Digital Europe Programme (DIGITAL)

Application Form

Technical Description (Part B)

(Digital Europe Standard)

Version 1.0
01 November 2021

IMPORTANT NOTICE

What is the Application Form?

The Application Form is the template for EU grants applications; it must be submitted via the EU Funding & Tenders Portal before the call deadline.

The Form consists of 2 parts:

- • Part A contains structured administrative information
- • Part B is a narrative technical description of the project.

Part A is generated by the IT system. It is based on the information that you enter into the Portal Submission System screens.

Part B needs to be uploaded as PDF (+ annexes) in the Submission System. The templates to use are available there.

How to prepare and submit it?

The Application Form must be prepared by the consortium and submitted by a representative. Once submitted, you will receive a confirmation.

Character and **page limits**:

- • page limit normally **70** pages (unless otherwise provided in the Call document)

- • supporting documents can be provided as an annex and do not count towards the page limit

- • minimum font size — Arial **10** points

- • page size: A4

- • margins (top, bottom, left and right): at least 15 mm (not including headers & footers).

Please abide by the formatting rules. They are NOT a target! Keep your text as concise as possible. Do not use hyperlinks to show information that is an essential part of your application.

⚠ If you attempt to upload an application that exceeds the specified limit, you will receive an automatic warning asking you to shorten and re-upload your application. For applications that are not shortened, the excess pages will be made invisible and thus disregarded by the evaluators.

⚠ **Please do NOT delete any instructions in the document. The overall page limit has been raised to ensure equal treatment of all applicants.**

TECHNICAL DESCRIPTION (PART B)

COVER PAGE

Part B of the Application Form must be downloaded from the Portal Submission System, completed and then assembled and re-uploaded as PDF in the system.
Note: Please read carefully the conditions set out in the Call document (for open calls: published on the Portal). Pay particular attention to the award criteria; they explain how the application will be evaluated.

PROJECT	
Project name:	Test and Experimentation Facilities for the Agri-Food Domain
Project acronym:	agrifoodTEF
Coordinator contact:	Raffaele Giaffreda, FBK

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PROJECT SUMMARY

Project summary
See Abstract (Application Form Part A).

1. RELEVANCE

1.1 Objectives and activities

Objectives and activities
Describe how the project is aligned with the objectives and activities as described in the Call document.
How does the project address the general objectives and themes and priorities of the call? What is the project's contribution to the overall Digital Europe Programme objectives?

The main objective of the agrifoodTEF project is to boost the further development of European AI, data and robotics solutions in agri-food and stimulates the uptake of AI powered solutions to maximize the impact on the agri-food's competitiveness and its main players by providing a European network of dedicated Testing and Experimenting Facilities. In this way, the agrifoodTEF reaps the digital transformation's total benefit and assuring the move to a Circular Economy for a more sustainable, affordable, efficient, and competitive production under high standards. Therefore, the following specific objectives are pursued:

SO1	To build an agile and sustainable network that provides world class expertise and state of the art infrastructure for the design, implementation and certifications of AI testing and experimenting methodologies in real-world environment and guarantee the long-term sustainability of the network.	Corresponding WP: 1, 2 and 5
Results (measures of success)		**Means of verification**
R1.1 State of the art physical test and demonstration infrastructure		Results will be published in deliverables (D1.1, D1.2, D2.1, D2.2, D2.3).
R1.2 Yearly technology and use case outlook for infrastructure and services update		
R2.1 State of the art digital testing and demonstration infrastructure		
R2.2 Yearly updated technology outlook		
R2.4 Self-sovereign federated agrifoodTEF data space		
R5.2 Viable business models for a long term sustainability strategy		
Objective's pertinence to the themes and priorities of the call		

The agrifoodTEF will build on the integrated expertise and infrastructure of 22 experienced partners. These partners already are acquainted with testing in real world conditions or so-called living labs. The 4 nodes and 4 satellites are selected based on the respective strengths and specialisations to guarantee complementarity and diversity. The physical and digital infrastructure of the 4 nodes and 4 satellites will be analysed, improved, integrated and updated for the design and implementation of AI testing methodologies (WP1 and WP2) With state of the art testing and demonstration infrastructure the agrifoodTEF helps its customers to validate their lab-ready solutions in real-world environment conditions (TRL6 -> TRL8). A long-term sustainability strategy with as corner stone viable business models for the node and satellite will guarantee the sustainably of the agrifoodTEF after the lifetime of the project.

P-KPI: increase in number of available physical resources > 48 and digital resources > 1000

P-KPI: increase in number of available digital resources > 1000

P-KPI: number of sustainable business models for nodes and satellites: **8**

P-KPI: Sustainability plan/strategy : **8**

SO2	Provide services to technology providers in testing, experimenting, certifying and validating AI, data and robotics solutions.	Corresponding WP: 1,2, and 3
Results (measures of success)		Means of verification
R1.3 Yearly updated on site services catalogue		A catalogue of services exists (D1.1, D1.2, D2.5 and D3.4) and is accessible through the agrifoodTEF portal and allows TEF costumers to book on-side physical as well as digital remote services (D5.3).
R1.4 Validated datasets connect to agrifoodTEF data space		
R2.3 Yearly updated services catalogue		
R2.4 Self-sovereign federated agrifoodTEF data space		
R2.5 Toolbox for simulation, visualisation and remotization		
R3.1 Yearly updated services catalogue for safety, (cyber)security and conformity testing		
R3.2 Yearly updated services catalogue for ELSA and LCA services		
R3.3 Framework for setting up regulatory sandboxes		
R4.1 Catalogue of meta standard and ontologies for the agrifoodTEF		
Objective's pertinence to the themes and priorities of the call		

By offering an integrated set of catalogues with as well digital testing services (WP2) as services for physical tests in real life conditions (WP1) and services for security and conformity testing and for testing legal and ethical requirements (WP3) the agrifoodTEF supports technology providers that want to validate state of the art solutions in real world conditions. The services are yearly updated and improved to be able to assess the suitability to the needs of a fast-evolving sector. Our services mainly address the technical aspect and

performance addressed by the user, but if asked by technology providers also services ion on business and legal or ethical requirements are available in the agrifoodTEF catalogue. When necessary, the agrifoodTEF services facilitate compliances with upcoming regulatory frameworks, standards and ELSA(WP3). A frame work for supervised regulatory sandboxes (WP3) is provided to support nodes/satellites that have the need to the setup these sandboxes, in particular through AI regulatory sandboxes and other measures to reduce the regulatory burden in support off SMEs and start-ups.

P KPI: services listed in the catalogue > 70 and services provided > 1000

P-KPI number of supervised regulatory sandboxes set up 1

P KPI number of supported standardisation activities

SO3	To foster trust and acceptance in the user community and to boost the roll-out of European AI, data, and robotics solutions from the lab to the market, guaranteeing maturity of the solutions through high quality validation processes

Corresponding WP: 2, 3 ,4 and 5

Results (measures of success)	Means of verification
R2.4 Self-sovereign federated agrifoodTEF data space	Common quality standards are developed (D4.2) and implemented in the services offered in all nodes and satellites.
R3.1 Yearly updated services catalogue for safety, (cyber)security and conformity testing	
R3.2 Yearly updated services catalogue for ELSA and LCA services	
R4.1 Catalogue of meta-standard and ontologies for the agrifoodTEF	
R4.2 Catalogue of reusable common administrative procedures and protocols	
R4.3 Catalogue of reusable common components/building blocks for services	
R4.4 Repository including best practices, 'learning experiences and knowledge-based information	
R5.2 AgrifoodTEF market and need analysis in the European market	

Objective's pertinence to the themes and priorities of the call

AgrifoodTEF will ensure a wide access to the European and global market by offering fully customized and high-quality safety, (cyber)security and conformity testing. At the same time, compliance with industry standards and certifications, combined with conformance with all regulatory standards and high quality sustainability assessments via LCA services, will boost trust and acceptance in the agrifoodTEF user community.

Trust in the tested AI solution is further increased by also offering service addressing Ethical and social aspects (WP3). AgrifoodTEF will also accelerate the adoption of European AI, data, and robotics solutions and install trust through constant improvement and quality management of its operations and services (WP 4). The use of common building blocks, common definitions and open meta data standards combined with open communication of the advantages and limits of these (AI-based) systems within the whole agrifoodTEF will guarantee efficient workflows, and a high quality of our validation services. AgrifoodTEF will address Identified gaps in meta standards and available ontologies in specific working groups (WP4). Yearly market and needs analysis will deliver the business intelligence to support agrifoodTEF customers to come to mature solutions to roll-out into the European Market. Ultimately the agrifoodTEF quality label that can be obtained will increase the the maturity of the tested solutions.

KPI: Total number of clients > 150; number SMEs > 100; cross border participations > 30

KPI: number of tested solutions

KPI: number of market introductions; AI and robotics solutions brought to market-readiness > 50

SO4	To ensure the trust of technology providers when using AgrifoodTEF services.	Corresponding WP: 4
Results (measures of success)		**Means of verification**
R2.4 Self-sovereign federated agrifoodTEF data space		The common IPR rules (D4.2) are established in the services of all nodes and satellites.
R4.2 Catalogue of reusable common components/building blocks for services including IPR regulation		
R4.5 AgrifoodTEF quality label		
Objective's pertinence to the themes and priorities of the call		
To ensure the trust of technology providers as customers of agrifoodTEF a clear and transparent IPR regulation for the whole agrifoodTEF will be established (WP4). As Intellectual property (IP) helps especially SMEs, the main customers of the agrifoodTEF, in valorising their intangible assets it is also of key importance to build a sustainable agrifoodTEF business model. In this way agrifoodTEF IPR regulation add to the long-term sustainability and to an overall acceleration in the digital transition. AgrifoodTEF takes here the responsibility to help European SMEs protect their inventions and capitalise on their intellectual property.		
KPI: Number TEF customers requesting multiple services over project duration (because they trust the TEF) > 100**;**		
KPI: number of brands, designs, patents filed?		
KPI: agrifoodTEF IPR regulation and strategy		

SO5	To strengthen and expand the agrifoodTEF network to cover the European market	Corresponding WP: 4, 5,6
Results (measures of success)		**Means of verification**
R4.4 Repository including best practices, 'learning experiences and knowledge-based information		agrifoodTEF is connected to central European Initiatives on a technical level (D2.3) (dataspaces, AI-on-Demand platforms) and stakeholder level (D5.1).
R5.1 A vibrant and engaged agrifoodTEF stakeholder network, including strong connections with other different sectorial TEF networks		
R5.2 Market and need analysis in the European market		
R5.3. Viable business models for a sustainable agrifoodTEF		
R5.4 A fully operational agrifoodTEF portal		
R5.5 Catalogue of EDIH training workshops and courses		
Objective's pertinence to the themes and priorities of the call		
AgrifoodTEF will create a vibrant ecosystem that connects and engages a brought network of stakeholders. involving farmers/advisors and their associations, public administration and governmental bodies, research institutes, machinery suppliers and ICT companies. AgrifoodTEF will connect common aspects, share best practises and create synergies with different sectorial TEF networks. AgrifoodTEF will collaborate with the network of European Digital Innovation Hubs (EDIHs) and support them with a set of relevant training to accelerate the distributions of successfully tested innovation to the market. AgrifoodTEF will use its yearly Market and need analysis to understand and cover the European market. AgrifoodTEF will strengthen and expand its network by sharing its repository of best practices, 'learning experiences and knowledge-based information (WP4) mainly via our project portal. The agrifoodTEF will expand beyond the other TEFs and the EDIHs by linking with both other Digital Europe Programme projects and relevant projects funded by Horizon 2020 or Horizon Europe. AgrifoodTEF will work with the European AI-on-demand platform further facilitate technology transfer from research to business AgrifoodTEF will establish strong collaboration with the Common European Agriculture Data Space and explore the possibilities of smart middleware to enable cloud-to-edge federations. AgrifoodTEF will seek connection with European high performance and cloud computing to deliver a major contribution to the adoption of Europe's key digital technologies and acceleration the digital transformation		
KPI: Total number of international events at a TEF location > 5; Participation in workshops with projects funded under the same call > 4		
KPI: number of joint activities with other TEFs and EDIHs		

KPI: number of Market analysis
KPI: number of stakeholders involved in agrifoodTEF activities
KPI: number of provided trainings

SO6	To offer and further develop end-user driven use cases and methodologies to guarantee the involvement of smaller farmers and businesses, with specific focus on affordability of AI solutions.	Corresponding WP: 1,2,3,5 and 6
Results (measures of success)		Means of verification
R1.1 Yearly updated technology and use case outlook		Representatives for small farm use-cases are integrated in the yearly service update.
R4.3 Catalogue of reusable common componenst/building blocks for services		
R 4.4 Repository including best practices, 'learning experiences and knowledge-based information		
R5.1 build the ecosystem around the nodes and satellites and the project as a whole		
R6.2 high level steering of the agrifoodTEF services through the cooperation of the PSG with an Advisory and Strategy Board		
Objective's pertinence to the themes and priorities of the call		
The agrifoodTEF can steer the product development by TEF costumers only to a certain extend as the concrete product development is the responsibility of the TEF customer. However, agrifoodTEF will actively develop and renew its use cases via a yearly technology and use case workshop (WP1) with the TEF customers and farmers. The workshop will take a focus on the needs of smaller farms and businesses, that a defined as a special interest group. Therefore WP5 will link with e European Innovation Partnership for Agriculture Productivity and Sustainability (EIP-AGRI) and with Horizone Europe project that pay special attention to small farmers. The reflection workshops in WP3 will also pay special attention to the needs of smaller farms and businesses to ensure affordability of AI solutions and finally WP 4 will deliver reusable service blocks and collect best practices that target services for affordable solution for smaller farms and businesses		
KPI: Number of strategy board and advisory board meetings > 5; number of workshops on serve update and optimization including farmers > 10		
KPI: number of yearly added use cases		
KPI: number of solutions tested focussed on smaller farms and businesses		

1.2 Contribution to long-term policy objectives, policies and strategies — Synergies

> **Contribution to long-term policy objectives, policies and strategies — Synergies**
>
> *Describe how the project contributes to long-term policy objectives of the call's domain/area and to the relevant policies and strategies, and how it is based on a sound needs analysis in line with the activities at European and national level.*
>
> *What challenge does the project aim to address?*
>
> *The objectives should be specific, measurable, achievable, relevant and time-bound within the duration of the project.*

Long-Term policy objectives:

General policy objective of the Digital Europe program is to reinforce the EU's core Artificial Intelligence (AI) capacities as a crucial driver for the digital transformation of the public and private sectors.

agrifoodTEF will not only be part of the EU-TEF strategy in the call but sees itself also contributing to the following other core strategies.

1. **Cloud-to-edge infrastructure and services**

AI in the agri-food domain does only work considering Edge technology given uncertain communication in the field and needed low power consumption for example on agriculture

machinery and agriculture robots. That's why several nodes and satellites in the agrifoodTEF deal with testing and evaluation services for efficient Edge AI solutions.

2. EU Common data space strategy

The efficient and inexpensive development of AI depends on the availability of high-quality training and benchmarking datasets. This can only be achieved by connecting a multitude of data sources in a sovereign data space. Partners of the agrifoodTEF consortium are involved in the development of the common European agriculture data space and are as well coordinators of the agriculture domains of several GAIA-X hubs in Europe. The high-quality training and benchmarking datasets created in the agrifoodTEF will be interoperable with these data space initiatives in order to maximize the impact of the TEF.

3. AI-on-demand platform

The Digital Europe program envisions an AI-on-demand platform to share trustworthy AI tools and resources across Europe for the public and private sector. The agrifoodTEF is in line with this strategy as it is planned to have a service 'broker offering TEF services'. This is not limited to book test and validation services but also includes access to high quality datasets and pre-trained models. The metadata description and format of these AI assets will be in line with the marketplace of the AI-on-demand platform. Also, big national initiatives like the GAIA-X lighthouse project Agri-Gaia develop an AI ecosystem for the agri-food domain. Agri-Gaia deals with metadata standards as well as a marketplace for AI assets. DFKI (German node) is coordinating Agri-Gaia and will ensure the interoperability of this initiative with the agrifoodTEF.

4. European Excellence in Artificial Intelligence

agrifoodTEF contributes to the European approach to excellence in AI and will be instrumental for creating the enabling conditions for AI's development and uptake in the agri-food sector. Testing and experimentation facilities developed will further foster AI excellence in Europe. AI is a priority for Europe as a whole, and member states, and the corresponding strategic plan identify agriculture as a focus area of application for AI to solve societal challenges: For example, the ELISE strategic research agenda[1], the Villani report on a French and European strategy for meaningful artificial intelligence[2], the Netherlands AI Research Agenda[3], all identify sustainability and food security, as key application priority for AI research in Europe.

5. Trustworthy AI solutions for society

agrifoodTEF further contributes to the European Commission's research and innovation policy on artificial intelligence, data and robotics that focuses on trustworthy AI solutions with a positive impact on society and economy[4]. agrifoodTEF will provide the necessary facilities for making the EU the place where excellence thrives from the lab to the market, ensuring that AI is a force for good in securing food for society.

agrifoodTEF will also demonstrate how the risks of AI can addressed in the agri-food sector and position Europe to play a leading role globally in developing trustworthy, transparent and accessible AI solutions in this sector. To this end, the third-party conformity assessment for AI systems developed in WP3 are essential for placing on the market or putting into service of AI agri-food system, realizing the recent EU Regulation about harmonizing rules on AI systems in Europe[5].

Similar principles are encoded in the Montreal Declaration for Responsible AI[6] and the Toronto Declaration[7], and are picked up by various communities of practice, including the

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[1] European Learning and Intelligent Systems Excellence (ELISE) consortium, Creating a European AI Powerhouse: A Strategic Research Agenda, 2021.

[2] Villani, C. et al. For a meaningful artificial intelligence: Towards a French and European strategy (2018)

[3] NWO, AI Research Agenda for the Netherlands. (2019)

[4] https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/key-enabling-technologies/artificial-intelligence-ai_en

[5] https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1623335154975&uri=CELEX%3A52021PC0206

[6] https://www.montrealdeclaration-responsibleai.com/

Research Data alliance for interest group on agricultural data[8]. agrifoodTEF put such principles in practice by providing the necessary testing and experimentation facilities for responsible AI solution development in agri-food.

Challenges addressed by the agrifoodTEF

The synergies and connections to other strategies described above highlight the challenges that the agrifoodTEF project addresses. agrifoodTEF is not just a network of test and experimentation facilities but needs to be an important building block in a bigger picture so that the TEF's services, datasets and models are interoperable with data spaces, marketplaces, AI platforms in Europe. This potentiates the impact of the TEF. The existing connections of the agrifoodTEF consortium provide the best conditions for this ambitious goal.

1.3 Digital technology supply chain

Digital technology supply chain

Explain to what extent the project would reinforce and secure the digital technology supply chain in the EU. ⚠ This criterion might not be applicable to all topics — for details refer to the Call document.

NA

1.4 Financial obstacles

Financial obstacles

Describe to what extent the project can overcome financial obstacles such as the lack of market finance. ⚠ This criterion might not be applicable to all topics — for details refer to the Call document.

NA

2. IMPLEMENTATION

2.1 Maturity

Maturity

Within the agrifoodTEF project we will work with **22 project partners, 4 nodes and 4 satellites.** Partners are interconnected via a node and satellite structure, ensuring agile and topic-centered collaboration. Partners already have a track record in the fields of AI, agriculture, robotics, and food production. They also have facilities for physical and digital testing for AI applications in place. These tests are done on specific components and/or on different system levels. All partners have extensive experience already in working for a variety of stakeholders, including technology providers, SMEs and start-ups and with public authorities in different kind of EU projects.

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[7] https://www.accessnow.org/the-toronto-declaration-protecting-the-rights-to-equality-and-non-discrimination-in-machine-learning-systems/
[8] https://www.rd-alliance.org/groups/igad-community-practice
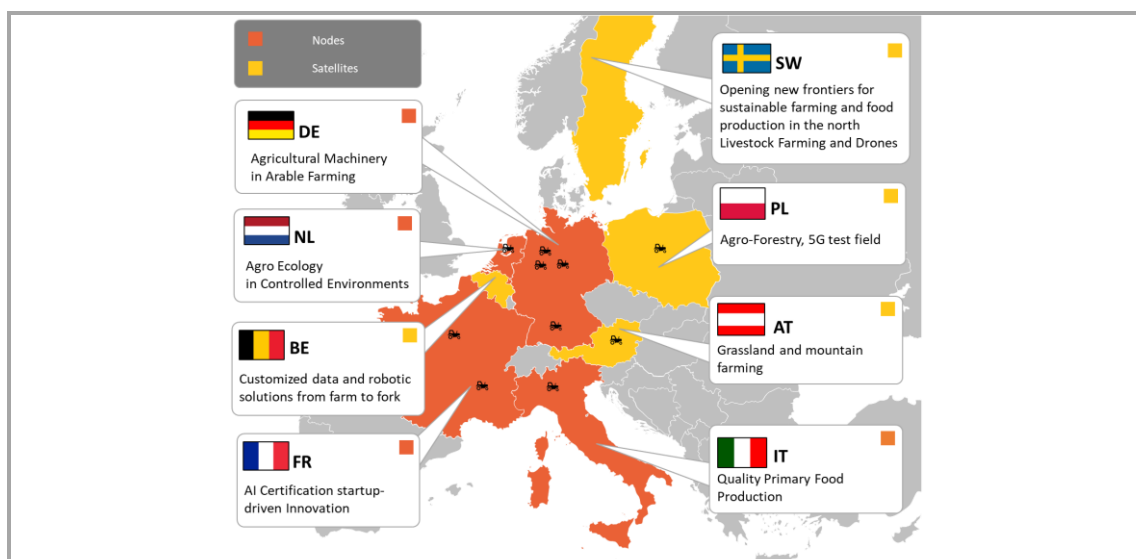
Figure 1: Nodes and Satellites of the agrifoodTEF

The project will **start with this basic situation** where nodes and satellites work mainly in their own market and environment. To valorise previous investments during the course of the project, they will grow through several **iterations** (duly paced by project milestones) in their international customers and impact, their variety and number of services and their role in the international agrifoodTEF ecosystem. The effect is that we can start from day 1 of the project in supporting a variety of stakeholders. With whom we can start testing depends on the co-funding situations in the different nodes and satellites.

At the start of the project the nodes and satellites work with a variety of testing facilities and support on physical, digital, business, legal, ethical, and societal aspects. This consists of availability of controlled environments for testing at research institutes and sometimes the availability of testing on practical farms. In the project we bring in the **concept of living labs.** A living lab is located at a demarcated location in which various parties work together on an innovative solution in a lifelike setting. The "real-life" environment is needed to test innovative solutions that can survive the complexities of real life and daily practice. After all, the success of innovations is not only determined by their technical ingenuity. Organizational and/or social innovations are often decisive. That is why the involvement of end users, regulators, supply companies and civil society organizations in the innovation and testing process is essential. All nodes and satellites will become and learn how to work as a living lab. The advantage we see is that testing environments will then become richer in controlled and practical circumstances and that interaction with stakeholders will become part of the TEF development. Specific attention in the project is paid to the coverage of the EU market. Nodes and satellites cover already 8 countries, but they have the intention as network to cover and/or support the EU market for testing AI solutions for agri-food.

The following table summarizes the main characteristics of the nodes and satellites. A more detailed description can be found in the Annex.

Node-Satellite main topic of interest	Partners	Existing infrastructure	Main Topic of interest
DE-N	2-DFKI 21-GCVV 22-HSOS	Agrotech Valley Gut Arenhorst Agro-Technicum	*Agricultural Machinery in Arable Farming*
IT-N	1-FBK 7-POLIMI 12-FEM 14-UMIL	Alpine region (Trento) Po Valley (Milan) South region (Naples)	*Quality Primary Food Production*

	15-ENG 19-UNINA		
FR-N	6-INRAE 8-INRIA 17-LNE 18-ACTA	DIGIFERMES network TSCF ARPA AgroTechnoPole	*Agri-food facilities for AI conformity assessment and testing*
NL-N	4-WR 16-WU	Farm of the Future Agro Food Robotics WDCC, OnePlanet ELSA lab, NPEC Dairy Campus	*Agro Ecology in Controlled Environments*
BE-S	3-EV ILVO	ILVO labs Agrolink Flanders Flanders Food Living Lab agri-food Technology	*Customized data and robotic solution from farm to fork*
SE-S	13-RISE 20-ASTAZERO	RISE testbed digitalized agriculture (Uppsala) AstaZero testbed	*Opening new frontiers for sustainable farming and food production in the north*
PL-S	9-L-PIT 10-WODR 11-PSNC	L-PIT centers of excellence PSNC HPC infrastructure Kakolewo UAV facility Sielinko test facility Network of 100+ demo real farms	*HPC for sustainability of agri-food and agroforestry sector*
AT-S	5-JR	Wieselburg test facility BLT test center	*AI solutions for grassland and arable farming*

The **argumentation** for choosing these nodes and satellites is in essence pragmatic. We try to cover as much as possible the variety of agricultural sectors, include food processing, try to have a European coverage, including partners with a high impact in the European community and availability of testing facilities, and willingness to invest in building an agrifoodTEF ecosystem for AI applications. Therefore, we expect that both nodes and satellites will have an infrastructure available and that they are capable of providing services. Nodes and satellites are working in an agile manner; thus, we will not have specific pairs of nodes and satellites that will be closely connected. We believe in the development that the agrifoodTEF will be able to cover the European market for testing and experimenting with AI solutions. The nodes will have a budget of 10M € and the satellites will have a budget of 5MEuro.

As a **network we will have critical mass** to offer testing services for a variety of AI applications. The following table summarises on a high level the agricultural sectors and main topics of services (at the start) of the project. These were selected based on existing experience in the market of the partners. They are all attractive for innovators and they fill the gap in the innovation process. Especially the gap between technical services tested in physical environments and the support during the development phase by using digital testing possibilities (simulation, visualisation, annotated data sets) and the social, legal and ethical aspects that hinder quick market uptake of the AI solutions. During the course of time, it can happen that nodes and satellites choose for more specialisation, or generalisation if markets prefer local one-stop-shops also for AI testing.

X = used from start in TEF, o = optional to bring in based on market needs

Sectors and main topics of services	DE-	IT-	FR-	NL-	BE-	SE-	PL-	AT-

	N	N	N	N	S	S	S	S
Arable farming	x	x	x	x	x	x	x	x
Fruit farming		x		o	x		x	
Viticulture		x	x		x			o
Horticulture		o		o		o	x	o
Livestock (Ruminants)			x	x	x	o	o	o
Livestock (Pigs and Poultry)			x	o	x	o	x	
Food processing		x	x	o	x	x	x	
AI competences	x	x	x	x	x	x	x	x
Modelling and LCA		x	x	x	x	X	x	o
Robotics competences	x	x	x	x	x	X	x	x
Legal competences	x					X	o	o
Social, ethics and economic competences		x		x	x		x	
Business development competence	x	x		x	x		x	
Certification competence	x		x			X	x	x
ICT infrastructure competence	x	x		x	x	X	x	

The TEF node or satellite includes physical as well as digital infrastructure and offers services on this basis (Figure 2). The physical infrastructure is specific for the agri-subdomain and AI-subdomain the TEF addresses. It consists of the hardware needed to test and certify AI-based systems and robotics as well as for creation of applicable datasets in each domain. The different nodes and satellites will also make use of a shared digital infrastructure. Each node might still have its own digital infrastructure (data storage, etc.) but the shared infrastructure will ensure interoperability between the nodes and satellites by providing for example standards for AI metadata descriptions or a shared agrifoodTEF-Service catalogue. The standards in agrifoodTEF's backbone Layer will be open sourced so that every testing and certification facility is able to enter the network. Each Node-Satellite will use and develop its own services with a respective pricelist that fits to the specific environment / physical infrastructure and allows a sustainable business model. However, in the project we will align these pricing mechanisms to come with a more European standardized pricing mechanism. The offered services can be based on physical infrastructure but can also be hardware independent services like e.g., legal support of agri-food AI product development. These services can be offered only within one Node of Satellite or across the complete network using the agrifoodTEF service catalogue. Another important aspect of agrifoodTEF for near product development is to ensure trust. The agrifoodTEF will develop a common rulebook considering the latest standards that combines best practice in this area from the existing infrastructures. This will ensure common standards for confidential development, data protection, etc. in the whole network.
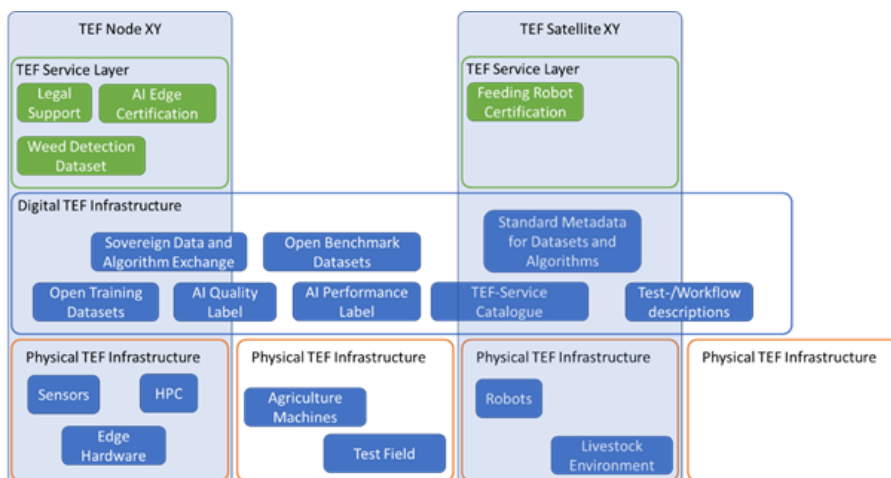
Figure 2: A Node-Satellite has a physical layer with the hardware that exists in this Node-Satellite and that can be used. All Nodes and Satellites are connected via a digital Layer. The business model of Nodes, Satellites and the agrifoodTEF is based on the service layer.

While each node and satellite will have an independent operator with a sustainable business model that is optimized for the specialties and needs of the respective cluster, all nodes and satellites share common guidelines, standards and certain services that can be offered across the different clusters. Standards for dataset, algorithm or benchmark interoperability can, e.g., be based on GAIA-X as the ambassadors of different GAIA-X agri-domains in Europe are part of the proposal.

Services and Pricing:

At the start of the project, we already have a list of services that we can deliver in our nodes and satellites. See Annex II for a detailed list. The following table summarizes the number of services in different categories per node and satellite. These are the initial services that we can offer.

Category of services	number of services	Range of Minimum Invoice	DE-N	IT-N	FR-N	NL-N	BE-S	SE-S	PL-S	AT-S
Physical (WP1)	28	5,000€ – 73,000€	7	9	17	12	21	16	20	7
Digital (WP2)	36	1500€ - 121,000€	11	14	15	18	19	13	22	6
Conformity and ELSA (WP3)	13	12,000€ – 125,000€	4	5	2	5	5	7	4	2
TOTAL	77		22	28	34	35	45	36	46	15

The nodes and satellites also have their initial pricing strategy. Based on an approximation of the initial price per unit of a service and a minimum amount of services the minimum invoice prices per unit of a service are calculated and presented in Annex II. The project strategy will be that yearly iterations will be used to (re)design additional services, to align and standardize them and to make them more international so that they can be applied e.g. to smaller and bigger farm solutions, and use these iterations to align pricing strategies between nodes and satellites.

Pricing differs per node and satellite. To give an indication of the start position per node and satellite the following pricing strategies:

DE-N: Price will be based on calculation using different personnel and material categories.

€	1	2	3	4	5	6
E 13	4074.30	4385.28	4619.20	5073.66	5701.88	5872.94
E11	3553.15	3792.20	4064.48	4478.85	5080.35	5232.76

IT-N: Given the different nature of Partners involved in the Italian Node it was agreed to have a pricing strategy driven by the *person-day* market cost of two types of profile (Senior and Junior) that well reflect an average for the Italian context and for the Partners involved in the node. Such prices have been set at 1500 Euro/day for Senior and at 800 Euro/day for Junior profiles being involved in the provisioning of services. To ensure overheads of sale, setup and wrap-up of services are negligible compared to expected revenues, a lower boundary has been set for minimum cost of services of different nature and typology (it is estimated this will be between 20K and 30K Euros and will add on top of this baseline based on service complexity, needed equipment and duration to be judged and negotiated before achieving a service sale.

FR-N: The price of a service offered by the French node is calculated as its cost (implementation cost, production cost and distribution cost). The implementation cost corresponds to the purchase of equipment for the testing facilities, to the work time linked to their implementation and to the implementation of the infrastructure, etc. The production cost

corresponds to the direct cost associated with the realization of the service (work time needed for realizing the service, equipment entirely consumed during the realization of the service, etc.). The distribution cost corresponds to the costs associated with marketing the service within the framework of the TEF (business development, communication, etc.).

NL-N: Wageningen University and Research work with a standardized pricing mechanism. For 2021 the following table shows the main categories. The categories are based on the salary scale of the people that will work on a specific activity/project/service. To prevent state aid the minimum price will be the Internal cost price. For market conformity we work with an advised market tariff. These prices will be corrected yearly with 2,5 % based on estimated cost price increase.

	Category	I	II	III	IV	V	VI
	Function scale	1-6	7-9	10-11	12	13-14	15-18
Market Tariff	Euro/hour	86	108	137	173	200	260
Internal Cost Price	Euro/hour	66	83	105	133	154	200

When a service will be needed in the agrifoodTEF a price calculation will be made in advance. The price will be based on the estimated personnel need in hours and category. On top of this an estimation will be made for material costs. Think of hectares used or animal days used in an experiment. This calculation will be based on the market tariff as default. For SMEs and start-ups that make use of the agrifoodTEF service we can lower the price and will use the internal cost price, which on average will be a reduction of 24%. WUR work is planned and monitored on projects. So, each service that will be requested and delivered in the agrifoodTEF will be handled as a project.

BE-S:
EV ILVO has an official and transparent pricing system, that is updated following the Belgian index system. The daily rate are based on the wage scale of the persons needed to deliver the service. The total price of a service is then defined by the number of days needed to perform the services and the cost for use of equipment and material.

SE-S: The Swedish satellite offers services at a price calculated as its cost consisting of implementation and production cost. The implementation cost corresponds to the purchase of equipment, licenses and other costs for the testing facilities and to the work time and travels needed to develop a service and implement it. The production cost corresponds to the direct cost associated with the realization of the service (work time needed for realizing the service, travels to be made, equipment entirely consumed during the realization of the service, marketing etc).

PL-S: Lukasiewicz Research Network – Poznan Institute of Technology calculates its services in relation to the costs incurred using the optimal method of determining the margin. The calculation considers several cost categories: staff, infrastructure (depreciation and maintenance), materials, travel cost, other direct costs (external services). Staff costs are calculated on an hourly rate basis (yearly salary/yearly working hours). Overheads and auxiliary activities are accounted in relation to direct costs.

AT-S: The calculation of services at Josephinum Research considers 5 cost categories: staff, infrastructure (depreciation), material, travel, third parties. Staff costs are calculated on an hourly rate basis (yearly salary / yearly working hours). For research internal costs are applied, for business services an additional fee of approx. 50% is applied. Overhead is calculated on a flat rate of 25%. As requests for service demands differ very much, no tariff price lists exist for AI application so far.

2.2 Implementation plan and efficient use of resources

Implementation plan

In the design of the implementation of the project the following principles were used.

The first principle is to use the **metaphor of a shop as a business**. The agrifoodTEF should be open from day 1 of the project and they should be able to deliver testing and experimenting services form the start. We see in general three main types of services. The first type is related to the physical testing and experimental environments. These physical environments will be used directly to support their customers, mainly consisting of SMEs, start-ups and larger companies who sell their products to farmers. The second type is related to the digital testing and experimental environment. To test software solutions and AI-models there is a need for a digital environment to perform these services. Simulation, modelling and visualisation are part of this digital environment. We expect that the digital and physical environments will be closely connected, but that the digital environment open up more international market perspective. The third type is the ethical, legal, social, economic, business, conformity and certification services. The 'shop' should be able to deliver these services also. For these three types we created three different work packages (WP1, WP2, WP3), the pillars of the agrifoodTEF. To provide the shop constantly with improved and new services we created WP4 to function as the back office of the shop. There development, improving and alignment between nodes and satellites on service level takes place. This back office will not be directly visible to the customers, but indirectly in improved services. A shop needs also a front office. In the front office you will work on (improving) your marketing strategy. Having good insights in the developments of the European market for testing and experimentation with AI solutions for agri-food sectors, will be combined with proper business models for the nodes and satellites and a combined effort to connect the markets to the store. This work is concentrated in WP5.

The second principle is **dealing with time and timing**. The project will run for five years. Developments in AI are difficult to predict in advance. Therefore, we will start with an open shop where all the nodes and satellites already can work with and for their customers. They bring in different usecase where SMEs and other companies will be involved. Most of the time this is also related to the co-funding strategies. Then we will make use of a yearly cycle (calendar year) in which we evaluate the results and make the planse for the coming year more concrete. In time we expect that nodes and satellites will align more their services and also will be able to make their market more European oriented. This will result at the end of the project in a coherent network that will be able to sustain itself in the market of testing and experimenting on AI solutions.

The third principle is based on the **use of the physical testing facilities**. Of course we will make use from the start of existing physical facilities available in the nodes and satellites. However, we foresee that during the project they will evolve also and that there will be a natural development not only to involve the more controlled environments on testing farms from universities and research organisations, but that there will also be more practical farms that will become part of the nodes and satellites. Also the need to involve a variety of stakeholders, including farmers, made us decide to make use of the concept of living labs. These activities are in the core of a living lab approach and nodes and satellites will organise themselves as living lab. To exchange experiences between nodes and satellites we chose to have node and satellite coordinators who will become part of the management structure. This is described in WP6.

This results in the following **work package structure**. It is kept quite simple, and it is explained what the rationale is behind this structure.
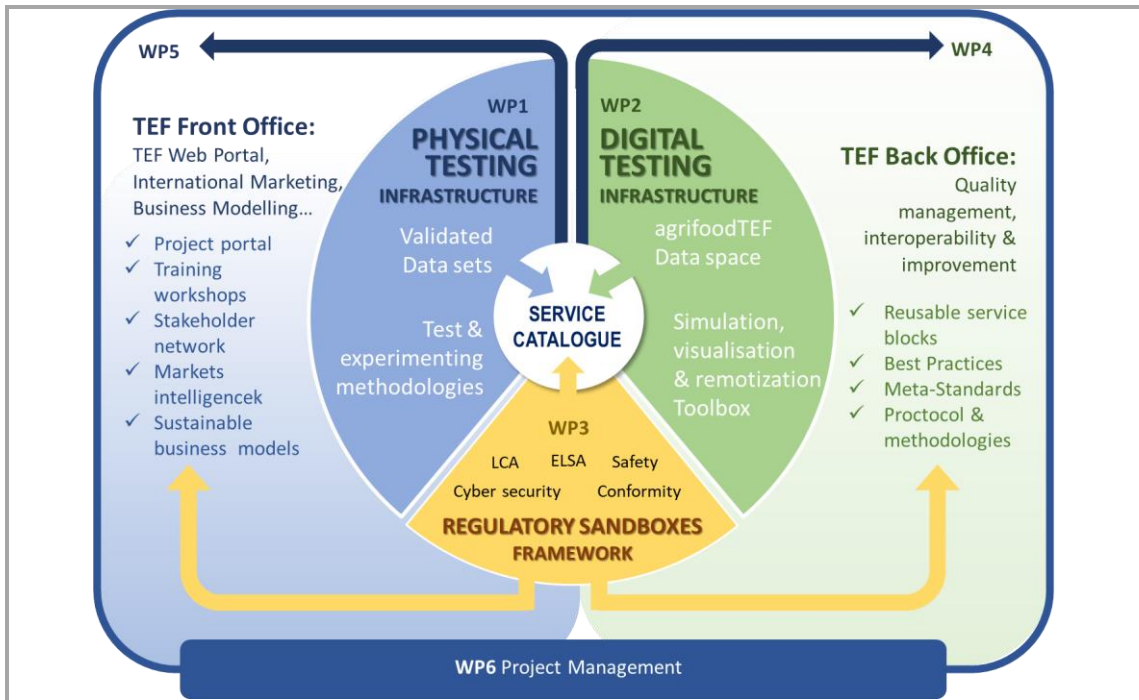
Figure 3: WP structure of the agrifoodTEF project

Within WP1, WP2 and WP3 the following main circular elements come back in the iterations.
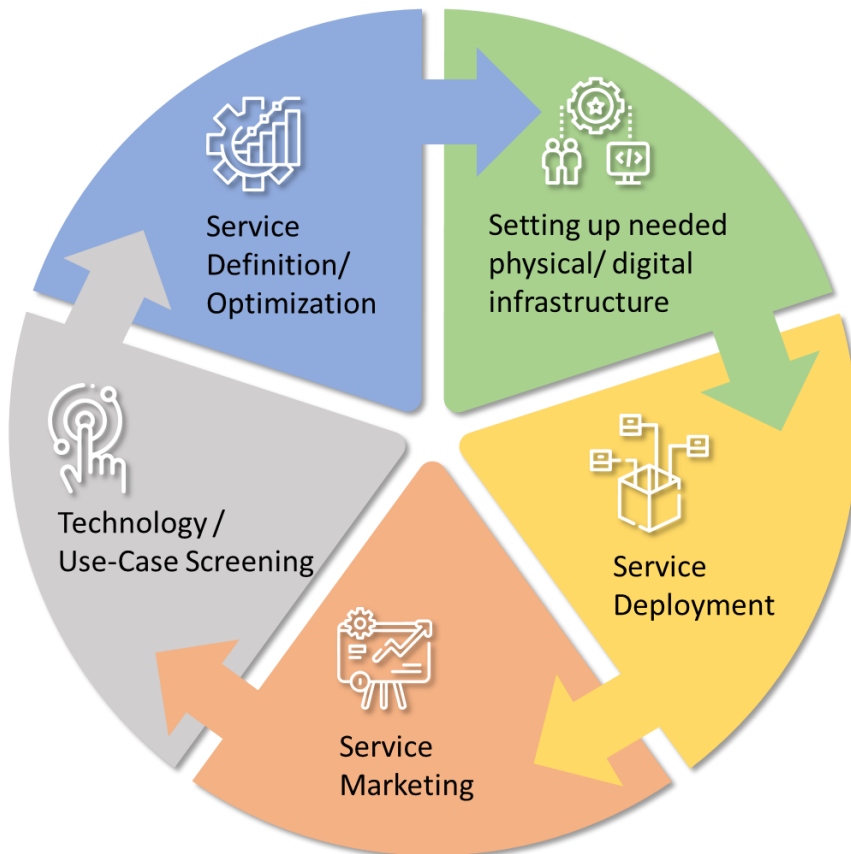
Figure 4: Schematic service development, execution and update cycle in WP1-WP3

In chapter 1 on Relevance six main objectives are introduced for this agrifoodTEF proposal. In the detailed description of the work packages in chaper 4 the connection is made between the specific objectives of the work packages and how they contribute to the overall objectives.

In summary the following table shows that they are covered.

	Results	SO1	SO2	SO3	SO4	SO5	SO6
WP 1	**Physical Testing Infrastructure**						
R1.1	State of the the art physical test and demonstration infrastructure	🟩					
R1.2	yearly updated technology outlook	🟩					
R1.3	yearly updated catalog of on site services		🟩				🟩
R1.4	validated datasets as part of the project data space		🟩				
WP2	**Digital Testing Infrastructure**						
R2.1	State of the the art digital testing and demonstration infrastructure	🟩					
R2.2	yearly updated technology outlook						
R2.3	yearly updated catalog of digitale services		🟩				🟩
R2.4	self-sovereign federated agrifoodTef data space		🟩	🟩	🟩	🟩	
R2.5	Toolbox for for Simulation, visualisation and remotization		🟩	🟩			
WP3	**Conformity assessment and ethical, legal, social aspects**						
R3.1	yearly updated services catalogue for conformity testing an safety and (cyber) security		🟩	🟩			
R3.2	yearly updated services catalogue for ELSA and LCA services		🟩	🟩	🟩		
R3.3	Framework for setting up Regulatory sandboxes						
WP4	**TEF development and quality management**						
R4.1	catalogue of reusable common administrative procedures and protocols			🟩		🟩	
R4.2	catalogue of reusable common componenst/building blocks for services			🟩		🟩	
R4.3	Repository including best practices, 'learning experiences and knowledge-based information						
WP 5	**Ecosystem Development and TEF Visibility**						
R5.1	a vibrant and engaged stakeholder network					🟩	
R5.2	viable business models for long term sustainability					🟩	
R5.3	A fully operational AgrifoodTEf portal					🟩	
R5.4	dissemination and communication						
R5.45	a catalog of 4EDIH training workshops and courses (online and on premises)						
WP 6	**Project Management**						
R6.1	yearly joint work plan based on satellits/ nodes yearly activity plans						

Figure 5:Connection between overall objectives and WP objectives

The budget of the partners is based on the fact whether they are a node or a satellite. Each node has a total budget of 10 M€. Each satllite has a budget of 5 M€. Half of the budgets consist of national cofunds. So each node and satellite should have room to deal with the co-funds and their specific expectation. Therefore most of the budget will be spend on work packages 1, 2 and 3 where the shop is open to test and experiment with the customers of the nodes and satellites. On average WP1 covers 25%, WP2, 25% and WP3 10% of the budget. The remaining budget will be spend on the back office WP4 (15%), front office WP5 (15%) and project management WP6 (10%). These are expected percentagaes. The detailed budget is part of part A. These more generic work packages will need more discussion in using the cofunds, because they might expect direct input in national activities instead of investing in the international activities and have the return on investment on a longer turn.

In the front office work package and on project management level there will build and maintained connections with different projects and activities. The agrifoodTEF will prioritize connections to the digitalisation projects (e.g. OpenDEI, SAH, Demeter, ERANET ICT agri follow ups and EDIHS) and robotic projects and activities (agROBOfood, RI4EU, DTA, ADRA, CEMA, GOFAR, ROS2 network). On AI and ICT project and activities also work package 2 will invest in building and maintaining contact with e.g. GAIA-X and AgriDataSpace.

Project management, quality assurance and monitoring and evaluation strategy

Governance of project

The Consortium will be coordinated by the **Project Coordinator** (PC) from the team of Fondazione Bruno Kessler (FBK), led by Raffaele Giaffreda, having practical experience with various stakeholder communities, and EU projects. The FBK project management office will take care of financial and administrative aspects. The PC is responsible for coordinating wp6 on project management, for the contact with the European Commission and chairman of the Project Steering Group and the Executive Board.

All project partners will be part of the **General Assembly** (GA) with having one member. This board meets once per year or on request.

The work packages will be coordinated by a **Work Package Leader (WPL)**. Within the work packages task leaders take care of the proposed activities within the specified task. The following table gives the names of the WP leaders.

WP1	Lukasz Lowinski	**lukasz.lowinski@pit.lukasiewicz.gov.pl**
WP2	Matteo Matteucci	matteo.matteucci@polimi.it
WP3	Guillaume Avrin	guillaume.avrin@lne.fr
WP4	Heinrich Prankl	heinrich.prankl@josephinum.at
WP5	Sjaak Wolfert	Sjaak.wolfert@wur.nl
WP6	Raffaele Giaffreda	rgiaffreda@fbk.eu

For each node and satellite one person will be the **Node-Satellite Coordinator** (NSC) with the main responsibility to take care of living lab and alignment between partners within the node and satellite. The following persons have the role of NSC.

IT-N	**Raffaele Giaffreda**	**rgiaffreda@fbk.eu**
DE-N	Stefan Stiene	stefan.stiene@dfki.de
FR-N	Guillaume Avrin	guillaume.avrin@lne.fr
NL-N	Kees Lokhorst	kees.lokhorst@wur.nl
BE-S	Jurgen Vangeyte	Jurgen.Vangeyte@ilvo.vlaanderen.be
AT-S	Henrich Prankl	heinrich.prankl@josephinum.at
PL-S	Lukasz Lowinski	lukasz.lowinski@pit.lukasiewicz.gov.pl
SE-S	Jonas Engstrom	jonas.engstrom@ri.se

The **Project Steering Group** (PSG) consists of the Project Coordinator, the Work Package Leaders and the Node-Satellite Coordinators. This group is responsible for the day-by-day operation of the project and they will have regular monthly meetings.

To guarantee the AI aspects that come back in all parts of the project Ioannis Athanasiadis, professor of AI at Wageningen University, will have the role of **AI-officer** with the role to

support and advice the Project Steering Group on maintaining the right ser

An **Advisory Board (AB**) will be installed to provide non-binding advice to the project on AI, social, environmental, technological, legal and practical factors that may influence the management of agrifoodTEF. It will be composed of representatives from industry, agricultural associations, public authorities and research organisations. It will be chaired by one of its members, elected upon the AB's first meeting. The AB will have a European focus and should represent different stakeholders and sectors that will also be active in the living labs.

A **Strategy Board (SB**) will be installed to advise the project on a strategic level. In the SB the national co-funders, the EC, the Node-Satellite-Coordinators (NSC) and a representative from the Advisory Board will be represented. The SB will be chaired by one of its members, to be elected upon their first meeting. Objective of the SB is to ensure a sustainable development of agrifoodTEF. The SB will advise on the yearly plans that will be used to tackle the fast developments in AI and to respond as agrifoodTEF network.

Internal procedures:

Within the project we will use several procedures to guarantee good project management and check of results. For meetings agenda's, minutes and action list will be mandatory. For data management a Data Management Plan will be used, which will be developed in the works package wp6 of the project management. For Deliverables and (scientific) papers a procedure will be used that they all will be reviewed by at least 2 project partners. For the project a central protected repository will be used to create transparency between partners and where all project documentation will be available. Also, the procedures to harvest and present the identified KPIs within the agrifoodTEF project will be set up. These KPIs will be used to monitor if the objectives will be reached. Where possible these internal procedures will be part of the work packages, if not than they will be part of the project management in WP6.

All partners will follow the General Agreement that will be made after the agrifoodTEF project has been selected. There the financial and administrative obligations and monitoring are agreed on. Additional we expect that the NSC will take responsibility in a proper administration of the use of the co-funds, the use of the EU grant and which SMEs and start-ups will be supported in which use cases. A use case is then an agreed testing and experimenting activity between the agrifoodTEF Node-Satellite and their customers. The NSC together check also the cross-border activities to prevent misuse of budgets.

Cost effectiveness and financial management *(n/a for prefixed Lump Sum Grants)*

Not Applicable. Is already described in Chapter 2.2.

Critical risks and risk management strategy

Risk No	Description	Likelihood	Proposed risk-mitigation measures
1	Not being able to sell-deliver enough services (attractiveness and value-add vs. network problems vs. affordability)	Medium	Engage additional stakeholders (able to guarantee future market potential for technology companies validating through TEF)
2	Inefficient use of facilities – limited throughput of service delivery (same facility being busy for too long with one service)	Medium	Replication of facilities with low-cost infrastructure deployment
3	Heavy administrative burden of selling services (will need to deal with managing 100s of small projects)	Low	Ensure a coherent, reusable, and well-structured service delivery framework (to be tackled by / mentioned in WP1, WP2 and WP3

			descriptions)
4	Highly fragmented demand (compared to what would be a cost-effective delivery)	Medium	Well defined service description as part of due diligence quality practice (cfr. WP4 description)
5	Insufficient MS co-funding (excessive co-funding with own resources, funding mechanism not working as expected to support innovation)	Low	Engagement from the beginning of (letters of intent?) innovation-oriented entities and initiatives
6	Unable to secure financial sustainability (need to keep low costs compared to what is to be charged)	Medium	Work towards reputation of TEF, build-up and communicate value, accompany with phased approach with progressively reduced discounts over project duration
7	Representativeness of validated services	Low	Involvement of stakeholders from real-world scenarios
8	Lack of business delivery mindset	Low	Engagement of innovation experts from individual Partners teams
9	Facilities not available due to conflicts (exclusiveness of use) - either physical (location unavailable) or virtual (not enough resources)	Medium	Work with year plans, so that we can take care of dynamics in demand and delivery of services.
10	Other "business as usual" risks... (underperforming Partner, delayed deliveries, postponed start of activities)	Medium	Due diligence (internal advisory board: WP + Node leaders?) project management and monitoring progress
11	IPR protection and facility sharing incentives	Low	TEF collected data as asset, compute-to-data capabilities
12	Nodes and Satellites will focus too much on their home market and forget to collaborate on the European market.	High	WP5 is designed to cooperate in the front office. This is the first line of response. The second is the PSG where also WP leaders and NSC have top align and work together. The third line is the independent role of the advisory boards.
13	Quality of delivered services not being as expected by the customer	Low	To reduce the risk the 'contracting' phase is important. As part of customer satisfaction Nodes and Satellites are encouraged to measure it at end delivery of the service.

2.3 Capacity to carry out the proposed work

Consortium cooperation and division of roles (if applicable)
In Chapter 2.2 the implementation plan and efficient use of resources is already be discussed. Partners work together with in the nodes and satellites and within the work packages. The governance gives insight in the division of different roles and procedures are described how align with each other.

Project teams and staff		
Name and function	**Partner**	**Role/tasks/professional profile and expertise**
Raffaele Giaffreda	FBK	Project Coordinator, Italian Node Coordinator, Chief IoT Engineer, R&I in digital agriculture, Active role in WP2, WP4,

Fabio Antonelli Paola Baruchelli		WP5 and WP6. FBK Digital Agriculture Activities lead. EU collaboratives coordination and support.
Joachim Hertzberg	DFKI	Prof. for plan-based robot control and coordinator of the GAIA-X lighthouse project Agri-Gaia
R. Van De Vijver S. Cool E. Maes Jurgen Vangeyte	EV ILVO	AI expert and manager of the AI4Agrifood platform. He will be mainly involved in WP 2. Coordinator of the agro technology Living Lab and focuses on the development of AI driven robotic solutions. He will mainly be involved in WP 2 Expert in setting up innovative collaborations in digital agri-food between both public and private agri-food chain actors. She will co-lead WP 5 Director of the Agri-food technology department of EV ILVO and will manage the overall responsibilities of EV ILVO in the proposal
Kees Lokhorst Sjaak Wolfert Wijnand Sukkel Remco Suer Simone van der Burg	WR	Specialist in Smart Farming and Robotics, Dutch-Node coordinator and active role in wp4 and wp6. Specialist in digital innovation for sustainable food systems, coordinating role of WP5. Specialist in agro-ecology and coordinator of Farm of the Future, active role in wp1 OnePlanet specialist in data infrastructures, active role in WP2 Specialist in agri-food Ethical Legal and Social Aspects (ELSA), active role in WP3
Heinrich Prankl Peter Riegler-Nurscher Reinhard Streimelweger Elias Eder Johann Prankl Markus Gansberger Franz Handler	JR	Head of innovation and research at Josephinum Research Specialist in computer vision and AI for agriculture Researcher on digitization and law in agriculture Specialist in remote sensing and AI for agriculture Specialist in computer vision, remote sensing and AI for agriculture Agronomist and project manager of "Innovation Farm" in Austria Agronomist and specialist on agricultural processes with focus on autonomization
Bruno Mandonnet Guillaume Lubas Stéphane Ingrand Jean-Pierre Bidanel Sarah Campredon Xavier Vignon Michel Berducat Zhongkai Zhang	INRAE	Coordinator & monitoring projects of the French INRAE TSCF AgroTechnoPôle Platform. Role in WP1, WP2, WP3, WP5. Administrative & partnership INRAE representative Deputy head of Scientific Department "Animal Physiology and Farming Systems". PhD HDR. Ingenior of Research Deputy head of scientific Department "Animal Genetics". Director of Research. PhD HDR Scientific partnership for Department "Animal Physiology and Farming Systems". Scientific partnership for Department "Animal Physiology and Farming Systems". Deputy head director of TSCF research INRAE unit and director of the AgroTechnoPole platform Tenured Research Scientist in TSCF INRAE unit, specialist of artificial intelligence
Matteo Matteucci	POLMI	Prof. on quantitative performance evaluation of AI and robot systems. Leader of WP2; roles in WP1, WP3, WP4.

Giulio Fontana		Expert in methodology, design and implementation of robot benchmarking systems and protocols. Participates to WP1, WP2, WP4.
Philippe Martinet	INRIA	Research Director in ACENTAURI team at INRIA Sophia-Antipolis, working in autonomous robotics (autonomous navigation). INRIA Coordinator and role in WP1 and WP6.
Ezio Malis		Research Director. Leader of ACENTAURI team at INRIA Sophia Antipolis. Role in WP1 and WP6.
Nicolas Chleq		Senior R&D Engineer (male) in the ACENATURI team at INRIA Sophia-Antipolis. Role in WP1.
Lukasz Lowinski	L-PIT	Chief specialist, R&I in digital agriculture, Polish Satellite coordinator and active role in WP1, WP5 and WP6.
Maciej Niemir		Chief specialist, Expert in AI (NLP, ML).
Julia Goscinska-Lowinska		Expert in business ecosystem and ELSA.
Maciej Zacharczuk	WODR	Senior computer scientist.
Marcin Plociennik	PSNC	Senior computer scientist. Expert in IoT.
Michał Błaszczak		Senior computer scientist. Expert in IoT and drone based services.
Raul Palma		Senior computer scientist. Expert in Ontologies.
Juliusz Pukacki		Senior computer scientist. Expert in BigData services
Gerard Frankowski		Senior computer scientist. Expert in Cybersecurity
Andrea Paoli	FEM	Head of Digital Agriculture Unit and specialized in digitisation and automatization of agri-food processes. Local coordination of the TEF facilities and processes.
Roberto Zorer		Specialist in IoT technologies as well as data driven decision support systems for the Agri-Food sector.
Luca Delucchi		Specialist in data driven decision support systems for the Agri-Food sector as well as drone-based services and Geographic Information Systems (GIS)
Jonas Engström	RISE	Agricultural engineer specialized in digitalization of agriculture and autonomous and electric machinery. SE-S coordinator and mainly WP1, 3
Tohid Ardeshiri		AI specialist and responsible for business developments with emphasize on start-ups in AI area. Mainly active in WP2
Anders Thorsén		Safety validation of autonomous systems, including cybersecurity-imposed safety. Involved in WP3 and to some extent in WP1, WP2 & WP4.
Kristina Andersson		Master of Agriculture & Master of Law. Specialist in legalisation regarding digitalization. Involved in all WPs
Davide Facchinetti	UNIMI	Expert in rural development, agricultural machinery and mechanization. Mainly active in WP1 and extended in all other WP.
Domenico Pessina		Prof. with expertise in agricultural mechanics and mechanization with particular skill on machinery safety and ergonomics. Mainly active in WP1 and extended in all other WP.
Vito Morreale	ENG	Doctor with laude in Electronic Engineering. He is head of the Lab for Security, Enterprises, Transport and Infrastructures"
Susanna Bonura		Doctor in Statistics, BDA and AI Specialist. Active in all WPs
Domenico Messina		Computer engineer with professional experience in cloud

		computing, DevOps practices, and design/development of distributed systems. Mainly active in WP2
Ioannis Athanasiadis	WU	Prof. of Data Science and AI. His expertise is in machine learning, big data, and knowledge modelling. Active role in WP2, and WP6
Eldert van Henten		Prof. in agricultural robotics and control. Active role in WP1 and WP2.
Gert Kootstra		Ass. Prof. specialized in agricultural robotics and machine vision, active role in WP1 and WP2.
Riccardo Torres		Prof. of Data Science and Artificial Intelligence. Expert in multimedia analysis and visualisation, machine learning and digital libraries. Active role in WP2 and WP4.
Anna Fensel		Prof. of Data Science and Artificial Intelligence. Her expertise is with semantic web technologies, smart contracts and knowledge graphs. Active role in WP2 and WP3.
Pepa Casado Plana		Ass. Prof. of Law, involved in the ELSA lab. She will work on the conformity assessment in WP3
Guillaume Avrin	LNE	In charge of the "Evaluation of Artificial Intelligence" department at LNE. He is coordinating the French node of the TEF and WP3.
Remi Regnier		Senior expert in image processing and AI evaluation. He is coordinating LEIA 1.0 virtual testing activities on simulators
Anne Kalouguine		Junior expert in Robotics evaluation. She is coordinating LEIA 2.0 mixed testing activities (physical testbench and simulator)
Guillaume Bernard		Senior expert in natural language processing and AI evaluation, He is coordinating LEIA 1.0 testing activities on datasets
Olivier Galibert		Senior expert on AI evaluation, he ensures the scientific coordination of the project.
Agnes Delaborde		Senior expert on AI evaluation. She responsible for the business development of LNE's LEIA testing services, as well as links with standardization committees.
Julieta Contreras	ACTA	Coordinator of the DIGIFERMES network. Role in WP1, WP2, WP3, WP4, WP5
Albino Maggio	UNINA	Prof. of Agronomy and Crop Science with expertise in crop physiology and stress adaptation. Focus on WP1, WP4, WP5.
Leopoldo Angrisani		Prof. of Electrical and Electronic Measurements with expertise in Artificial Intelligence-Based Early Prediction Techniques in Agri-Tech Domain. Focus on WP2, WP4, WP5.
Katarina Boustedt	Asta Zero	Expert in electronics production, autonomous vehicle testing and cybersecurity. Will work in WP2.
Greger Rognelund		Expert in verification for active safety systems in vehicles, with experience in software development from automotive and space industry. Focuses on WP1 and WP2.
Dirk Detlefsen	GCVV	Agricultural economist and expert in consulting political commissions and agricultural enterprises.
Henning Müller		Chairman of the digitalisation working group at bitkom e.V. (Berlin) and deputy chairman of Agrotech Valley Forum e.V. (Osnabrück).

| Stefan Stiene | HSOS | Prof. for intelligent agriculture systems with a focus on AI and robotics. German Node Coordinator. |
| Julius Schoening | | Prof. for image processing and human-machine-interaction with a focus on agriculture applications. |

Outside resources (subcontracting, seconded staff, etc)

In the budget of Part A outside resources is identified. More in general we allocated budget for subcontracting, but in this stage of project proposal and the foreseen dynamics subcontracting will be discussed and decided in the PSG. As an example, Josephinum Research and RISE will include further partners in Austria (e. g. affiliated organisations of JR) and Sweden to cover the whole range of services needed for the market. There are further research and testing institutes available, providing competences especially in viticulture, horticulture and animal husbandry. Thus, budget is reserved for subcontracting. These institutes will be added as beneficiaries after eventual approval, commissioned via subcontracting or it will be checked during the project whether specific activities originally allocated to sub-contracting, can be done by the existing project partners.

Consortium management and decision-making risk(if applicable)

The consortium agreement, the described governance and procedures are in line with what is expected to run a European project. Risks are described and additional mitigation plans can be where needed. So, there are no additional consortium management and decision-making risks.

3. IMPACT

3.1 Expected outcomes and deliverables — Dissemination and communication

Expected outcomes and deliverables

Define and explain the extent to which the project will achieve the expected impacts listed in Call document.

The main objective of the agrifoodTEF project is to boost and nurture the use of explainable AI, innovation capacity and competitiveness improvement in the European agri-food sector by creating and fostering a stronger European agri-Food-Tech and digital agri-food ecosystem.

To this aim, the proposed project strives to further the development of European AI, data and robotics solutions in agri-food and to boost the uptake of AI powered solutions to maximize the impact on the agri-food's competitiveness and its main players. The Expected Outcomes from the Call are listed here followed by the explanation on how agrifoodTEF will address them.

Expected outcome for the agri-food innovation ecosystem (ES.EO):	
ES.EO1:	Innovation capacity and competitiveness improvement in the European Agri-Food sector
ES.EO2:	Stronger European agri-Food-Tech and digital agri-food ecosystem
ES.EO3:	Network of nodes, and were applicable satellites, following the principle of one-stop-facilities for bringing AI-based technologies for Agri-Food from Lab to Fab

Expected outcome in terms of AI innovation (AI.EO):	
AI.EO1:	Impactful validation in real and realistic conditions of innovative AI and robotics technologies in agri-food applications,
AI.EO2:	Boosting the competitiveness of the European industry, including SMEs in AI-based technologies, including robotics, a technology of high strategic relevance;
AI.EO3:	Contributing to boost European IP and products based on European

	technology;
AI.EO4:	World-class experimentation facilities in Europe, offering comprehensive support combining the necessary expertise, meeting the needs of European innovators, including the highest level of trust and security for the technology providers using the TEF services, and the highest quality of the testing and validation to guarantee trust and security in the tested solutions, key for their broad diffusion
AI.EO5:	Contributing to European technology sovereignty and open strategic autonomy in AI, and AI-enabled solutions;

The expected outcomes of the project can be listed as "direct outcomes", i.e., those related to the proposed project plan and the provision of the TEF services, and "indirect outcomes", i.e., the consequences of project plan on the European agri-food sector and broader European AI technological sector.

Specific direct outcomes of the proposal are as follows:

- To build an agile network composed of 4 nodes and 4 satellites that provides world class expertise and state of the art infrastructure for the design and implementation of AI testing and experimenting methodologies in real-world agri-food environments and to guarantee the long-term sustainability of the network. AgrifoodTEF foundations are solidly rooted in existing experimental farms and facilities for AI and Robotics in Agriculture, already operational in various **regions highly representative of European Agri-Food production** (from Western regions of France to those of Poland in the East, from Southern crops of Italy to Northern ones in Sweden, all enriched by controlled environment agroecology farms in The Netherlands, arable farms in Germany, Belgium and Austria). → ES.EO1, ES.EO2, AI.EO4

- To support technology providers in validating AI and AI based data & robotics solutions by assessing technical, digital, ethical, legal and societal aspects and performance expected by the users, by facilitating compliance with upcoming regulatory frameworks, by supporting standardisation activities and by providing supervised regulatory sandboxes in order to guarantee the suitability of the solutions to meet the needs of the agri-food sector minimizing the time to market. Nodes and Satellites facilities have been clustered to **build scale** and further enhance EU role in guaranteeing world food security with testing and validation facilities that will engage all relevant agricultural stakeholders with the **best experts in the AI and Robotics technology domains**. Furthermore, Partners' facilities have been strategically chosen within national regional contexts rich of stakeholders that provide TEF customers the one-stop-facilities that help them find nearby the right humus of adopters that will grow the business associated with their TEF validated solution. → ES.EO3, AI.EO4

- To foster **trust and acceptance in the user community** and to boost the roll-out of European AI, data and robotics solutions from the lab to the market, guaranteeing maturity of the solutions through high quality validation and experimentation processes. This is guaranteed by the indirect engagement of farmers when in many cases their fields are being integrated as part of the validation facilities to ensure a certain degree of flexibility in **scaling-up the TEF ability to deliver testing services**. → ES.EO2, ES.EO3, AI.EO1

- To ensure the trust of technology providers using agrifoodTEF services, through the adoption of suitable IPR protection and ownership policies. IPR protection will be mostly focusing on data and knowledge gathered during the testing services being delivered. While aiming to disclose results as widely as possible for the benefit of the EU rural communities, we also envisage the possibility to sign Non-Disclosure Agreements (NDAs) at node/satellite level during the delivery of a service if need be. From the data-asset point of view the facilities will leverage Consortium competences on GAIA-X technologies for **self-sovereign data management** in accordance with EU Data Governance Act directives. Furthermore, related traceability on data use and compute-to-data paradigms will add further protection to the owners of such an important IPR asset which is data gathered in the various validation experiments. →

AI.EO3, AI.EO4, ES.EO2

- To offer and further develop end-user driven use cases and methodologies to guarantee the **involvement of smaller Farmers and businesses**, with specific focus on affordability of AI solutions. The **economic aspect of tested solutions** will be a component which we plan to assess with particular attention in the yearly reviews that will further analyse the number and type of services that were sold at TEF level. Direct feedback from the farmers or agronomic experts will be systematically gathered on every AI or Robotic technology being validated. à ES.EO1, ES.EO2, AI.EO1

As a consequence, agriculture machine manufactures as well as food processing equipment industries – as direct TEF customers – will access TEF services as a one-stop support infrastructure allowing them to build upon a pre-competitive building blocks and to produce more efficient machines and processes.

Furthermore, farmers and food processing companies, as final users of the technologies validated by the TEF, will benefit from the AI-based products that TEFs have helped make available in the market, triggering a beneficial return on the agri-food sector as a whole.

In light of this, the indirect outcomes of the project are as follows:

- To validate and experiment in real conditions next-generation AI-powered agricultural robotics and AI-based decision-making tools and enabling large-scale data collections; in particular, the objective of targeting data spaces compliant with GAIA-X principles and fostering sovereign data-sharing, will provide AI developers larger and larger datasets that are much needed to improve AI and Robotics solutions currently on the market and more easily adapt them to the many different contexts in which they can be successfully used. → AI.EO1, AI.EO2, AI.EO5

- To accelerate the adoption of AI-based solutions in agriculture; working in close relationship with farmers is one of the main assets this Consortium brings. Each node and satellite brings together the right mix of experts from both, AI and Robotics side, as well as from the Agronomic one, which will join forces to validate technology solutions in real-world scenarios, often involving the end-users (i. e. farmers) that need to be convinced about the value tested innovation brings them. → AI.EO1, AI.EO2, AI.EO5

- To increase the awareness of new digital farming technologies; in the agriculture world, word of mouth on successful products is recognised as the major market strategy that will help achieve both, awareness as well as adoption if indeed results show consistent and concrete gains to be achieved (financial ones, based on better yields and / or better use of resources); yearly reviews of success stories will provide agrifoodTEF the right material to foster the achievement of such an important outcome. → ES.EO1, ES.EO2, AI.EO4

- To enable the design and commercialization of precision farming tools dedicated to the agroecological transition, both for crops and animals sectors; in this respect the project aims to have continuous interactions with stakeholders from various Member States which, amongst other roles, will also advise on Common Agricultural Policy (CAP) instruments that can also be used by the farmers to subsidise the adoption of innovative solutions. This is an important filter that will also help in the procurement of TEF customers whose solutions being validated can also address important targets related to agroecological transition. → ES.EO1, ES.EO2, AI.EO4

- To decrease the use of chemical inputs (pesticides and antimicrobial) while increasing the efficiency of resources (especially non-renewable) and favouring natural (ecological) processes; all TEF nodes and satellites will deliver their services in highly representative regions for top EU agri-food production. This specific feature of the Consortium and its awareness of such sustainability priorities and the possibilities driven by the CAP will also help agrifoodTEF select amongst its potential target customers those that have strong solutions for these problems. → ES.EO1, AI.EO4

- To increase the agri-food sector resilience allowing mitigation of the environmental impact of agricultural activity and helping to optimise the use of natural resources

similarly to the previous point, this will be also ensured through a careful selection of solutions to validate which can address such problems. → ES.EO1, AI.EO4

Also because of these motivations, we firmly believe that the outcomes of the agrifoodTEF project will produce a key return on the ability of EU companies in the agri-food-tech sector to respond to the general policy objective of the Digital Europe program, namely to reinforce the EU's core AI capacities as a crucial driver for the digital transformation of the public and private sectors contributing to EU technology sovereignty and open strategic autonomy in AI and AI-enabled solutions.

TEF Financial Sustainability Plan

AgrifoodTEF nodes and satellite Partners are fully committed towards ensuring the network will sustain itself after the end of the project. The Financial Sustainability Plan hinges on two main important aspects one associated with the selling of services, the other, more forward-looking for agri-food domain, related to the progressive enrichment of nodes and satellite data assets as test and validation services will be delivered within the various facilities.

The first aspect simply relates to the implementation of good business planning practices: progress towards service sales objectives will be assessed and detailed analysis will be executed to find out which services will have generated the highest interest and why. Further assessment will look into the "business viability" of these (i.e. what would customers be ready to pay and what would be the costs to see how good margins are to be made, if these will require high numbers of individual sales or if there is enough opportunities from securing fewer sales, but engaging more resources for longer time in bigger and more complex service delivery project).

The second and most ambitious, yet challenging aspect that will be pursued to make agrifoodTEF nodes and satellites financially sustainable, relates to the bet that an increasingly flourishing data-economy will make its way also in the agri-food domain. On this front, many Partners are already members of the European GAIA-X for Agri initiative, having amongst its main objectives the one of supporting European data technology sovereignty.

One of the main hurdles hindering adoption and limiting potential breakthroughs of AI-based and Robotics technologies in agriculture is the fact that current datasets produced in field experimentations are often private, small and siloed. This is exactly the opposite of what good AI needs: large and representative datasets to be well trained with. AgrifoodTEF has the strength of GAIA-X principles to leverage data sovereignty technologies will guarantee that this TEF can fulfil something so far unaddressed, which is breaking the mentioned silos and getting data owners to share their data with the promise of monetisation (i.e. compute-to-data paradigm and traceability solutions for who has done what for how long with data). Planned activities will leverage on Partners' competences and will aim to build a GAIA-X compliant data space, sharing similar data space management principles across all TEF nodes and satellites. Furthermore, through many of its Partners interest and existing involvement in related initiatives, the project plans to establish strong links the Agricultural Data Spaces projects Digital Europe plans to fund. It is expected that these activities and data-economy oriented strategy for the TEF will contribute additional dataset monetization business opportunities to the Financial Sustainability Plan.

Dissemination and communication of the project and its results

If relevant, describe the communication and dissemination activities, activities (target groups, main messages, tools, and channels) which are planned in order to promote the activities/results and maximise the impact. The aim is to inform and reach out to society and show the activities performed, and the use and the benefits the project will have for citizens

Clarify how you will reach the target groups, relevant stakeholders, policymakers and the general public and explain the choice of the dissemination channels.

Describe how the visibility of EU funding will be ensured.

⚠ *In case your proposal is selected for funding, you will have to provide a more detailed plan for these activities (dissemination and communication plan), within 6 months after grant signature. This plan will have to be periodically updated; in line with the project progress.*

To maximize visibility and impact, agrifoodTEF will develop and carry out dissemination actions to inform and involve targeted actors and execute strategically planned communication activities to engage, consult and inform key stakeholders and the wider public. The initial strategy is presented below, while a coherent Dissemination and Communication plan (DCP) will be delivered early in the project (D5.1) and will be revised and updated regularly (M12, M18) ensuring its alignment with the project's objectives.

The main objective of the agrifoodTEF dissemination strategy is to ensure that the project's outcomes, knowledge, and opportunities are effectively diffused and made accessible to the appropriate target groups and that we have regular interactions with stakeholders taking place though the living labs. A multi-actor, multi-channel approach will be employed to reach and engage different stakeholders and target groups, with adjusted information for needs and interests, addressing especially the future costumers regarding the service list of the TEF network. In this sense, use will be made of the nodes and satellites that will be organized as living labs. Per definition they interact with different stakeholders. Further, synergies for knowledge and innovation transfer with European-funded projects (i.e. other proposals funded under the DIGITAL-2022-CLOU-AI-02-TEF) will be built as well as the integration of the European Digital Innovation Hubs (Task 5.3) and the use of the AI-on-Demand platform.

Target groups and key messages

Target Groups	Key Messages
'End-Users' in the agri-food business ecosystem (Farmers, advisors and their associations)	Getting Feedback from this target group on the practical relevance of specific and validated AI and robotics solutions as well as raising awareness for the potential of AI & Robotics technologies (living lab).
Technology Providers and AI, robotics & Data intermediaries (e. g. data aggregators, agri-food software and robotic companies)	The TEF provides a unique infrastructure for this target group to test, experiment, evaluate and certify their products.
Solution manufactures in the agri-food domain (e. g. machinery suppliers, FMIS, Food processing, logistics)	The TEF provides a unique infrastructure for this target group to integrate solutions of technology providers in their products and test, experiment and evaluate them.
Society (e.g., citizens, consumers and their associations)	Raise awareness for the potential of AI and robotics for a sustainable and efficient agri-food domain and show value of validation and certification.
Public bodies (public administration, legislators and governmental bodies)	The TEF is the ideal place for this target group to develop approval workflows for new AI & robotics solutions (especially long-term autonomous machines).
Certification bodies	The TEF provides a unique infrastructure for certification bodies to provide certification services for their customers.
Academia and scientific communities and professionals	The TEF is the key infrastructure between basic research of this target group and actual products based on this research. This target group should also integrate the TEF in their research and development in order to reduce the gap between research and products.
EU commission, (E)DIH, DTA, GAIA-X, AI-on-Demand	The TEF will be part of European strategy to support the digital strategy. The TEF will communicate with all these different groups, to increase awareness of the position and added value of agrifoodTEF and the value for the other instruments.

Dissemination and Communication strategies and measures to address these target groups

Project events	**Audience:** Farmers, advisors and their associations, Technology Providers and Data intermediaries, Agribusiness, Policy makers, Academia

It is planned to have "Open TEF days" at each node and satellite to present the TEF not only to the local existing customer network but to the whole European TEF network. Also important multipliers like CEMA and farmer associations will be invited to these events. Beside these open days also dedicated discussions and meetings with the living lab partners will organised. It is expected that during the project these meetings become more international oriented.

KPIs: At least one international event at each TEF location, back-to-back with the consortium meeting.

Connections and Synergies	Audience: Other relevant EU initiatives

agrifoodTEF will capitalise the already established cooperation of the consortium partners with ongoing prominent initiatives (EDIHs, GAIA-X, RI4EU, agROBOfood) in order to create synergies and disseminate the project results. Moreover, it is planned to liaise with the projects funded under the same **DIGITAL-2022-CLOUD-AI-02-TEF** call fostering community building and aligning project outcomes and strategies.

KPIs: KPIs: Participation in **>2** workshops with projects funded under the same call

agrifoodTEF Portal	Audience: Technology providers, solution manufactures

The agrifoodTEF creates a portal (WP5) that includes a service broker that contains all the service offers from the various TEF locations.

KPIs: Every TEF node/satellite offers their services using the portal

Strategy and advisory board	Audience: all target groups

In WP6 a strategy and advisory board are established. These boards consist of important multipliers of all target groups.

KPIs: At least one board meeting per year.

AgrifoodTEF social media	Audience: TEF customers as well as general public

Build and actively maintain the project's online presence in several social media channels, using LinkedIn when interacting with scientific and technological communities and Facebook, Instagram, Twitter and YouTube for general public.

KPIs: >4 actively maintained social media channels (Twitter, LinkedIn, Instagram, Facebook, YouTube)

Branding and Communication material	Audience: All target groups

Development of the project's branding and communication material (banner, roll-ups, leaflet and newsletter) to be utilised in offline or online events (available as e-documents and printed for the physical events).

KPIs: Design of the visual identity; Distributed printed promotional materials > 2.000

3.2 Competitiveness and benefits for society

Competitiveness and benefits for the society

Describe the extent to which the project will strengthen competitiveness and bring important benefits for society

The agri-food sector currently faces major pressures being required to constantly increase its productivity while having to cope with the dramatic effects of climate changes and with the urgent request to absorb the rising cost of production due to the retail and food service sectors being so competitive. As a result, high productivity of agriculture is achieved through modern technology, the intensive cultivation of larger units of land and the high use of fertilizers, antibiotics and plant protection products, with extremely negative effects on society: loss of biodiversity in flora and fauna; increased environmental pollution due to pollutant input into soil, water and air; production of less healthy food, among others.

In this context, data-driven and decision-enabled AI solutions are extremely promising in enabling the agricultural sector to remedy this situation: through practical adaptability to site- and situation-specific needs in the field, livestock farms and innovative cultivation methods, e.g. with new agricultural robotics, new diversity, lower chemical and antibiotic inputs, small-scale diversity measures and new forms of mechanical/biological pest/weed/animals control, thus enabling a more efficient and sustainable agriculture.

The agrifoodTEF will be an enabler to pervade the Agri-Food domain with more effective and precise AI based products tested and qualified in real operational environment and qualified against existing norms and regulations. Through its services, the TEF will: (i) boost the competitiveness of the technology providers (TEF users) and the agri-food sector players (end-users); (ii) bring major long-term benefits to the wider society.

In this respect, (information)technology providers – both AI and robotics agri-startups and agriculture machine manufacturers – will bring to the market better AI-based solutions with improved precision and effectiveness that will be the base for a new generation of data-driven Decision Support Systems and agri-food robots.

The agri-food sector players, having the possibility to access and utilize these new solutions, will be able to improve their productivity with smarter solutions, producing more sustainable, secure and healthy food with a shorter return on investment.

Finally, this concatenation of beneficial effects, will also have an extremely positive effect on the society. Firstly, consumers will be offered with better and healthier products. Secondly, transparency, security and affordability of food will be preserved, while boosting the EU competitiveness enabling competitive and commercially viable food businesses that can significantly contribute to the wider economy. Lastly, the advances in productivity afforded by AI and agri-food robotics technologies will lead to farmers' and food manufacturing factories' ability to produce a more varied and flexible product portfolio and/or higher volumes in a reduced period of time; there will also be far less wastage as robotic systems work more accurately and consistently than current practices. Therefore, the energy consumption and the inputs per batch will be reduced with a positive return on climate and pollution.

3.3 Environmental sustainability and contribution to European Green Deal goals

Environmental sustainability and contribution to European Green Deal goals

Describe the extent to which the project will contribute to environmental sustainability and in particular to European Green Deal goals

⚠️*This might not be applicable to all topics — for details refer to the Call document.*

The agrifoodTEF contributes directly to three European Green Deal[9] strategies: Farm to Fork, Biodiversity and Sustainable Industry but it could also be argued that the Clean Energy and Eliminating Pollution objectives will benefit from AI/Robotic based products in the agri-food domain enabled by the TEF.

Farm to Fork: The Farm to Fork strategy is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally-friendly. In detail the strategy aims to accelerate our transition to a sustainable food system that should[10]:

- have a neutral or positive environmental impact
- help to mitigate climate change and adapt to its impacts
- reverse the loss of biodiversity
- ensure food security, nutrition and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food
- preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector and promoting fair trade.

The agrifoodTEF will accelerate the market entry of AI based products and services in the agri-food domain in Europe. AI has the potential to serve as enabler in all areas of the agri-food domain for sustainable and healthy food production. The importance and potential of AI for agriculture in the context of the green deal is also emphasised in this study by Gailhofer et al. for the European Parliament showing example applications in agriculture that allow for more efficient use of water, pesticides and fertilisers and thus could mitigate environmental impacts [11].

Biodiversity: The first Use-Cases supported by the different agrifoodTEF nodes/satellites are chosen in a way that they are not only supporting AI development to increase the efficiency of agricultural processes, but also to support the sustainable ecological design of these processes. This includes, for example, the provision of benchmark data sets and validation environments for machines/robots for selective weed control. This is not only about weed detection and the reduction of pesticides but rather about considering the plant species and their relationships to each other and to the soil in an expert system. However, this requires the reliable identification of all involved plant species and their characteristics.

Another idea to improve biodiversity in agriculture processes are agroforestry systems. However, these systems require efficient but also small machines. Agriculture robots that are able to perceive their surrounding in order to navigate and work between the trees are a promising option of efficient and sustainable agroforestry processes. The TEF satellite in Poland has ideal prerequisites for companies to develop and test these kinds of systems.

Sustainable Industry:

The TEF support sustainable industry in the way that they will help companies to provide farmers with AI-based products that allow them to optimise the circular economy on their farms. But also, agricultural processes with long-term autonomous agricultural robots based on sustainable energy production or energy sources such as solar, hydrogen or wind power will contribute to sustainable agriculture. The German node e.g., will focus on supporting the development of long-term autonomous systems.

Low-emission mobility:

The Nodes/Satellites will provide simulation environments to test and optimise planning systems for logistical processes. These can be logistical processes in different agricultural steps but also transport processes between primary production and food processing production. The German and Italian nodes will e.g., offer such digital services.

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[9] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en
[10] https://ec.europa.eu/food/horizontal-topics/farm-fork-strategy_en
[11] Gailhofer et al.: The role of Artificial Intelligence in the European Green Deal,
https://www.europarl.europa.eu/RegData/etudes/STUD/2021/662906/IPOL_STU(2021)662906_EN.pdf

4. WORK PLAN, WORK PACKAGES, TIMING AND SUBCONTRACTING

4.1 Work plan

Work plan

Provide a brief description of the overall structure of the work plan (list of work packages or graphical presentation (Pert chart or similar)).
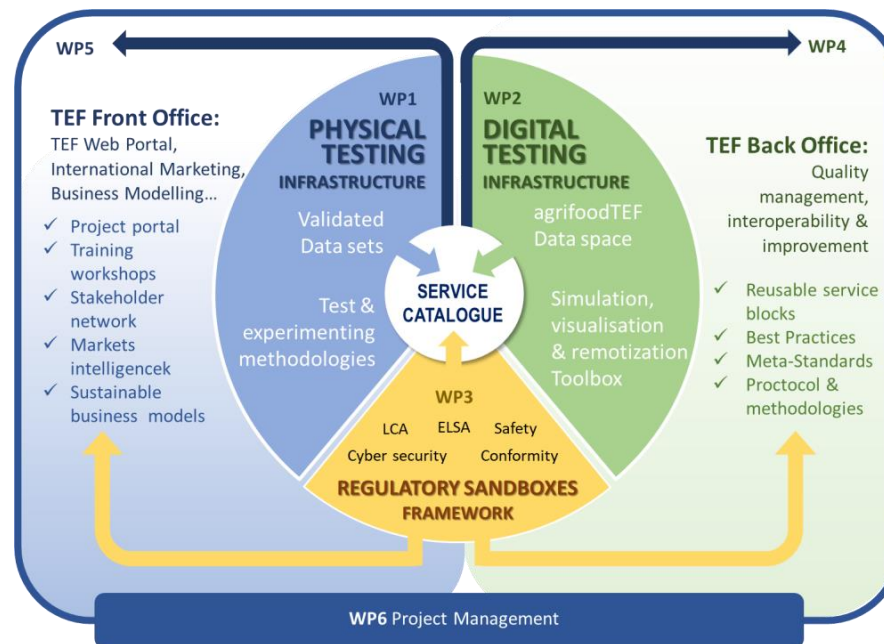
Figure 6: WP structure of the agrifoodTEF project

The agrifoodTEF project is organized in six work packages. The rationale behind the work packages is described in chapter 2 in the Implementation. More detailed descriptions of all the work packages can be seen in chapter 4.2.

4.2 Work packages and activities

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WORK PACKAGES

This section concerns a detailed description of the project activities.

*Group your activities into work packages. **A work package means a major sub-division of the project**. For each work package, enter an objective (expected outcome) and list the activities, milestones and deliverables that belong to it. The grouping should be logical and guided by identifiable outputs.*

Projects should normally have a minimum of 2 work packages. WP1 should cover the management and coordination activities (meetings, coordination, project monitoring and evaluation, financial management, progress reports, etc) and all the activities which are cross-cutting and therefore difficult to assign to another specific work package (do not try splitting these activities across different work packages). WP2 and further WPs should be used for the other project activities. You can create as many work packages as needed by copying WP1.

For very simple projects, it is possible to use a single work package for the entire project (WP1 with the project acronym as WP name).

Work packages covering financial support to third parties (⚠ only allowed if authorised in the Call document) must describe the conditions for implementing the support (for grants: max amounts per third party; criteria for calculating the exact amounts, types of activity that qualify for financial support (closed list), persons/categories of persons to be supported and criteria and procedures for giving support; for prizes: eligibility and award criteria, amount of the prize and payment arrangements).

⚠ *Enter each activity/milestone/output/outcome/deliverable only once (under one work package).*

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Work Package 1

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Work Package 1: Physical Infrastructure

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<tr><td>**Duration:**</td><td>M1- M60</td><td>**Lead Beneficiary:**</td><td>L-PIT</td></tr>
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Objectives

List the specific objectives which this work package aims to achieve

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The goal of this WP is to prepare, implement and maintain the physical infrastructure and provide related expertise necessary for the design and implementation of AI testing methodologies in real-world environments and for the delivery of associated services to the agrifoodTEF customers. Furthermore it will ensure an efficient coordination and collaboration between the physical entities of the various agrifoodTEF nodes and satellites, as well as guarantee a good alignment with the services delivered through WP2 and WP3. This is achieved via the following sub-objectives
O1.1 Set up, update and maintain state of the art **physical test and demonstration facilities** integrating them into one European TEF collaborative network
O1.2 Design, **provide** and improve **technical oriented services** and tests and experiments to TEF customers, in real-world testing scenarios, involving

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end-users.

O1.3 Implement common agrifoodTEF **test and experimentation methodologies** including seasonality management

O1.4 **Collect and prepare large, validated datasets** to connect to the agrifoodTEF data space as basis for digital testing scenarios and digital twin environments

O1.5 Provide showcasing opportunities to ecosystem actors

O1.6 Design and develop tools for user-experience collection and service delivery benchmarking

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Activities (what, how, where) and division of work

*Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task. Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating in bold the task leader. Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions. **Note:** In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as cost. Please indicate the in-kind contributions that are provided in the context of this work package. The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted. If there is subcontracting, please also complete the table below.*

Task No (continuous numbering linked to WP)	Task Name	Description	Participants Name	Role	In-kind Contributions and Subcontracting (Yes/No and which)
T1.1	Technology and use case outlook	This task will continuously monitor the latest available technologies and use cases in the field of usability and testing of AI solutions in close cooperation with our large network of ecosystem partners. The outcome will be used to further develop the agrifoodTEF infrastructure and improve the services being physically offered at the facilities.	**L-PIT** All other WP partners	BEN BEN	No
T1.2	Set up, update and integrate state of the art physical test infrastructure	This task will first screen the available physical infrastructure jointly available at various agrifoodTEF nodes and satellites. Then, this task will work with and support the nodes and satellites to set up extra infrastructure and update the existing one, with the aim of progressively addressing the changing needs of TEF customers throughout project duration. The technology scouting and use case outlook from Task 1.1 will be the basis for these activities. This can include the design and implementation of additional data collection (e.g. new sensor networks, remote monitoring and hardware components) in the test infrastructure. Best equipment will be selected based on good practices, market needs and previous experiences of the agrifoodTEF partners. Finally, the different physical infrastructure will be connected using the common methodology (Task 4.2 and 4.3) to obtain a maximal level of integration and collaboration between the nodes and satellites for offering high quality services	**L-PIT** all other WP partners	BEN BEN	No

		This task will also prepare every node and satellites to collect all data, coming from the performed tests, into qualitative data sets that are then made available via the federated agrifoodTEF dataspace (T2.2) which progressively becomes the data-centric asset of the TEF.				
T1.3	Execute the services for use case and test deployment	This task is executing the services that are listed in the agrifoodTEF service catalogue. This will involve conducting physical tests in real life conditions using common agrifoodTEF test and experimenting methodologies (WP4 T4.3) taking into account the TEF client's needs (ie. technology feedback, user acceptance, user experience) and the requirements of end users that will be adopting the solution being tested. For this purpose the validation services will be executed within co-created use-cases involving also smaller farmers and businesses (already related in many ways to the Partners running the testing facilities) to ensure tested AI and robotics solutions are valuable, usable and affordable.	**FEM** All other WP partners	COO BEN	No
T1.4	Keeping catalogue of physical services up-to-date	While Tasks 1.1 and 1.2 will keep the TEF nodes and satellites infrastructure up to date with latest technological enablers, this task will keep the catalogue of services appealing and well-suited for the market needs on physical services for validation of AI-based Robotics solutions. The services listed in the agrifoodTEF catalogue will be consequently updated and new services will be aggregated developed, based on trends and the explicit needs of the various nodes and satellites TEF customers. The result of the task will be an updated catalogue which will allow to maximise the uptake of AI-powered solutions in agri-food sector and maximise the impact on the agri-food's competitiveness.	**HSOS** All other WP partners	BEN BEN	No
T1.5	Showcasing facilities for Ecosystem support	The purpose of task T1.5 is to prepare and maintain the possibility of showcasing key aspects of a physical facility for all interested ecosystem representatives that want to familiarize themselves with ready-to-market technologies or who would be potential customers for what TEF have to offer.	**INRIA** All other WP partners	BEN BEN	No
T1.6	Yearly evaluation and planning	This task will be monitoring progress against set objectives and KPIs on a yearly basis. In particular it will analyse the results produced in the previous year and produce the statistics necessary to be measured against target KPIs (number of delivered services, number and type of TEF users, reached TRL for each TEF customer's solution being validated, customer satisfaction). Such analysis will be delivered to WP 6 to monitor, evaluate and follow up with corrective actions yearly plans with the PSG support.	**FBK** All other WP partners	COO BEN	No

Milestones and deliverables (outputs/outcomes)

Milestones are control points in the project that help to chart progress. Use them only for major outputs in complicated projects. Otherwise leave the section on milestones empty.

Means of verification are how you intend to prove that a milestone has been reached. If appropriate, you can also refer to indicators.

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For deliverables such as manuals, toolkits, guides, reports, leaflets, brochures, training materials etc., add in the 'Description' field: format (electronic or printed), language(s), approximate number of pages and estimated number of copies of publications (if any).

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Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS 2	Detailed	1	L-PIT	The contribution of this WP to M2 is a Kick-Off workshop to align the different physical infrastructure in order to achieve unification of procedures and methodologies. This workshop is based on the technology outlook (D1.1) and the initial report on available and envisioned physical services (D1.3).	12	D1.1 and D1.3 exist and the workshop has taken place
MS3	Launching all test sites according to the prepared common methodology	1	WR	The contribution of this WP to MS3 the unification of procedures and methodologies for all test sites and facilities of the agrifoodTEF based on the workshop results of M2.	24	Report D1.2

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D1.1	Online technology outlook	1	L-PIT	*[R — Document, report]*	*[PU — Public]*	M12, M24, M36, M48, M60	Periodic report on technology online catalogue development. On-line catalogue will map AI in agri-food solutions (in co-op with EDIHs). Providers of defined solutions above TRL6 will be invited to cooperate and supported by agrifoodTEF services.
D1.2	Professionalising and internationalizing needed physical infrastructure	1	Inria	*[R — Document, report]*	*[PU — Public]*	M24	Report is a summary of all confirmatory activities to fulfil MS3
D1.3	Characteristics of the use of services and directions of development report	1	HSOS	*[R — Document, report]*	*[SEN — Sensitive]*	M12, M24, M36, M48, M60	Periodic report on yearly evaluation of available services, definition of new services and next year planning taking into account customer expectations.
D1.4	Training development report	1	JR	*[R — Document, report]*	*[PU — Public]*	M12, M24, M36, M48, M60	Periodic report on collection and documentation of training entries and demonstration activities.

WP 1 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant	Costs											
	A. Personnel		B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
FBK	30 PM	181.650 €	100.000 €	25.000 €	100.000 €	100.000 €	0 grants	0 €	0 €	0 €	35.465 €	542.115 €
DFKI	60 PM	442.485 €	50.000 €	10.000 €	150.000 €	102.500 €	0 prizes	0 €	0 €	X €	52.849 €	807.834 €
EV ILVO	92 PM	800724 €	62.500 €	5.000 €	100.000 €	200.000 €	0 prizes	0 €	0 €	0 €	81.776 €	1.250.000 €
WR	188 PM	1.674.000 €	19.000 €	100.000 €	250.000 €	200.000 €	0 prizes	0 €	0 €	0 €	157.010 €	2.400.010 €
JR	113 PM	808.000 €	500.000 €	5.000 €	120.000 €	200.000 €	0 prizes	0 €	0 €	0 €	114.310 €	1.747.310 €
INRAE	63 PM	308.940 €	400.000 €	16.000 €	990.000 €	200.000 €	0 prizes	0 €	0 €	0 €	134.046 €	2.048.986 €
POLMI	56 PM	250.000 €	0 €	12.500 €	85.000 €	30.000 €	0 prizes	0 €	0 €	0 €	26.425 €	403.925 €
Inria	228 PM	1.525.563 €	0 €	131.000 €	500.000 €	57.000 €	0 prizes	0 €	0 €	0 €	154.949 €	2.368.512 €
L-PIT	104PM	624.000 €	0 €	15.000 €	130.000 €	150.000 €	0 prizes	0 €	0 €	0 €	64.330 €	983.330 €
WODR	32 PM	128.000 €	0 €	8.000 €	0 €	30.000 €	0 prizes	0 €	0 €	0 €	11.620 €	177.620 €
PSNC	69 PM	414.000 €	0 €	10.000 €	75.000 €	155.000 €	0 prizes	0 €	0 €	0 €	45.780 €	699.780 €
FEM	80 PM	350.021 €	100.000 €	0 €	120.000 €	100.000 €	0 prizes	0 €	0 €	0 €	46.901 €	716.922 €
RISE	61 PM	544.340 €	250.000 €	6.250 €	350.000 €	150.000 €	0 prizes	0 €	0 €	0 €	91.041 €	1.391.631 €
UNIMI	125 PM	500.000 €	0 €	25.000 €	50.000 €	150.000 €	0 prizes	0 €	0 €	0 e	50.750 €	775.750 €
ENG	35 PM	157.500 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.375 €	173.875 €
WU	16 PM	148.800 €	0 €	20.000 €	10.000 €	27.000 €	0 prizes	0 €	0 €	0 €	14.406 €	220.206 €
LNE	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
ACTA	116 PM	756.435 €	0 €	26.200 €	391.065 €	55.406 €	0 prizes	0 €	0 €	0 €	86.037 €	1.315.14 €
UNINA	48 PM	384.500 €	0 €	4.000 €	50.000 €	30.000 €	0 prizes	0 €	0 €	0 €	32.795 €	501.295 €
AstaZero	21 PM	161.805 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.326 €	173.131 €
GCVV	35 PM	210.253 €	390.000 €	17.500 €	1.332.500 €	142.500 €	0 prizes	0 €	0 €	0 €	146.493 €	2.239.246 €
HSOS	75 PM	460.585 €	25.000 €	20.000 €	700.000 €	100.000 €	0 prizes	0 €	0 €	0 €	91.391 €	1.396.977 €
Total	1657 PM	10.669.797 €	1.896.500 €	481.450 €	5.503.565 €	2.179.406 €	0 grants 0 prizes	0 €	0 €	0 €	1.449.750 €	22.160.468 €

Work Package 2

Work Package 2: Digital Infrastructure			
Duration:	M1 - M60	**Lead Beneficiary:**	POLIMI

Objectives

List the specific objectives which this work package aims to achieve

The agrifoodTEF digital infrastructure is the set of digital resources used to provide digital testing services which can be remotely accessed and are not tied to a physical facility. Among these resources we mention here computing resources (on-premises at node partners, cloud resources, HPC clusters, etc.), storage assets, internal protocols to access physically the data, internal software tools and services supporting agrifoodTEF digital services execution.

The goal is to develop, use and update a cross European digital testing and experimentation infrastructure to deliver testing, simulation, visualisation and benchmarking services. This is achieved via the following sub-objectives:

[O2.1]   Set up and constantly update an interoperable federated digital infrastructure providing access to the digital assets of the agrifoodTEF nodes and satellites

[O2.2]   Design, execute and improve services for the testing, benchmarking and evaluating European AI-based and robotics solutions and associated datasets

[O2.3]   Design and implement the agrifoodTEF Data Space

[O2.4]   Set up, design and provisioning of realistic simulations and visualisations tools for testing European AI, data and robotics solutions

[O2.5]   Design and execution of services for remote operation of digital testing facilities

These objectives will be achieved via an iterative approach starting from existing assets and services and incrementally developing new ones and enhancing existing ones. This iterative process is guided by yearly revisions and activity plan workshop to stimulate sharing of best practice sharing and continuous cross-fertilization between nodes and satellite

Activities (what, how, where) and division of work

*Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task.Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating **in bold** the task leader. Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions.*

Note: In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as cost. Please indicate the in-kind contributions that are provided in the context of this work package.The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted.

			Participants		In-kind
If there is subcontracting, please also complete the table below.					
Task No	Task Name	Description	Name	Role	Contributions and Subcontracting
T2.1	Setup, update, and operate the agrifoodTEF digital testing infrastructure	The Digital Testing Infrastructure (agrifoodTEF-DTI) will be designed, developed, and deployed starting from the integration of existing partner's digital assets and making these interoperable. The infrastructure is then integrated and updated with new assets on a periodic base The design and implementation of agrifoodTEF-DTI will comprise access protocols, policies, and agreements for both data and computing resources. It will also specify and support the definition of services according to both the "data to computing" and "computing to data" models, as well as the interoperability with external data and computing providers (e.g., Gaia-X resources). All agrifoodTEF digital testing services will be operated through the agrifoodTEF-DTI which will act as the one-stop-shop for digital testing service operation	**PSNC** All other WP partners	BEN BEN	No
T2.2	Design and operate the AgrifoodTEF self-sovereign dataspace	Task 2.2 oversees the creation of the agrifoodTEF Data Space as an essential asset for TEF sustainability. This task will address the collection, formatting, labelling, storing, integration, and documentation of the data available through the agrifoodTEF for the design and execution of data-based tests respecting data-owner imposed rules (with the possibility of exploiting "compute-to-data" models). Data will be stored, indexed and documented according to the terms and meta-model devised by Task 4.1. Tools for self-sovereign data collection, labelling, distribution, and pseudo-anonymization will be also developed and made available to agrifoodTEF partners and the customers. Data services will be exposed using standard technologies for compute-to-data in line with the latest development through connection with the EU initiatives on the Common Agricultural Data Spaces. Proper incentivization mechanisms will be devised towards data sharing and revenue sharing to build the data assets of the agrifoodTEF grow toward a main sustainability assets for agrifoodTEF	**POLIMI** All other WP partners	BEN BEN	No
T2.3	Develop and deploy tools for Simulation,	This task oversees the provisioning of simulation and visualisation tools for the virtualization and remotization of tests in relevant physical and	**RISE**	BEN	No

	visualisation and remotization of testing infrastructure	simulated environments. It will develop and deploy simulation tools for virtual testing and virtual data generation as well as design and deploy remotized interfaces to operate physical tests remotely making it possible the virtualization of physical testing facilities. The simulation, visualization tools and remote interfaces are made accessible to all the nodes and satellites of the agrifoodTEF to support their digital services	All other WP partners	BEN		
T2.4	Execute and optimize TEF digital services	This task is executing the services that are listed in the agrifoodTEF service catalogue under the digital pillar, i.e., services which are provisioned via the agrifoodTEF digital infrastructure and are not tied to a physical facility unless via remote access or virtualization. Among the digital services provisioned by this task we have the evaluation and assessment of third party data, the assessment of AI software on AI hardware (including non-functional metrics), the design of digital benchmarks (including metrics, protocols, testbeds, datasets) also for third parties, the online training on performance evaluation and digital benchmarking, the organization of open challenges/competitions/datathon, the execution of standardized digital benchmarks and evaluation campaigns with corresponding reporting, the evaluation and assessment of third party algorithms and AI models on agrifoodTEF datasets with corresponding reporting, safety and security evaluation of AI models and algorithms.	**POLIMI** All other WP partners	BEN BEN	No
T2.5	Yearly evaluation and planning	This task will be monitoring progress against set objectives and KPIs on a yearly basis. In particular it will analyse the results produced in the previous year and produce the statistics necessary to be measured against target KPIs (number of delivered services, number and type of TEF users, reached TRL for each TEF customer's solution being validated, customer satisfaction). Such analysis will be delivered to WP 6 to monitor, evaluate and follow up with corrective actions yearly plans with the PSG support.	**POLIMI** All other WP partners	BEN BEN	No

Milestones and deliverables (outputs/outcomes)

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Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS2	Big Picture Digital Architecture exists	2	PSNC	A digital architecture documentation exists that integrates the agrifoodTEF portal, the agrifoodTEF data space and the digital infrastructures at the TEF nodes and satellites.	M12	D2.1 and first release of D2.2 exist.
MS3	Vertical Integration of digital Services	2	POLIMI	Remote accessible digital services exist and can be booked	M24	At least one services exist that is conform to the developed quality standard and described according to the developed service metadata standard, so that it is ready for the agrifoodTEF portal (WP5)
MS5	Data space interoperability	2	POLIMI	agrifoodTEF data space is running and interoperable with the agrifoodTEF portal and other agri-food dataspace initiatives	M48	It is possible to push and pull data generated or used by the agrifoodTEF digital services using the agrifoodTEF data space.
Deliverable No	Deliverable Name	Work Package	Lead	Type	Dissemination	Due Date	Description

		N2	Beneficiary		Level	(month number)	(including format and language)
D2.1	Digital infrastructure requirements and initial catalogue of services	2.1	POLIMI	R — Document, report	*PU (catalogue), SEN (requirements)*	M6	Collection of requirements (e.g., for testing, execution, simulation, training, storage), existing assets, design of the infrastructure, first design of the agrifoodTEF digital infrastructure
D2.2	agrifoodTEF digital infrastructure documentation	2.1	WR	R — Document, report	SEN — Sensitive	M12 / M24 / M36 / M48 / M60	Yearly releases of the agrifoodTEF digital infrastructure documentation with updates and tutorials
D2.3	agrifoodTEF data space	2.2	ENG	R — Document, report	*SEN*	M12 / M24 / M36 / M48 / M60	Data space model aligned with the direction of EU CSAs on European data space, catalogue of available data sources, tools (collection, formatting, labelling, storing, integration) and definition of agrifoodTEF data services
D2.4	Reports on the simulation and remotization tools of the agrifoodTEF	2.3	RISE	R — Document, report	*PU*	M12 / M24 / M36 / M48 / M60	Requirement and catalogue of existing simulation tools and periodic updates of the agrifoodTEF simulation and remotization assets, with documentation, tutorials and manuals
D2.5	Overall digital services catalogue	All WP2 Tasks	POLIMI	R — Document, report	*PU*	M12 / M24 /M36 / M48 / M60	Yearly Reports on Digital Services

WP 2 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant		A. Personnel	B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
FBK	80 PM	484.400 €	0 €	25.000 €	0 €	0 €	0 grants	0 €	0 €	0 €	35.658 €	545.058 €
DFKI	70 PM	516.232 €	50.000 €	10.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	40.336 €	616.568 €
EV ILVO	92 PM	800.724 €	62.500 €	5.000 €	50.000 €	250.000 €	0 prizes	0 €	0 €	0 €	81.775 €	1.250.000 €
WR	188,3 PM	1.674.000 €	19.000 €	100.000 €	150.000 €	300.000 €	0 prizes	0 €	0 €	0 €	157.010 €	2.400.010 €
JR	61,4 PM	439.000 €	400.000 €	5.000 €	20.000 €	70.000 €	0 prizes	0 €	0 €	0 €	65.380 €	999.380 €
INRAE	109 PM	508.872 €	286.875 €	14.000 €	307.144 €	60.400 €	0 prizes	0 €	0 €	0 €	82.410 €	1.259.701 €
POLMI	111 PM	500.000 €	0 €	25.000 €	90.000 €	45.000 €	0 prizes	0 €	0 €	0 €	46.200 €	706.200 €
Inria	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
L-PIT	34 PM	204.000 €	0 €	5.000 €	100.000 €	100.000 €	0 prizes	0 €	0 €	0 €	28.630 €	437.630 €
WODR	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
PSNC	47 PM	282.000 €	0 €	5.000 €	200.000 €	130.000 €	0 prizes	0 €	0 €	0 €	43.190 €	660.190 €
FEM	20 PM	87.505 €	0 €	0 €	30.000 €	22.000 €	0 prizes	0 €	0 €	0 €	9.765 €	149.270 €
RISE	88 PM	781.875 €	0 €	6.250 €	50.000 €	150.000 €	0 prizes	0 €	0 €	0 €	69.169 €	1.057.294 €
UNIMI	20 PM	80.000 €	0 €	4.000 €	20.000 €	20.000 €	0 prizes	0 €	0 €	0 e	8.680 €	132.680 €
ENG	130 PM	585.000 €	0 €	15.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	42.000 €	642.000 €
WU	91,9 PM	837.000 €	0 €	38.000 €	50.000 €	120.000 €	0 prizes	0 €	0 €	0 €	73.150 €	1.118.150 €
LNE	128 PM	610.688 €	85.000 €	0 €	395.000 €	5000 €	0 prizes	0 €	0 €	0 €	76.698 €	1.172.386 €
ACTA	87 PM	564.945 €	116.000	0 €	105.055	32.505 €	0 prizes	0 €	0 €	0 €	57.295 €	875.800 €
UNINA	41 PM	347.000 €	0 €	4.000 €	0 €	30.000 €	0 prizes	0 €	0 €	0 €	26.670 €	407.670 €
AstaZero	52 PM	0 €	10.000 €	0 €	55.000 €	0 €	0 prizes	0 €	0 €	0 €	4.550 €	69.550 €
GCVV	35 PM	210.253 €	150.000 €	17.500 €	0 €	36.000 €	0 prizes	0 €	0 €	0 €	28.962 €	442.715 €
HSOS	75 PM	460.585 €	50.000 €	20.000 €	0 €	100.000 €	0 prizes	0 €	0 €	0 €	44.141 €	674.726 €
Total	1.561 PM	9.974.080 €	1.229.375 €	298.750 €	1.622.199 €	1.470.905 €	0 grants 0 prizes	0 €	0 €	0 €	1.021.671 €	15.616.981 €

Work Package 3

Work Package 3: Conformity and ELSA testing infrastructure					
Duration:	M1 - M60	**Lead Beneficiary:**		LNE	

Objectives

List the specific objectives which this work package aims to achieve

The general goal of this WP is to set up and implement non-functional and digital services that support the development and the market introduction of "standard compliant" and trustworthy AI and AI-powered Robotics technologies. Specific attention will also be given to AI solutions related to environmental sustainability and animal welfare in current and upcoming ethical and legal regulation, labelling, certification, compliance. This is achieved via the following sub-objectives:

O3.1 Design, implement and maintain services for AI standards conformity assessment, life cycle assessment (LCA), safety and (cyber)security
O3.2 Design, implement and maintain services for ethical, legal and societal aspects impact (ELSA)

O3.3 Set up supervised regulatory sandboxes to test innovative AI solutions in a controlled environment.

O3.4 Introduce and execute the services AI standards conformity LCA and ELSA for all nodes and satellites

Activities (what, how, where) and division of work

*Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task. Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating **in bold** the task leader. Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions.*

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Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T3.1	Design, update and improve conformity assessment	This task will first investigate the requirements for AI-based solutions in the agri-food domain as governed by existing regulatory frameworks and as imposed by end-users and perform a gap analysis between all the existing standards and such	**LNE**	BEN	NO

| | | standards and processes | requirements. Missing standards will then be drafted accordingly, in cooperation with working groups representing the key stakeholders of this field. Activities in this task will be then mainly dedicated to set up, for each relevant standard, a conformity assessment process combining tests (mix of physical and virtual facilities and services provided by WP1 and WP2), audits, document analysis, etc. This will result in technical solutions being proposed to assess compliance with the requirements contained in the regulations associated with the AI Act (e.g., regarding human oversight, robustness, non-discrimination and fairness, transparency, cybersecurity, etc.). Finally, the task will design services for conformity assessment standards on AI and AI-powered robotics technologies in agri-food (label, certification, etc.), taking into account existing voluntary and regulatory principles, regulation and certification standards to ensure a tangible result is handed to the TEF customers at the end of the process. This task will also cover cybersecurity assessment of AI systems in agri-food, with services running pentests, vulnerability scans, probes, checks on graphics cards, etc. The resulting services from these activities will be progressively added to the agrifoodTEF catalogue of services and activities will progressively shift from service design and implementation to service provisioning throughout project duration. | All other WP partners | BEN | |
| T3.2 | | Collect, improve and develop ELSA and LCA services | To realize trusted AI that is widely accepted and used, AI systems and the associated management systems, processes and human resources need to attend to values and needs of people, which may differ across (socio-economic) agricultural and consumption contexts in Europe.
This task will first review the available Ethical, Legal and Societal Aspects (ELSA services) intended for AI in agri-food for exploration, assessment and addressing of ELSA aspects during TEF customers' solutions validation. This will include assistance in subsequent re-design and after test implementation. Identified gaps will be addressed, if possible, with ELSA services that have previously been employed in other (non-agri-food) contexts.
In accordance with CAP policies and EU Green Deal strategy, requiring Innovation in the agri-food domain to be sustainable, this task will also analyse and support the implementation of services related to Life Cycle Assessment (LCA), as a useful tool to improve the environmental footprint of AI-driven and robotics solutions being tested with the aim of reducing their impacts.
To support the implementation of relevant ELSA services which test for conformity the solutions being validated, this task will also run reflection workshops to discuss and reflect on ELSA aspects of AI for agri-food with the involvement of 4 Helix actors, (researchers, businesses, government, citizens/consumers). In these | **WR**

All other WP partners | BEN

BEN | NO |

			workshops, smaller farms and businesses will be invited as a special interest group to address their needs related to knowledge and best practices The results of these workshop activities will be shared with the wider community of stakeholders, by means of podcasts and film clips to generate further interest for such services poised to pave the way to a smoother adoption of tested solutions.			
T3.3	Set up and support regulatory sandboxes	This task will support nodes and satellites in the agrifoodTEF that express the need for setting up a test bed where regulations can be set aside to maximize the testing and experimentation potential for AI driven robotic solutions. In cooperation with the satellite or node representatives a controlled environment that facilitates the further development, testing and validation of innovative AI system will be setup to avoid the regulatory burden that hampers testing of new technologies	**ILVO** All other WP partners	BEN BEN	NO
T3.4	Offer and realize conformity assessment ELSA, LCA and cybersecurity services	This task will take care of ensuring the resulting services from WP3 activities are progressively added to the agrifoodTEF catalogue of services and duly maintained and improved while WP3 overall activities gradually shift from service design and implementation to service provisioning and delivery.	**LNE** All other WP partners	BEN BEN	NO
T3.5	Yearly evaluation and planning	This task will be monitoring progress against set objectives and KPIs on a yearly basis. In particular it will analyse the results produced in the previous year and produce the statistics necessary to be measured against target KPIs (number of delivered services, number and type of TEF users, reached TRL for each TEF customer's solution being validated, customer satisfaction). Such analysis will be delivered to WP 6 to monitor, evaluate and follow up with corrective actions yearly plans with the PSG support.	**WR** All other WP partners	BEN BEN	NO

Milestones and deliverables (outputs/outcomes)

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For deliverables such as manuals, toolkits, guides, reports, leaflets, brochures, training materials etc., add in the 'Description' field: format (electronic or printed), language(s), approximate number of pages and

estimated number of copies of publications (if any).

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Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description		Due Date	Means of Verification
MS2	Finalization of the first ELSA service offered by TEF	3	WR	This milestone will be reached when the first TEF ELSA service is delivered to an SME. This is a demonstration that the services implemented by TEF and associated with this WP are indeed starting to benefit the ecosystem		M12	Acknowledgement of the receipt from the SME accepting the service
MS3	Finalization of the first conformity assessment service offered by the TEF	3	LNE	This milestone will be reached when the first TEF conformity assessment service is delivered to an SME. This is a demonstration that the services implemented by TEF and associated with this WP are indeed starting to benefit the ecosystem		M24	Acknowledgement of receipt from the SME regarding the service

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D3.1	Catalogue of conformity assessment standards covered by the TEF	3	LNE	R	PU	M24	Presentation of a restricted list of standards that will be considered by the TEF

D3.2	List of requirements incorporated into the new standards produced by the TEF	3	LNE	R	PU	M24	Document presenting the requirements not covered by the current standards.
D3.3	Conformity assessment protocol for each of the standards covered by the TEF	3	LNE	R	PU	M36	Document presenting, for each requirement contained in the standards short-listed by the TEF, the methods of conformity assessment that will be used.
D3.4	Overview over ELSA services & description of their purpose and function for AI development in agri-food	3	WR	R	PU	M24	Document presenting the ELSA services offered by the TEF, including details of the purposes and expected impacts of these services
D3.5	Finalized set of ELSA lab services & report about their performance in the living labs.	3	WR	R	PU	M36	Document presenting the complete and validated list of ELSA services offered by the TEF
D3.6	A series of 10 podcasts and 5 film clips reporting about the experiences of stakeholders with ELSA services.	3	WR	R	PU	M36	A series of 10 podcasts and 5 film clips reporting about the experiences of stakeholders with ELSA services.
D3.7	Business model ELSA lab services to effectuate after the project ends.	3	WR	R	PU	M54	Update of the ELSA services business model following feedback from the project.

WP 3 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant		A. Personnel	B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
FBK	25 PM	151.375 €	0 €	0 €	0 €	0 €	0 grants	0 €	0 €	0 €	10.596 €	161.971 €
DFKI	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
EV ILVO	18,6 PM	161.644 €	0 €	2.000 €	20.000 €	50.000 €	0 prizes	0 €	0 €	0 €	16.355 €	250.000 €
WR	94,2 PM	1837.000 €	0 €	50.000 €	0 €	235.000 €	0 prizes	0 €	0 €	0 €	78.540 €	1.200.540 €
JR	53,29 PM	381.000 €	200.000 €	2.000 €	20.000 €	50.000 €	0 prizes	0 €	0 €	0 €	45.710 €	698.710 €
INRAE	13 PM	66.739 €	0 €	4.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	4.951 €	75.690 €
POLMI	17 PM	75.000 €	0 €	3750 €	0 €	0 €	0 prizes	0 €	0 €	0 €	5.512 €	84.262 €
Inria	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
L-PIT	30,5 PM	183.000 €	0 €	7.000 €	20.000 €	40.000 €	0 prizes	0 €	0 €	0 €	17.500 €	267.500 €
WODR	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
PSNC	28 PM	168.000 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	12.110 €	185.110 €
FEM	35 PM	153.134 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	10.719 €	163.853 €
RISE	31 PM	272.750 €	0 €	2.500 €	20.000 €	50.000 €	0 prizes	0 €	0 €	0 €	24.168 €	369.418 €
UNIMI	13 PM	50.000 €	0 €	2.500 €	0 €	0 €	0 prizes	0 €	0 €	0 e	3.675 €	56.175 €
ENG	36 PM	162.000 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.690 €	178.690 €
WU	24,5 PM	223.200 €	0 €	15.000 €	0 €	40.000 €	0 prizes	0 €	0 €	0 €	19.474 €	297.674 €
LNE	43 PM	242.056 €	12.000 €	0 €	6.000 €	0 €	0 prizes	0 €	0 €	0 €	18.203 €	278.259 €
ACTA	2,1 PM	13.650 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	1.305 €	19.955 €
UNINA	31 PM	242.300 €	0 €	1.000 €	0 €	30.000 €	0 prizes	0 €	0 €	0 €	19.131 €	292.431 €
AstaZero	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
GCVV	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
HSOS	30 PM	184.234 €	0 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	13.456 €	205.690 €
Total	524,4 PM	3.567.083 €	212.000 €	112.750 €	86.000 €	495.000 €	0 grants 0 prizes	0 €	0 €	0 €	313.097 €	4.785.931 €

Work Package 4

Work Package 4: TEF Back Office: quality management, standards, methodology and common service blocks					
Duration:	M1 - M60	**Lead Beneficiary:**		JR	

Objectives

List the specific objectives which this work package aims to achieve

The overall goal of this WP is to maintain and increase the quality level of all services offered by a fully integrated agrifoodTEF. To achieve the overall objective following sub-objectives are defined:
O4.1 Establishing metadata standards for datasets and a common definition of terms
O4.2 Establishing common building blocks for services as well as common workflows for conformity testing.

O4.3 Increasing the scalability and internationality of the services

O4.4 TEF network wide methodology to ensure IP management of TEF customers
O4.5 Evaluation and improvement of the TEF development

Activities (what, how, where) and division of work

Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task. Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating in bold the task leader. Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions.

Note: In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as cost. Please indicate the in-kind contributions that are provided in the context of this work package.The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted.If there is subcontracting, please also complete the table below.

Task No	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role (COO, BEN, AE, AP, OTHER)	
T4.1	Common terms and meta-data standards	This task establishes a common language within the agrifoodTEF This includes standardized formats for data labels (incl. quality) and a standardized ontology of terms. Existing or emerging standards like ISO Standards on AI (e. g. ISO/IEC JTC 1/SC 42), results from Horizon 2020 projects (e. g. Atlas and Demeter) and AEF standards are considered. To support the implementation of the standards within the network and to	**JR** All other partners	BEN BEN	NO

		identify gaps within the existing standards, working groups for different topics (e.g., robotics, computer vision, remote sensing, etc.) are formed. This task is closely linked to task 4.2 from which standardization needs emerge. When new services are developed, related standards are coordinated in this task.				
T4.2	Common administrative procedures and protocols	This task deals with establishing a standardized procedures and protocols to support the satellite and the node in their operation to offer the agrifoodTEF services. For this, a framework of a service description will be created which includes a description of the testing process, metrics, thresholds and benchmarks, as well as boundary conditions. Common building blocks are defined on the administrative domain (e. g. common feedback form to measure satisfaction on usefulness and efficiency of the testing and experimentation). To ensure trustful operation, an agrifoodTEF internal IPR regulation will be defined as well as IPR regulations towards the agrifoodTEF customers (e.g., standardized NDA agreements, etc.). In the definition of the common framework as well as the building blocks, particular attention is paid to the balance between standardization and openness in order to be able to ensure quality and standardization while accommodating the rapid developments in the field of AI and robotics. This also applies for the building blocks defined in T4.3.	**JR** all other partners	BEN BEN	NO
T4.3	Common building blocks for services	To reach the goal of homogenizing related services within the TEF network, common building blocks and concepts of services are identified, defined and applied. This strengthens scalability and internationalization of the services. Common building blocks are for example methods for measuring yield, method to quantify weeding performance, or statistical methods. In a first step, the building blocks of the initial services are identified. Special focus is on regional aspects of the tests and experiments. This includes an error analysis and statistical significance analysis to make the results of a regional test transferable to all regions in Europe. Finally this task will pay specific attention to eusable service blocks target	**JR** All other partners	BEN BEN	NO

		services for affordable solution for smaller farms and businesses			
T4.4	Exchange and implementation of Knowledge and Best practices	Task 4.4 deals with exchange within the agrifoodTEF to share lessons learnt, improve quality, establish services in other nodes and satellites as well as to improve the overall strategy and to foster human capital development. In meetings held., twice a year, services established in the national loop will be presented, common building blocks identified and possible internationalization developed. In these meetings, smaller farms and businesses will be invited as a special interest group to address their needs related to knowledge and best practices..	**JR** <u>All other partners</u>	BEN BEN	NO
T4.5	Monitoring KPIs and implementation of standards and common building blocks	This task is about monitoring project-specific and user-specific KPIs as well as policy-related KPIs. Project-specific as well as user-specific KPIs are defined in and collected in cooperation with WP1, WP2 and WP3. The policy related KPI "The monitoring of the evolution of the share of the European industry in the global agri-food market" will be monitored in cooperation with WP5 (T5.2). Additionally, this task monitors the implementation of standards as well as common building blocks within the services and supports nodes and satellites by the implementation of standards and common building blocks.	**JR** L-PIT PSNC	COO	NO

Milestones and deliverables (outputs/outcomes)

Milestones *are control points in the project that help to chart progress. Use them only for major outputs in complicated projects. Otherwise leave the section on milestones empty.*

Means of verification are how you intend to prove that a milestone has been reached. If appropriate, you can also refer to indicators.

Deliverables *are project outputs which are submitted to show project progress (any format). Refer only to major outputs. Do not include minor sub-items, internal working papers, meeting minutes, etc. Limit the number of deliverables to max 10-15 for the entire project. You may be asked to further reduce the number during grant preparation.*

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Milest one No	Milestone Name	Work Package No	Lead Beneficiary	Description		Due Date (month number)	Means of Verification
MS2	Common administrative procedures and protocols defined	4.2	JR	Initial procedures and protocols for IPR management, service description and feedback are defined and implemented in the nodes and satellites.		M12	Administrative forms sent to all nodes and satellites
Delive rable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D4.1	Initial list of common terms and meta-data standards	4.1	JR	R — Document, report	PU — Public	M12	Initial list of common terms and meta-data standards used in the services
D4.2	Common administrative procedures and protocols	4.2	JR	R — Document, report	SEN — Sensitive	M24	Document describing the common administrative framework to develop and execute services.
D4.3	List of common building blocks of services	4.3	JR	R — Document, report	SEN — Sensitive	M12, M24, M36, M48, M60	Periodic update of the list of common building blocks of services as a table

WP 4 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant	Costs		B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
	A. Personnel											
FBK	60 PM	363.300 €	0 €	0 €	0 €	0 €	0 grants	0 €	0 €	0 €	25.431 €	388.731 €
DFKI	36 PM	265.491 €	0 €	20.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	19.984 €	305.475 €
EV ILVO	73,7 PM	640.934 €	0 €	10.000 €	0 €	50.000 €	0 prizes	0 €	0 €	0 €	49.065 €	750.000 €
WR	50 PM	446.400 €	25.000 €	26.000 €	0 €	100.000 €	0 prizes	0 €	0 €	0 €	41.818 €	639.218 €
JR	108 PM	773.000 €	0 €	20.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	55.510 €	848.510 €
INRAE	6 PM	30.264 €	0 €	3.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	2.328 €	35.592 €
POLMI	40 PM	180.000 €	0 €	9.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	13.230 €	202.230 €
Inria	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
L-PIT	34 PM	204.000 €	0 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	14.840 €	226.840 €
WODR	15 PM	60.000 €	0 €	3.000 €	0 €	1.895 €	0 prizes	0 €	0 €	0 €	4.542 €	69.437 €
PSNC	43 PM	258.000 €	0 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	18.620 €	284.620 €
FEM	50 PM	218.763 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	15.313 €	234.076 €
RISE	49 PM	433.875 €	0 €	12.500 €	0 €	50.000 €	0 prizes	0 €	0 €	0 €	34.746 €	531.121 €
UNIMI	43 PM	170.000 €	0 €	8.500 €	0 €	0 €	0 prizes	0 €	0 €	0 €	12.495 €	190.995 €
ENG	34 PM	153.000 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.060 €	169.060 €
WU	24 PM	223.200 €	0 €	15.000 €	10.000 €	15.000 €	0 prizes	0 €	0 €	0 €	18.424 €	281.624 €
LNE	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
ACTA	13 PM	84.500 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	6.265 €	95.765 €
UNINA	16 PM	133.500 €	0 €	2.000 €	0 €	20.000 €	0 prizes	0 €	0 €	0 €	10.885 €	166.385 €
AstaZero	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
GCVV	10 PM	67.894 €	0 €	15.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	5.802 €	88.696 €
HSOS	45 PM	276.351 €	0 €	12.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	20.184 €	308.536 €
Total	750 PM	4.982.473 €	25.000 €	182.000 €	10.000 €	236.895 €	0 grants 0 prizes	0 €	0 €	0 €	380.545 €	5.816.913 €

Work Package 5

Work Package 5: TEF Front Office: Ecosystem and Market Development and Visibility					
Duration:	M1 – M60	**Lead Beneficiary:**		WR	

Objectives

List the specific objectives which this work package aims to achieve

The overall objective is to establish the agrifoodTEF's 'front office' to increase its visibility reaching out to relevant stakeholder groups and engage them in the project's activities This is achieved via the following sub-objectives:

O5.1 Creates insight in the international market for agrifoodTEF

O5.2 build the ecosystem around the nodes and satellites and the project as a whole

O5.3 enhance the visibility by setting up communication channels for outreach

O5.4 establishing a web portal as the central marketplace to the nodes/satellites' services and training

O5.5 provide business support to establish sustainable business models for the nodes' and satellites services and ecosystem as a whole

Activities (what, how, where) and division of work

*Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task.Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating **in bold** the task leader. Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions. **Note:**In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as cost. Please indicate the in-kind contributions that are provided in the context of this work package.The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted.If there is subcontracting, please also complete the table below.*

Task No (continuous numbering linked to WP)	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)
			Name	Role	
T5.1	Network development and stakeholder engagement	This task will develop the network around the project as a whole and more specifically support the nodes and satellites in this activity meaning that stakeholder groups will be actively engaged and involved in the project's, nodes' and satellites activities. To that end networking and liaising with other	**EV ILVO**	BEN	No
			All other WP	BEN	

		relevant initiatives projects such as the agri-food related activities in EDIH, Data Spaces, agROBOfood and Horizon Europe will take place. Specifically, distribution channels for the innovations tested in the nodes and satellites will be established to provide relevant training support to EDIHs through the nodes and satellites. When necessary, the relevant training support will be developed in close cooperation with WP1, WP2 and WP 3. Along with the development of the dissemination and communication plan (T5.3), standardized communication material will be developed, and actions will be undertaken for approaching and actively engaging the ecosystem stakeholders. This task will bridge the communication gap between various actors, implementing a robust and effective public affairs strategy for the interaction with national and European stakeholders aiming to build the agrifoodTEF ecosystem (incl. farmers/advisors and their associations, public administration and governmental bodies, research institutes, machinery suppliers, ICT industry) and works together with WP3. To facilitate network development, a web portal will be developed as the main communication channel to materialize the nodes, their services and activities with stakeholders. For this purpose agrifoodTEF will build on the existing SmartAgriHubs portal and ecosystem (https://smartagrihubs.eu/portal).	partners involved		
T5.2	Business Support and Market Intelligence	This task will support the nodes and satellites in developing viable business models for their services. This includes a thorough market analysis and - alongside T5.1 - a need analysis of the various relevant stakeholder groups, followed by defining tangible revenue models and contracting in collaboration with T2.4. Primary focus will be on European market, but in year 2 also the world market will be looked at. The service offering will be supported by a central marketplace and service broker through the portal, technically supported by WP4. Besides the individual services, overall business plans for the nodes, satellites and the overall agrifoodTEF will be developed to sustain the ecosystem after the project.	**WR** All other WP partners involved	BEN BEN	No
T5.3	Communication and Dissemination	This task aims to draft and tailor a multi-channel plan for dissemination and communication of the project and its results. It will be delivered early in the project (M3), based on the initial strategy defined in Section 3.1. This plan will lay out: (i) stakeholder segments and their needs; (ii) the narrative and messages; and (iii) tools, channels, techniques, and strategies to fuel	**HSOS** All other WP partners	COO BEN	No

				stakeholder engagement across all communication touch points. The plan will be reviewed against KPIs and benchmarks, adjusting resources and channels accordingly.	involved		

Milestones and deliverables (outputs/outcomes)

Milestones are control points in the project that help to chart progress. Use them only for major outputs in complicated projects. Otherwise leave the section on milestones empty.

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Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS1	Strategy for Ecosystem development, communication & dissemination	5	WR	There is a clear, joint strategy and detailed plan on how the ecosystem will be developed including identification of channels for communication and dissemination	M6	A first, approved version of D5.1
MS4	Business plans	5	WR	After several iterations a mature, viable business plan for each node and satellite is set	M36	A second, approved version of D5.2
MS6	Sustainability plan	5	WR	A mature and viable sustainability plan is defined; the remaining project period is used for a smooth transition	M54	A final approved version of D5.2

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
				into a new organization			
D5.1	Dissemination & communication plan and reports, including network development	5	HSOS	[R — Document, report]	[PU — Public]	M6, M12, M24, M36, M48, M60	The main reference for dissemination and communication and activities and how the stakeholder network is evolving.
D5.2	Market analysis, Business and sustainability plans	5	WR	[R — Document, report]	[PU — Public]	M12, M30, M42, M54	Market analysis, individual business plans for nodes, satellites and their services, gradually merged into an agrifoodTEF sustainability plan (PDF, EN)
D5.3	agrifoodTEF portal	5	ILVO	[DEC —Websites, patent filings, videos, etc]	[PU — Public]	M24	First integrated version of the agrifoodTEF portal is online.

WP 5 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant		A. Personnel	B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
FBK	60 PM	363.300 €	0 €	20.000 €	0 €	0 €	0 grants	0 €	0 €	0 €	26.831 €	410.131 €
DFKI	30 PM	221.242 €	0 €	40.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	18.286 €	279.529 €
EV ILVO	84 PM	734.579 €	50.000 €	50.000 €	0 €	100.000 €	0 prizes	0 €	0 €	0 €	65.420 €	1.000.000 €
WR	94 PM	837.000 €	50.000 €	50.000 €	0 €	185.000 €	0 prizes	0 €	0 €	0 €	78.540 €	1.200.540 €
JR	55 PM	396.000 €	0 €	10.000 €	0 €	15.000 €	0 prizes	0 €	0 €	0 €	29.470 €	450.470 €
INRAE	12 PM	58.782 €	0 €	15.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	5.164 €	78.946 €
POLMI	33 PM	150.000 €	0 €	7.500 €	0 €	15.000 €	0 prizes	0 €	0 €	0 €	12.075 €	184.575 €
Inria	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
L-PIT	33 PM	198.000 €	0 €	25.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	15.610 €	238.610 €
WODR	13 PM	52.000 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	3.990 €	60.990 €
PSNC	33 PM	198.000 €	0 €	12.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	14.700 €	224.700 €
FEM	40 PM	175.011 €	0 €	30.000 €	0 €	20.000 €	0 prizes	0 €	0 €	0 €	15.751 €	240.762 €
RISE	38 PM	333.875 €	0 €	62.500 €	0 €	100.000 €	0 prizes	0 €	0 €	0 €	34.746 €	531.121 €
UNIMI	25 PM	100.000 €	0 €	5.000 €	0 €	40.000 €	0 prizes	0 €	0 €	0 €	10.150 €	155.150 €
ENG	50 PM	225.000 €	0 €	13.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	16.660 €	254.660 €
WU	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
LNE	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
ACTA	15 PM	97.500 €	0 €	22.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	10.093 €	154.288 €
UNINA	15 PM	110.000 €	0 €	6.000 €	0 €	20.000 €	0 prizes	0 €	0 €	0 €	9.520 €	145.520 €
AstaZero	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
GCVV	30 PM	181.781 €	265.000 €	25.000 €	0 €	435.000 €	0 prizes	0 €	0 €	0 €	63.474 €	970.256 €
HSOS	45 PM	276.351 €	0 €	12.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	20.184 €	308.536 €
Total	706 PM	4.721.422 €	365.000 €	410.000 €	0 €	930.000 €	0 grants 0 prizes	0 €	0 €	0 €	449.849 €	6.876.272 €

Work Package 6

Work Package 6: Project Management						
Duration:		M1 - M60	**Lead Beneficiary:**		FBK	
Objectives *List the specific objectives which this work package aims to achieve*						
FBK is responsible for the project management and will coordinate a distributed project management team (PSG). This team does the day-to-day management & technical coordination of the project with the following objectives: O6.1 financial project management within budgetary limits, and in accordance with requirements of the contract with the EC O6.2 high level steering of the project content through the cooperation of the PSG with an Advisory and Strategy Board O6.3 ensure an efficient internal project communication						
Activities (what, how, where) and division of work *Provide a concise overview of the work (planned tasks). Be specific and give a short name and number for each task.* *Show who is participating in each task: Coordinator (COO), Beneficiaries (BEN), Affiliated Entities (AE), Associated Partners (AP), indicating in bold the task leader.* *Add information on other participants' involvement in the project e.g. subcontractors, in-kind contributions.* *Note:* *In-kind contributions: In-kind contributions for free are cost-neutral, i.e. cannot be declared as cost. Please indicate the in-kind contributions that are provided in the context of this work package.* *The Coordinator remains fully responsible for the coordination tasks, even if they are delegated to someone else. Coordinator tasks cannot be subcontracted.* *If there is subcontracting, please also complete the table below.*						
Task No	Task Name	Description	Participants		In-kind Contributions and Subcontracting (Yes/No and which)	
			Name	Role		
T6.1	Financial and administrative project	The agrifoodTEF project management team will perform the financial project management. The financial and administrative activities will result in the monitoring, guidance and reporting to the agrifoodTEF General Assembly as	**FBK** all involved	COO BEN	NO	

	management	well as to the European Commission and the national Co-funding agencies. Specific tasks related to this portfolio are, amongst others: • Organise and implement progress and financial reporting mechanisms throughout the consortium. • Complete and deliver progress reports and financial reports for evaluation to the EC; of which the content will be delivered by the WP leaders.				
T6.2	Internal communication	This task manages the internal communication and the many associated means. We will setup and actively use the following methods and tools: • Consortium Agreement: Formal set of rules and guidelines for effective communication between the partners. • MS Teams: To enable easy data sharing and video conferencing for all project members, especially for work under development. • Version controlled fileserver: For software revision control, centralized backup and code sharing. • Document repository: For sharing released documents. • Email lists: For easy communication, making sure all stakeholders are addressed. • Project internal communication plan: Development and deployment of a detailed meeting plan (consortium, WP, Node, Code sprints, etc).	**FBK** all involved	COO BEN	NO	
T6.3	Project management (content)	In this task the content of the project is managed including agile progress monitoring. The work in this task is organized by the Project Steering Group that consists of the project coordinator, the WP leads as well as all node and satellite leads. This task includes an annual detailing of a joint work plan (lessons learnt from past period and corrective actions) for the entire agrifoodTEF. This joint work plan will integrate the yearly activity plans that each node and satellites have to make in the framework of WP 1, WP2 and WP3 (T1.4, T2.5 and T3.5). This task will monitor, follow up and evaluate these plans on a yearly basis. In the PSG the plans for the next year will be approved. The content of the TEFs will be supported by a strategy and an advisory board. The strategy board consists of important multipliers among the stakeholders of the TEFs as well as TEF coordinators from other domains, and the advisory board consists of representatives of the national co-funding organisations as well as the EC and AI legislators. This task includes the establishment and work of these boards. This task also includes the risk assessment and mitigation.	**FBK** all involved	COO BEN	NO	

Milestones and deliverables (outputs/outcomes)

Milestones *are control points in the project that help to chart progress. Use them only for major outputs in complicated projects. Otherwise leave the section on milestones empty.*

Means of verification are how you intend to prove that a milestone has been reached. If appropriate, you can also refer to indicators.

Deliverables *are project outputs which are submitted to show project progress (any format). Refer only to major outputs. Do not include minor sub-items, internal working papers, meeting minutes, etc. Limit the number of deliverables to max 10-15 for the entire project. You may be asked to further reduce the number during grant preparation.*

For deliverables such as meetings, events, seminars, trainings, workshops, webinars, conferences, etc., enter each deliverable separately and provide the following in the 'Description' field: invitation, agenda, signed presence list, target group, number of estimated participants, duration of the event, report of the event, training material package, presentations, evaluation report, feedback questionnaire.

For deliverables such as manuals, toolkits, guides, reports, leaflets, brochures, training materials etc., add in the 'Description' field: format (electronic or printed), language(s), approximate number of pages and estimated number of copies of publications (if any).

For each deliverable you will have to indicate a due month by when you commit to upload it in the Portal. The due month of the deliverable cannot be outside the duration of the work package and must be in line with the timeline provided below. Month 1 marks the start of the project and all deadlines should be related to this starting date.

The labels used mean:

 Public — fully open (⚠ automatically posted online on the Project Results platforms)

 Sensitive — limited under the conditions of the Grant Agreement

 EU classified — RESTREINT-UE/EU-RESTRICTED, CONFIDENTIEL-UE/EU-CONFIDENTIAL, SECRET-UE/EU-SECRET under Decision 2015/444.

Milestone No	Milestone Name	Work Package No	Lead Beneficiary	Description	Due Date (month number)	Means of Verification
MS1	Internal communication	6	FBK	There was a decision and tools for organizing the internal project communication and all tools are up and running.	M6	All tools for internal communication are operational
MS2	Boards operational	6	FBK	The project steering group, advisory and strategy board are established and operational	M12	First meetings of all boards had happened

Deliverable No	Deliverable Name	Work Package No	Lead Beneficiary	Type	Dissemination Level	Due Date (month number)	Description (including format and language)
D6.1	Risk mitigation plan	6	FBK	R — Document, report	PU	M6	Risk mitigation plan
D6.2	Communication material	6	FBK	R — Document, report ; DEC	PU	M12	Internal Communication plan and tools operational

WP 6 Estimated budget — Resources *(n/a for prefixed Lump Sum Grants)*

Participant		A. Personnel	B. Sub-contracting	C.1 Travel and subsistence	C.2 Equipment	C.3 Other goods, works and services	D.1 Financial support to third parties		D.2 Internally invoiced goods and services	D.3 PAC procurement costs	E. Indirect costs	Total costs
FBK	100 PM	605.500 €	0 €	30.000 €	0 €	100.000 €	0 grants	0 €	0 €	0 €	51.485 €	786.985 €
DFKI	20 PM	147.495 €	0 €	10.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.024 €	168.519 €
EV ILVO	51,4 PM	447.289 €	0 €	10.000 €	0 €	10.000 €	0 prizes	0 €	0 €	0 €	32.710 €	500.000 €
WR	12,6 PM	111.600 €	0 €	20.000 €	0 €	17.635 €	0 prizes	0 €	0 €	0 €	10.446 €	159.682 €
JR	29 PM	213.000 €	0 €	20.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	16.310 €	249.310 €
INRAE	7 PM	39.728 €	0 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	3.340 €	51.068 €
POLMI	29 PM	130.000 €	0 €	6.500 €	0 €	10.000 €	0 prizes	0 €	0 €	0 €	10.255 €	156.755 €
Inria	10 PM	113.832 €	0 €	10.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	8.668 €	132.500 €
L-PIT	36 PM	216.000 €	0 €	10.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	15.820 €	241.820 €
WODR	10 PM	40.000 €	0 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	3.360 €	51.360 €
PSNC	28 PM	168.000 €	0 €	10.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	12.460 €	190.460 €
FEM	10 PM	43.753 €	0 €	45.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	6.213 €	94.966 €
RISE	36 PM	322.750 €	0 €	12.500 €	0 €	10.000 €	0 prizes	0 €	0 €	0 €	24.168 €	369.418 €
UNIMI	35 PM	140.000 €	0 €	7.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	10.290 €	157.290 €
ENG	35 PM	157.500 €	0 €	5.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	11.375 €	173.875 €
WU	6,1 PM	55.600 €	0 €	12.000 €	0 €	9.358 €	0 prizes	0 €	0 €	0 €	5.387 €	82.346 €
LNE	5 PM	28.590 €	0 €	5000 €	3000 €	0 €	0 prizes	0 €	0 €	0 €	2.561 €	39.151 €
ACTA	0 PM	0 €	0 €	0 €	0 €	0 €	0 prizes	0 €	0 €	0 €	0 €	0 €
UNINA	12 PM	81.400 €	0 €	3.000 €	0 €	10.000 €	0 prizes	0 €	0 €	0 €	6.608 €	101.008 €
AstaZero	4 PM	0 €	0 €	19.750 €	0 €	23.000 €	0 prizes	0 €	0 €	0 €	2.992 €	45.742 €
GCVV	10 PM	78.844 €	0 €	25.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	7.269 €	111.114 €
HSOS	30 PM	184.234 €	25.000 €	8.000 €	0 €	0 €	0 prizes	0 €	0 €	0 €	15.206 €	232.440 €
Total	517 PM	3.325.117 €	250.00 €	284.750 €	3.000 €	189.994 €	0 grants 0 prizes	0 €	0 €	0 €	267.950 €	4.095.811 €

Overview of Work Packages (n/a for Lump Sum Grants)

Staff effort per work package

Fill in the summary on work package information and effort per work package.

Work Package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Start Month	End Month	Person-Months
1	Physical Infrastructure	10	L-PIT	M1	M60	1657
2	Digital Infrastructure	8	POLIMI	M1	M60	1561
3	Conformity and ELSA testing infrastructure	18	LNE	M1	M60	524
4	TEF Back Office: quality management, standards, methodology and common service blocks	5	JR	M1	M60	750
5	TEF Front Office: Ecosystem and Market Development and Visibility	4	WR	M1	M60	706
6	Project Management	1	FBK	M1	M60	517
				Total Person-Months		5715

Staff effort per participant

*Fill in the effort per work package and Beneficiary/Affiliated Entity. Please indicate the number of person/months over the whole duration of the planned work. Identify the work-package leader for each work package by showing the relevant person/month figure in **bold***.

Participant	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	Total Person-Months
FBK	30	80	25	60	60	**100**	355
DFKI	60	70	0	36	30	20	216
EV ILVO	92	92	18,6	73,7	84,4	51,4	412
WR	188.3	188.3	94.2	50.2	**94.2**	12.6	628
JR	113	61,4	53,29	**108,11**	55,38	29,79	421
INRAE	63	109	13	6	12	7	209
POLIMI	56	**111**	17	40	33	29	286
INRIA	228,2	0	0	0	0	10	238
L-PIT	**104**	34	30,5	34	33	36	272
WODR	32	0	0	15	13	10	70
PSNC	69	47	28	43	33	28	248
FEM	80	20	35	50	40	10	235
RISE	61	88	31	49	38	36	303
UNIMI	125	20	13	43	25	35	260
ENG	125	130	36	34	50	35	410
WU	16	91,9	24,5	24,5	0	6,1	163
LNE	0	128	**43**	0	0	5	176
ACTA	35	87	2	13	15	0	152
UNINA	48	41	31	16	15	12	163
ASTA ZERO	21	52	0	0	0	4	77
GCVV	35	35	0	10	30	10	120
HSOS	75	75	30	45	45	30	300
Total Person-Months	1657	1561	524	750	706	517	5715

4.3 Timetable

Timetable (projects of more than 2 years)

Fill in cells in beige to show the duration of activities. Repeat lines/columns as necessary.

Note: Use actual, calendar years and quarters. In the timeline you should indicate the timing of each activity per WP. You may add additional columns if your project is longer than 6 years.

ACTIVITY	2023				2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
T1.1 Technology and use case outlook	▓	▓	▓	▓	▓			▓			▓	▓			▓	▓				
T1.2 Set up, update and integrate state of the art physical test infrastructure	▓	▓	▓	▓	▓			▓	▓			▓	▓			▓	▓			
T1.3 Execute the services for use case and test deployment			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T1.4 Keeping catalogue of physical services up-to-date					▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T1.5 Showcasing facilities for Ecosystem support	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T1.6 Yearly evaluation and planning				▓				▓				▓				▓				▓
T2.1 Setup, update, and operate the agrifoodTEF digital testing infrastructure	▓	▓	▓	▓	▓	▓	▓			▓	▓	▓	▓	▓	▓	▓				
T2.2 Design and operate the AgrifoodTEF self-sovereign dataspace			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓				
T 2.3 Develop and deploy tools for Simulation, visualisation and remotization of testing infrastructure			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T2.4 Execute and optimize TEF digital services					▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T2.5 Yearly evaluation and planning				▓			▓			▓				▓				▓		
T 3.1 Design, update and improve conformity assessment standards and processes	▓	▓	▓	▓	▓	▓	▓	▓		▓	▓	▓		▓	▓	▓		▓	▓	▓
T 3.2 Collect, improve and develop ELSA and LCA services	▓	▓	▓	▓	▓			▓	▓			▓	▓			▓	▓			
T3.3 Offer and realize conformity assessment ELSA, LCA and cybersecurity services	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
T3.4 Offer and realize conformity assessment ELSA, LCA and cybersecurity services			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓

T3.5 Yearly evaluation and planning																							
T 4.1 Common terms and meta-data standards																							
T 4.2 Common administrative procedures and protocols																							
T4.3 Common building blocks for services																							
T 4.4 Exchange and implementation of Knowledge and Best practices																							
T 4.5 Monitoring KPIs and implementation of standards and common building blocks																							
T 5.1 Network development and stakeholder engagement																							
T5.2 Business Support and Market Intelligence																							
T 5.3 Communication and Dissemination																							
T 6.1 Financial and administrative project management																							
T 6.2 Internal communication																							
T 6.3 Project management (content)																							

4.4 Subcontracting (n/a for prefixed Lump Sum Grants)

Subcontracting

Give details on subcontracted project tasks (if any) and explain the reasons why (as opposed to direct implementation by the Beneficiaries/Affiliated Entities).

Subcontracting — Subcontracting means the implementation of 'action tasks', i.e. specific tasks which are part of the EU grant and are described in Annex 1 of the Grant Agreement.

***Note:** Subcontracting concerns the outsourcing of a part of the project to a party outside the consortium. It is not simply about purchasing goods or services. We normally expect that the participants have sufficient operational capacity to implement the project activities themselves. Subcontracting should therefore be exceptional.*

Include only subcontracts that comply with the rules (i.e. best value for money and no conflict of interest; no subcontracting of coordinator tasks).

Work Package No	Subcontract No	Subcontract Name	Description	Estimated Costs	Justification	Best-Value-for-Money
Other issues: *If subcontracting for the entire project goes beyond 30% of the total eligible costs, give specific reasons.*	Given the nature of the project, subcontracting has been considered by most of the Partners as an element of flexibility in budget planning and its use will be rather driven by the needs of individual Partners to fulfil obligations associated with scaling up service provisioning in the various nodes / satellites (use external farms or rental of expensive equipment such as trucks with mobile lab, use of external facilities for integration in wider farm-to-fork supply chain, organisation of events in agricultural communities etc.). Such subcontracting budget adds-up to around 5% of the overall project costs and it never exceeds 30% at Partner's level. It is not planned to be used for entire tasks in any of the WPs, hence the missing data in this table.					

5. OTHER

5.1 Ethics

Ethics
If the Call document contains a section on ethics, the ethics issues and measures you intend to take to solve/avoid them must be described in the annexed Ethics issues table .
See annex

5.2 Security

Security
Describe security issues that may arise during the project implementation in the annexed Security issues table.   *Indicate if there is need for EU classification of information (Decision 2015/444) or any other specific security measures.*   *Note: Beneficiaries must ensure that their projects are not subject to national/third country security requirements that could affect the implementation or put into question the award of the grant (e.g. technology restrictions, national security classification, etc).*
See annex

6. DECLARATIONS

Double funding	
Information concerning other EU grants for this project ⚠ *Please note that there is a strict prohibition of double funding from the EU budget (except under EU Synergies actions).*	**YES/NO**
We confirm that to our best knowledge neither the project as a whole nor any parts of it have benefitted from any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. Erasmus, EU Regional Funds, EU Agricultural Funds, European Investment Bank, etc)*. If NO, explain and provide details.	YES
We confirm that to our best knowledge neither the project as a whole nor any parts of it are (nor will be) submitted for any other EU grant *(including EU funding managed by authorities in EU Member States or other funding bodies, e.g. Erasmus, EU Regional Funds, EU Agricultural Funds, European Investment Bank, etc)*. If NO, explain and provide details.	YES

Financial support to third parties (if applicable)
If in your project the maximum amount per third party will be more than the threshold amount set in the Call document, justify and explain why the higher amount is necessary in order to fulfil your project's objectives.
Insert text