minimizing soil compaction and improving efficiency of pesticide and nutrient application

8 - CONTACT

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