



Co-financed by the European Union
Connecting Europe Facility

Open IACS Overview

F. Ambrosino, M. Celino – Report Project 12 February 2020

Open IACS Overview

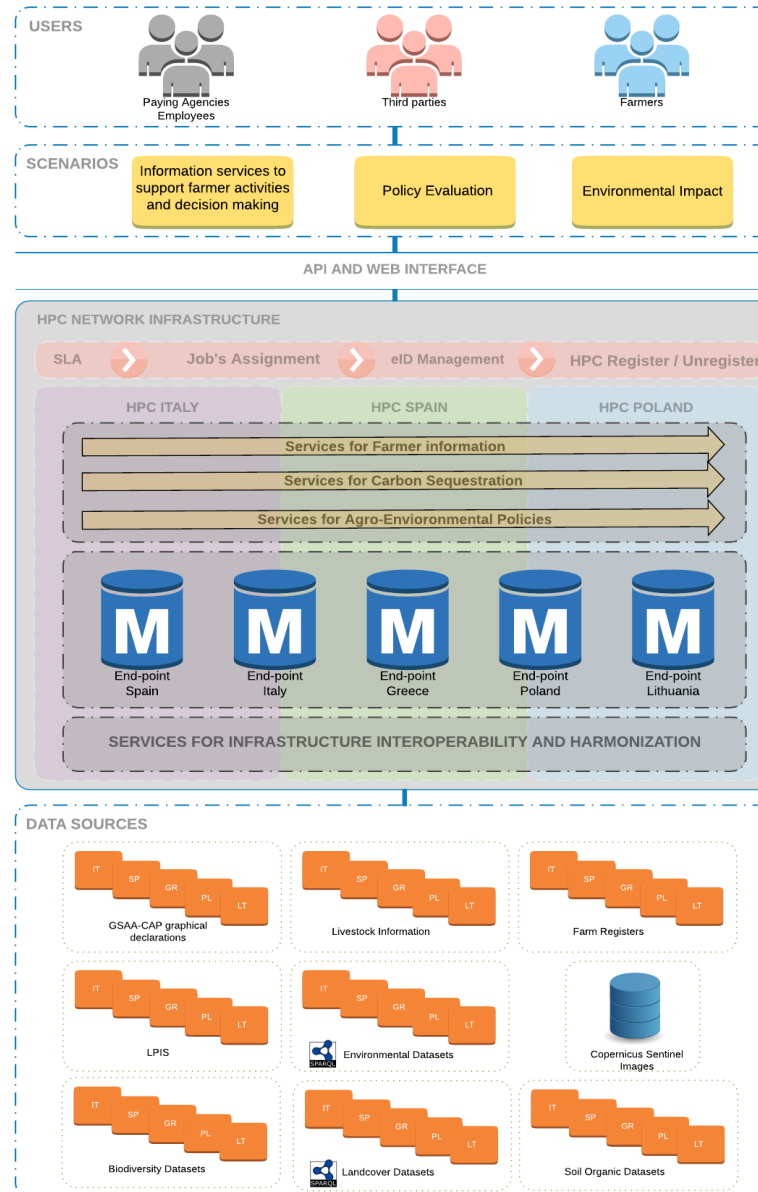
Open LOD platform based on HPC capabilities for Integrated Administration of Common Agriculture Policy (Open IACS)

The EU adopted an Integrated Administration and Control System (IACS) in 1992 to improve the efficiency with which direct payments were made to farmers under the Common Agriculture Policy (CAP)

The project will provide a true and open community platform for sharing solutions in the IACS domain through the Linked Open Data (LOD) paradigm

Open IACS infrastructure will facilitate the end-user access to HPC capabilities by means of automated management of service level agreement that assure the appropriate planning and allocation of resources among the HPCs hosting and the possibility to assign jobs seamlessly to the different providers included in Open IACS HPC infrastructure.

Open IACS Overview

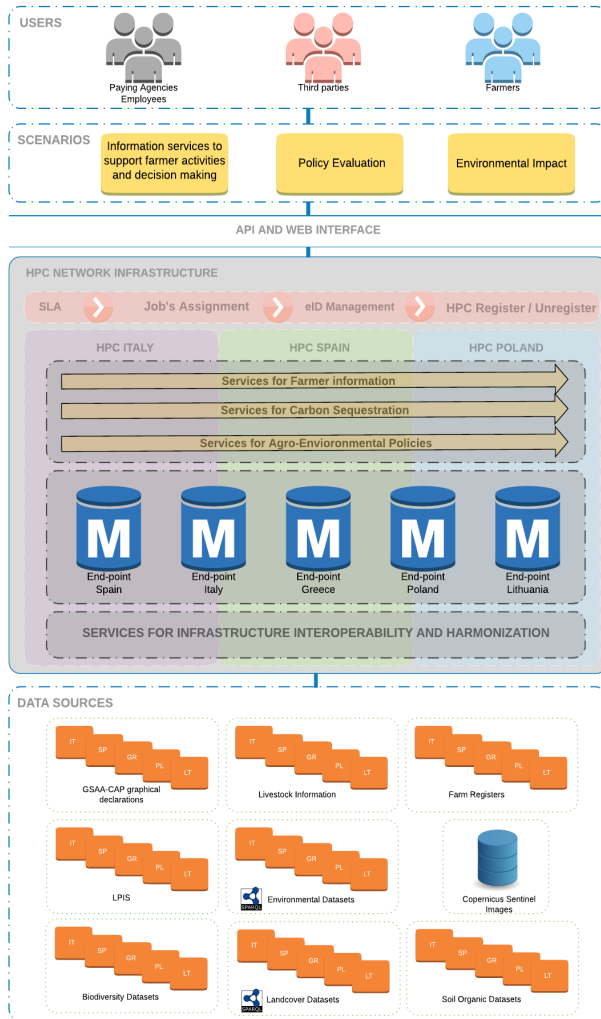


Users and Scenarios

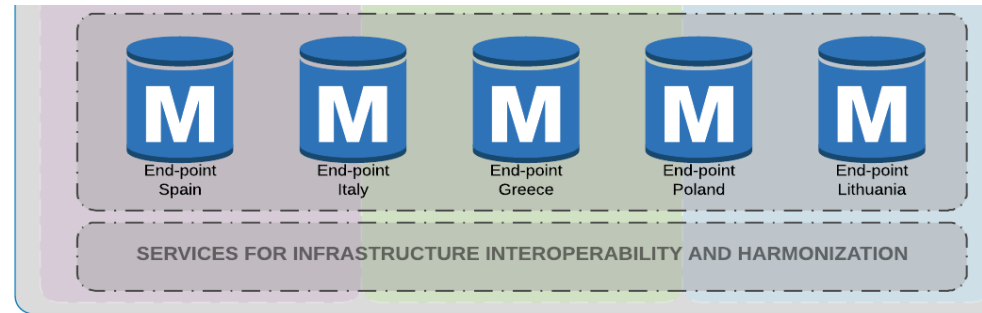
HPC services

DATA

Open IACS Overview

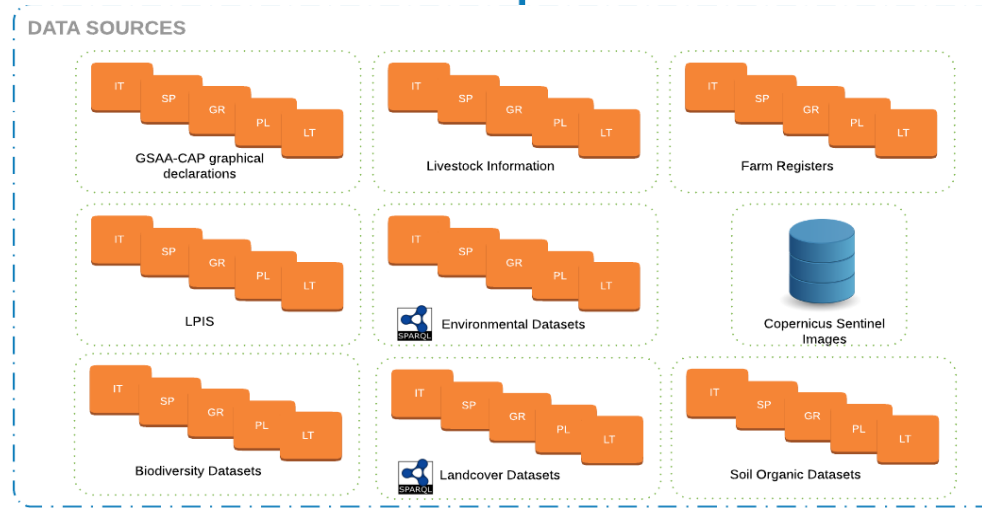


Design a network of interoperable Linked Open Data End-point considering information for Agri-environmental management of IACS policies



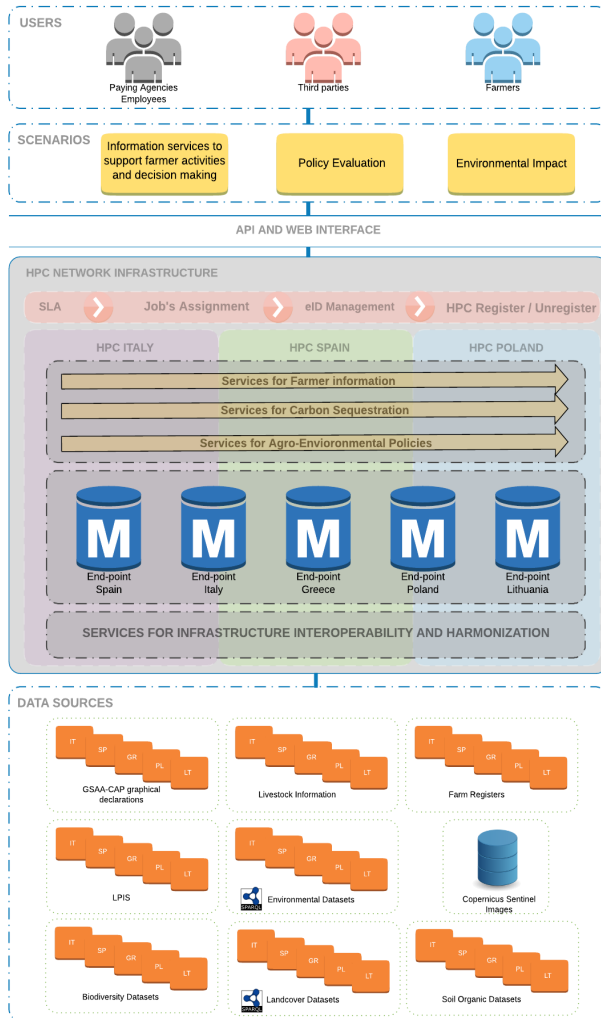
Design harmonized and interoperable Linked Open Data End-Points

Identify and agree on specific indicators to benchmark and verify inbound data at the source

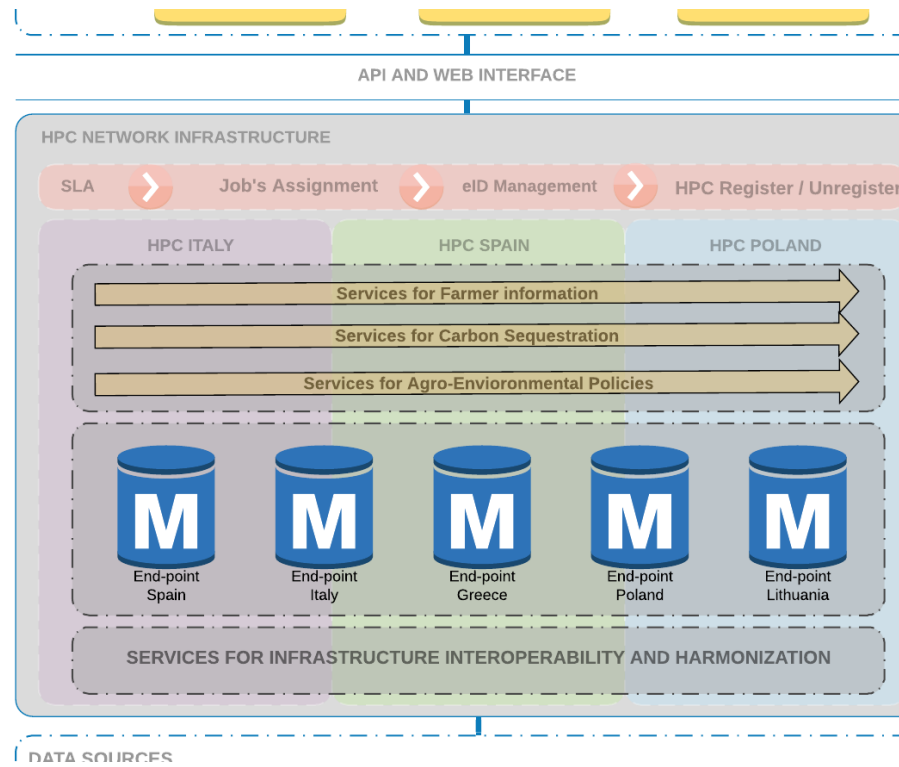


Design a common semantic model to represent and harmonize the data required to manage CAP and IACS, creating the possibility to harmonize, combine data from heterogeneous sources into integrated, consistent and unambiguous information

Open IACS Overview



Implement the common agri-environmental infrastructure for IACS policy management by means of increasing HPCs capabilities



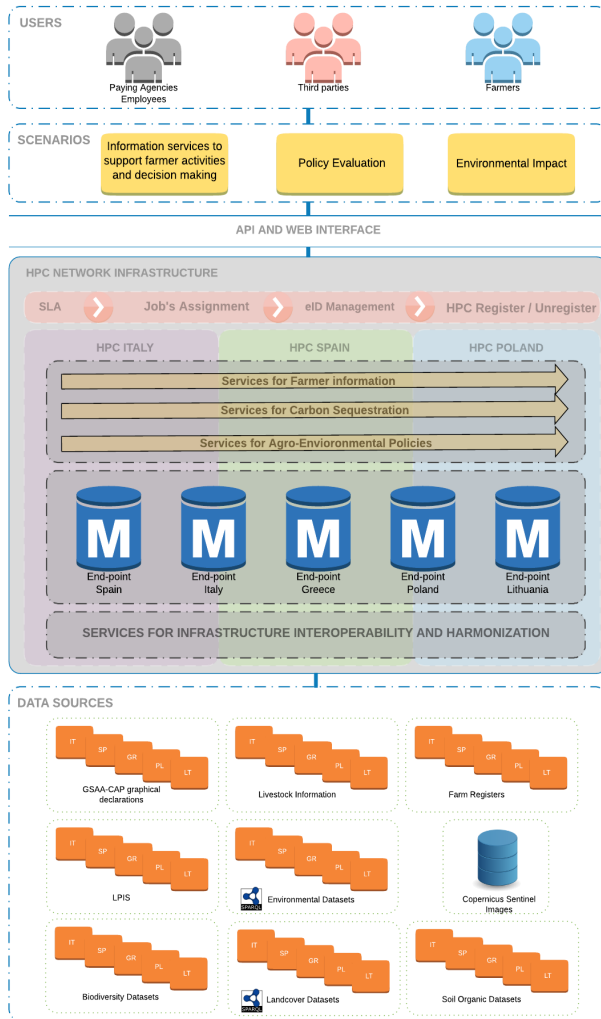
Design a model that assure the appropriate planning and allocation of resources among the HPCs hosting the services based on Service Level Agreements.

Design and implement a technical architecture and services to enable transfer of Open IACS services among HPCs

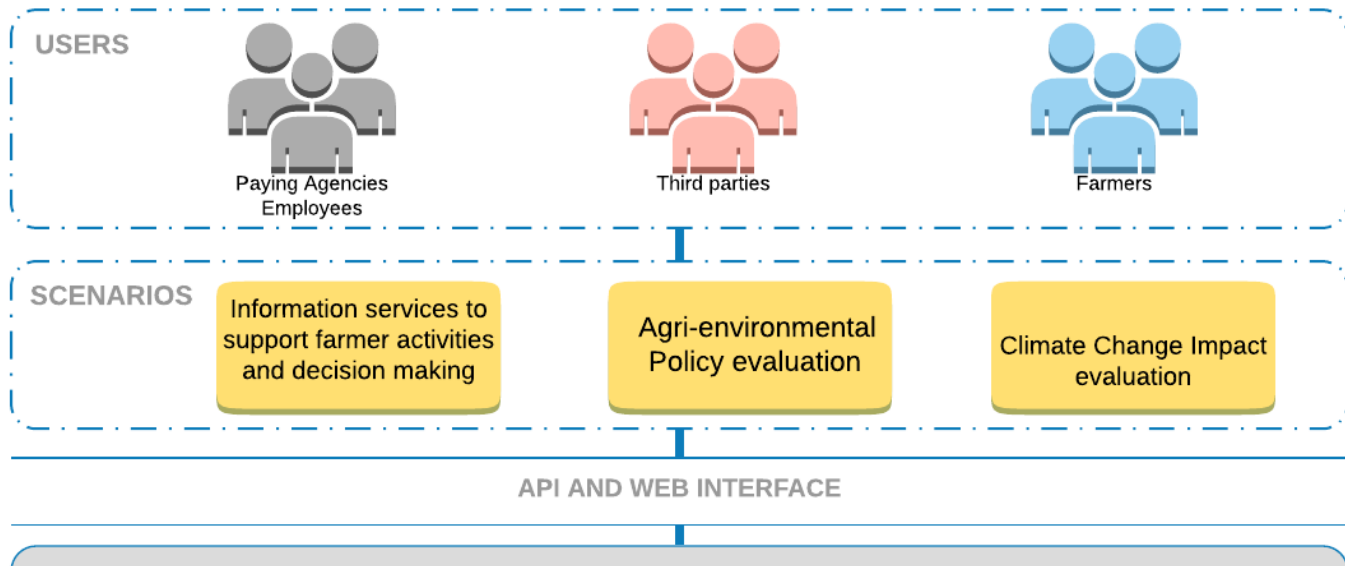
Integrate CEF already existing services (i.e. eID) to implement different levels of access to the services provided by Open IACS End-points infrastructure.

Design and implement a set of services to facilitate the calculation of the indicators and models considered in the common agri-environmental infrastructure for IACS policy management

Open IACS Overview



Demonstrate the usefulness of this infrastructure through its application in different scenarios of use



As ENEA we support the other Italian partners in Scenario 1

Open IACS Participants

Country	Paying Agency	HPC	Research Agency
ITALY	AGEA	ENEA	ISPRA, CREA
SPAIN	FEGA	SKAYLE	UC3M (coordinator)
GREECE	OPEKEPE		
LITHUANIA	NPA		
POLAND		PSNC	

10 participants from 5 countries

Project Budget

		Direct eligible costs				Indirect eligible costs	Total eligible costs	Estimated CEF contribution
		Personnel costs	Subcontracting costs	Other costs	Total			
	Total	3,853,005	0	334,820	4,187,825	293,147.75	4,480,972.75	3,360,729.56
	UC3M	315,005	0	36,000	351,005	24,570.35	375,575.35	281,681.51
	TRAGSA	640,000	0	29,000	669,000	46,830	715,830	536,872.5
	CREA PB	215,000	0	27,000	242,000	16,940	258,940	194,205
	ISPRA	121,500	0	32,500	154,000	10,780	164,780	123,585
	OPEKEPE	493,500	0	29,000	522,500	36,575	559,075	419,306.25
	SCAYLE	465,000	0	37,000	502,000	35,140	537,140	402,855
	AGEA	395,000	0	29,000	424,000	29,680	453,680	340,260
	ENEA	440,000	0	49,320	489,320	34,252.4	523,572.4	392,679.3
	PSNC	468,000	0	37,000	505,000	35,350	540,350	405,262.5
	NPA	300,000	0	29,000	329,000	23,030	352,030	264,022.5

Total project cost is about 4.5 M€

CEF contribution 75%

Enea CEF contribution is about 400K€, 90% for personnel activities

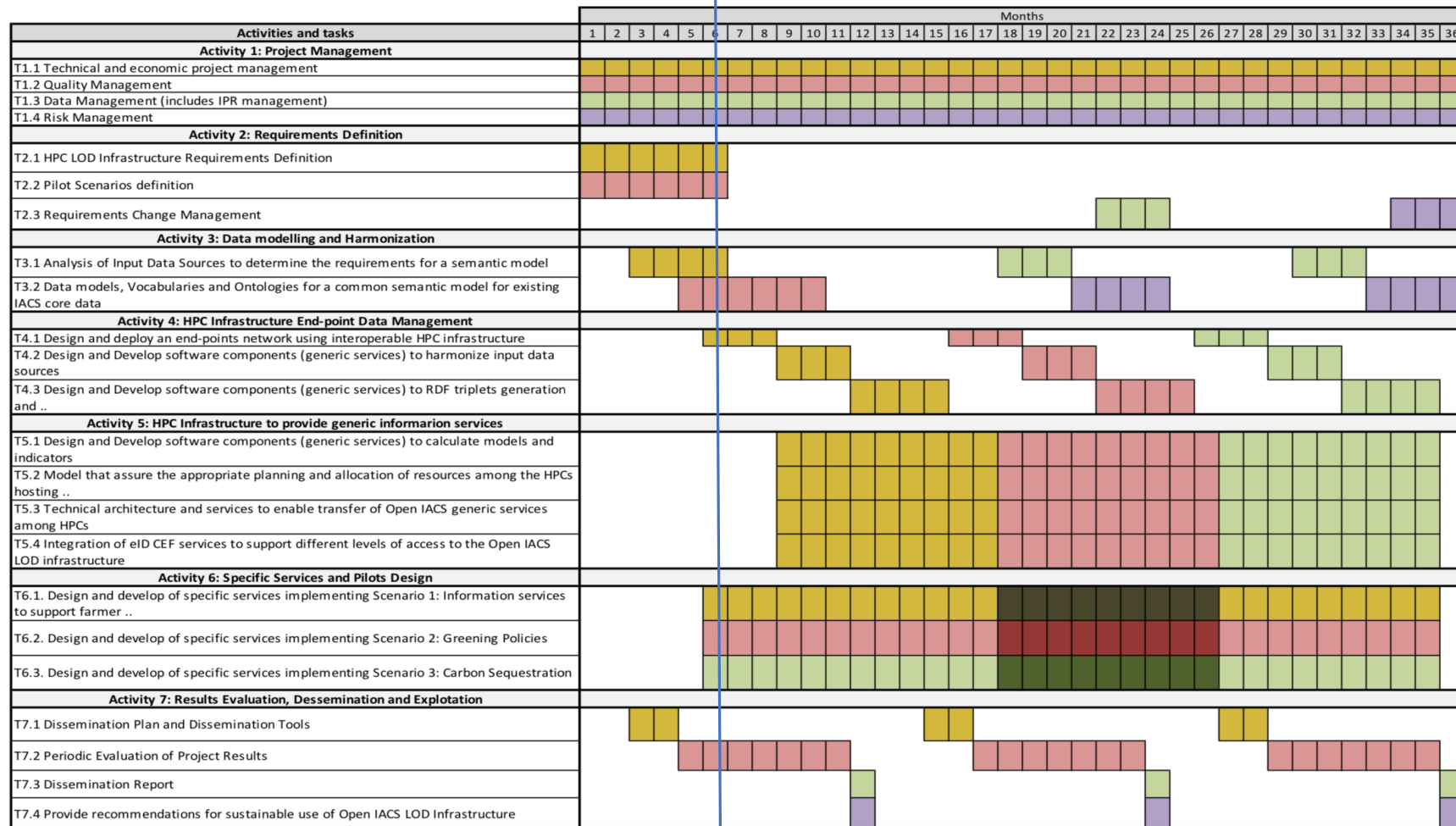
Open IACS activities

Activities/Tasks	Research Centers			Paying Agencies				HPC Providers		
	UC3M	ISPRA	CREA	TRAGSA	AGEA	OPEKEPE	NPA	SCAYLE	ENEA	PSNC
Activity 1: Project Management										
D1.1 Project Financial Planning	L	P	P	P	P	P	P	P	P	P
D1.2 Quality and Data Management Plan	L	P	P	P	P	P	P	P	P	P
D1.3 Risk Management Plan	L	P	P	P	P	P	P	P	P	P
Activity 2: Requirements Identification and Management										
D2.1 HPC LOD Infrastructure Requirements Definition	P	V	V	L/V	V	V	V	P	P	P
D2.2 Pilot Scenarios definition	V	SP	SP	L/SL	SL	SL	SP	V	V	V
Activity 3: Data modelling and harmonization										
D3.1 Analysis of Input Data Sources to determine the requirements for a semantic model	L/P	P	P	P	P	P	P			P
D3.2 Data models, vocabularies and Ontologies for a common semantic model for existing IACS core data	L/P	P	P	P	P	P	P			P
D3.3: Design of specific mechanisms to benchmark and verify inbound data	L/P	P	P	P	P	P	P			P

Open IACS activities

Activity 4: HPC Infrastructure to provide Linked Open Data End-points Management										
D4.1 Design and deployment of an end-points network using interoperable HPC infrastructure	P							P	P	L / P
D4.2 Design and development of software components to harmonize input data sources	P							P	P	L / P
D4.3 Design and development of software components to RDF triplets generation and publication in Open OACS end-points network	P							P	P	L / P
Activity 5: HPC Infrastructure to provide generic information services										
D5.1 Design and Develop software components to calculate models and indicators	V		Ds	Ds	Ds	Ds	Ds	L / Dv	Dv	Dv
D5.2 Model that assure the appropriate planning and allocation of resources among HPCs	V		Ds	Ds	Ds	Ds	Ds	L / Dv	Dv	Dv
D5.3 Technical architecture and services to enable transfer of Open IACS generic services among HPCs	V		Ds	Ds	Ds	Ds	Ds	L / Dv	Dv	Dv
Activity 6: Pilots Design and Implementation										
D6.1 Scenario 1: Information services to support farmer activities and decision making			L / V	V	V	V	V			
D6.2. Scenario 2: Agro-environmental Policies			L / V	V	V	V	V			
D6.3. Scenario 3: Carbon Sequestration			L / V	V	V	V	V			
Activity 7: Evaluation of results, Dissemination and Exploitation										
D7.1 Dissemination Plan and Dissemination Tools	P	P	P	P	P	L / P	P	P	P	P
D7.2 Periodic Evaluation of Project Results	P	P	P	P	P	L / P	P	P	P	P
D7.3 Dissemination Report	P	P	P	P	P	L / P	P	P	P	P

Overall Execution Strategy



The project started on 1/09/2019

Current position in time

Current activities and next actions

- ✓ In this phase of the project the 3 scenarios are being defined (datasets, interfaces...);
- ✓ This activity is led by the paying agencies and we are collaborating in Scenario 1 (AGEA, CREA, ISPRA);
- ✓ Also HPC requirements are being defined;

ENEA (as HPC) is involved massively in Act 4 and Act 5 that will start in a few months.

We should define the team that will contribute in the activities in which we're mainly involved such as:

- Design and development of software components to harmonize input data sources, to RDF triplets generation and publication in Open OACS end-points network, to calculate models and indicators
- Model that assure the appropriate planning and allocation of resources among HPCs
- Technical architecture and services to enable transfer of Open IACS generic services among HPCs