SHORT TOPIC NAME
Demeter FMIS Enablers

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
Farmers use to provide information to public administrations for several reasons. Paying Agencies dealing with CAP funds request many information from them in order to pay the subsidies. CAP post 2020 forces paying agencies to monitor the entire territory for agro-environmental and CAP performance checks where Sentinel images are not enough. Then all EU Member States are going to request to the farmers specific Geo tagged photos with specific metadata requested to them in order to conclude the monitoring phase for the whole territory, including small parcels, or crops difficult to being identified by Satellite images. In order to facilitate information provision from farmers to FMIS or to Paying Agencies directly, it is being requested a Geo tagged photos APP using a common open API interface based on REST protocol to demonstrate DEMETER interoperability enables for FMIS.
1.2 Interoperability challenge   Identify and describe which systems needs to be made interoperable and by which solutions   Max 600 words
GeoTagged APP should interoperate with DEMETER Field Book, FMIS interfaces, IACS post 2020 deployed in EU Member States using same **REST Open API defined in DEMETER**

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

Every farmer must report to regional, national, European authorities with clear information for many reasons like Common Agricultura Policy (CAP), food security and safety, economical trades. However, there are most of the farmers dealing with plant-crop farming as a type of farm that do not count with Digital Platforms to facilitate data sharing with public, private organizations. There are also farmers who are not active agricultural producers but are maintaining land in good agricultural and environmental conditions. Sometimes they are grouped in cooperatives, sometimes they request the service to a SME, sometimes they go through bank services, or directly to public administrations. Farm Management Information Systems (FMIS) are conceptual models for decision support that should include many of the necessary software components required for data capture, data sharing and decision support. The challenge is to provide an interoperable framework under DEMETER architecture that might allow to provide different components as FMIS enablers like **Geotags APP, Digital Field Book, Machinery Data (IoT) & DSS** Because it could let Demeter achieve a better expansion and implementation and would allow to diverse pilots from various sectors to interoperate and share common components.
All farmers specially those dealing with plant-crop farming as a type of farm that do not count with Digital Platforms to facilitate data sharing with public administrations. Furthermore, there is one component, **"GeoTag Photos APP"** that will be mandatory in new CAP post 2020.

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	TRL7	There are many Geo tagged photos APPs already available in the market TRL9. Then we only need one with this open API to be deployed in several DEMETER pilots
Source code availability (Open source, etc..))	Open Source	In order to be integrated with other FMIS components
Standards (Open standards, etc..)	API Rest	DEMETER FMIS components are REST.

Open Call Topic Proposal

Programming language	Android, IOS, or multi mobile Platforms (Cordoba, Xamarin)	It must be used from a mobile phone, so it would be better if it is done in a dedicated programming language.
Ethics		
Security	Considering also GDPR and authentication mechanisms	To facilitate data sharing and links with Traceability component
Geographical	Spain, Ireland,	To facilitate farmers associations involvement
Data management		
Intellectual property rights		
Other(s)	Infographics, without specific language menus	It is important that can be used by farmers in all the EU.

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
Requirements, UML definitions. MAA sessions participation for co-creation and requirements definition
2nd Sprint (M4)
Development and test
Operational test of Geotagged Photos APP with FMIS prototype provided by DEMETER partners
3rd Sprint (M6)
Deployment an integration test

5 - EVALUATION

Who, within DEMETER, should evaluate the submitted deliverables?

Pilot cluster leaders involved. Technical Coordinator, Agricultural Coordinator.

6 - SUPPORT ACTIVITIES AND COMPONENTS Describe the support activities 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?
1 Webinar about DEMETER Architecture and FMIS Framework 2) Webinar about Farmers needs and Data Sharing Legal Requirements	Agricultural Coordinator, Technical Coordinator WP5, WP3
SW Component definition with harmonized API description for Rest	WP3, WP4 (TRAGSA)

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 ???
Geotagged Photos APP addressing API Rest definition provided in the call This will mean for farmers … To facilitate decreasing time for delivery information requested from public administration. To increase the content and quality of data for DSS in FMIS.

8 - CONTACT	
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