



Open Call Topic Proposal

SHORT TOPIC NAME
DEMETER BPM

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

Farm management implies using a range of data sources and creating actions based on the analysis of the collected data. A coherent and streamlined creation of actions and monitoring of their execution is of great importance to medium size and large agriculture companies to ensure efficient utilization of the work force and the company assets while contributing positively to overall success of the company. The application of a BPM in agriculture helps in separate the logical layer from the technical implementation (i.e., the process modelling and the software application development) which will ensure efficient sharing of data between business processes in real time with business processes integration. This integration allows setting a basis for planning each step of production process, optimal usage of all resources, defining work orders, defining products shipping plan, setting a marketing budget etc. Data are in many cases used as triggers for the next production process thus providing fluently activities workflow.

1.2 Interoperability challenge

Identify and describe which systems needs to be made interoperable and by which solutions

Max 600 words

The interoperability needs to be ensured in a workflow, that will be defined as a sequence of activities (and transactions) that must be performed; the actors responsible for specific activities; data that have to be sent, received and shared (between actors and/or workflows); and the format to use for the messaging.



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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

There are many processes in use on a farm, which are still managed using pen and paper or ad-hoc made tools. To improve the overall efficiency, introduction of the best practices from the enterprise industry in relation to business process modelling and execution is required. The main objectives addressed is the empowerment of farmer (O3) by identifying and demonstrating new services facilitating sharing of data between business processes and a series of heterogeneous data for collaboration and co-production for farmers. Through the standardization of farm workflows, as done in other scientific sectors, progress in the development could be achieved because better data sharing and integration of software applications could be done.

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	TRL 6 or higher	The proposed component should already be available and used in similar environment (\geq TRL5)
Source code availability (Open source, etc..)	Any	
Standards (Open standards, etc..)	REST interfaces, Data integrations standards	Component must have modular interfaces to be easily integrated in any system
Programming language	Java, Python, .NET	Also other widely used languages could be used
Ethics		
Security		



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Geographical		
Data management	NGSI-LD	
Intellectual property rights	Any	GPL licence is most welcomed to boost the usage of the component, but other proprietary licenses could be also proposed
Other(s)		

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)

Analysis of business processes to be integrated.
Business process modelling.

2nd Sprint (M4)

Integration plan for a few selected business processes defined.

3rd Sprint (M6)

Implementation and validation of a few selected business processes with integration to DEMETER framework.

5 - EVALUATION

Who, within DEMETER, should evaluate the submitted deliverables?

WP: 5/6/7



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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?
Pilot site.	Cluster leaders
Technical details for business integration	WP3 partners

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 ???

Improved workforce utilization.
Improved operation efficiency.
Resource usage optimization.

8 - CONTACT

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