

WP 5

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Author	Leader UAL: Cynthia Giagnocavo, Manuel Berenguel, Miguel Giménez-Moolhuyzen, José Carlos Moreno Co-leader AKI: Andras Molnar Participants: Ahmad Issa (Fraunhofer IPA), Maya Marinova (BASSCOM)
Contact details of the coordinator	George Beers george.beers@wur.nl

LIST OF ABBREVIATIONS

Abbreviation Explanation

AI	Artificial Intelligence
AKI	Research Institute of Agricultural Economics (HU)
ΑΡΙ	Application Programming Interface
ATN	Agricultural Technology Navigator
BASSCOM	The Bulgarian Association of Software Companies (BG)
СС	Competence Centre
CPS	Cyber Physical System
D	Deliverable
DIH	Digital Innovation Hub
DOW	Description Of Work
DSS	Decision Support System
EC	European Commission
ERP	Enterprise Resource Planning
FMIS	Farm Management Information Systems
GIS	Geographical Information System
GPS	Global Positioning System
НРС	High Performance Computing
ICT	Information and Communication Technologies
IoF2020	Internet of Food and Farm 2020
ΙοΤ	Internet of Things
IPM	Integrated Pest Management
IPA	Fraunhofer Institute for Manufacturing Engineering and Automation (DE)
IP	Innovation Portal
IT	Information Technologies
SAH IP	SAH Innovation Portal
М	Month

PSG	Project Steering Group
PU	Public
R	Report
RC	Regional Cluster
RTO	Applied Research and Technology Organizations
R&D	Research and Development
SAH	SmartAgriHubs
SCADA	Supervisory Control And Data Acquisition
SME	Small and Medium Enterprise
S&H	Software and Hardware
твс	To Be Confirmed
UAL	Universidad de Almería - Cátedra COEXPHAL-UAL (ES)
UAV	Unmanned Aerial Vehicle
URL	Uniform Resource Locator
VRT	Variable Rate Technology
WP	Work Package
WUR	Wageningen University and Research (NL)

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PROJECT SUMMARY

Digital technologies enable a transformation into data-driven, intelligent, agile and autonomous farm operations, and are generally considered as a key to address the grand challenges for agriculture. Recent initiatives showed the eagerness of the sector to seize the opportunities offered by ICT and in particular data-oriented technologies. However, current available applications are still fragmented and mainly used by a small group of early adopters. Against this background, SmartAgriHubs (SAH) has the potential to be a real game changer in the adoption of digital solutions by the farming sector.

SAH will leverage, strengthen and connect local DIHs and numerous Competence Centres (CCs) throughout Europe. The project already put together a large initial network of 140 DIHs by building on its existing projects and ecosystems such as Internet of Food and Farm (IoF2020). All DIHs are aligned with 9 regional clusters, which are led by organizations that are closely related to national or regional digitization initiatives and funds. DIHs will be empowered and supported in their development, to be able to carry out high-performance Innovation Experiments (IEs). SAH already identified 28 Flagship Innovation Experiments (FIEs), which are examples of outstanding, innovative and successful IEs, where ideas, concepts and prototypes are further developed and introduced into the market.

SAH uses a multi-actor approach based on a vast network of start-ups, SMEs, business and service providers, technology experts and end-users. End-users from the agri-food sector are at the heart of the project and the driving force of the digital transformation.

Led by the Wageningen University and Research (WUR), SAH consists of a pan-European consortium of over 160 Partners representing all EU Member States. SAH is part of Horizon2020 and is supported by the European Commission with a budget of \in 20 million. The University of Almería leads the WP5 on Competence Centres, within which this deliverable is presented.

EXECUTIVE SUMMARY

This document is the output of Task 5.2 in Work Package 5 about Competence Centres and provides the second version of the catalogue of Competence Centres participating in SmartAgriHubs Innovation Experiments, Digital Innovation Hubs and other identified Competence Centres, providing their potential services. Although according to the project planning this is the second and last version of deliverable D5.2, during the next years of the project, it will be continuously refined and expanded within the online SmartAgriHubs Innovation Portal, developed under Work Package 1. At the moment the deliverable is released, it has been quite useful to detect those Competence Centres in Flagship Innovation Experiments not already registered in the SAH Innovation Portal, that is the first requirement to include later on their competencies (services) and systems (including several technologies), that is the main information to create deliverable 5.1. Categorization of Digital Technologies related to Agriculture sector that has to be released in month 36 by Work Package 5 (University of Almería). Also notice that at the time this deliverable is released, the existing Innovation Experiments are the Flagship Innovation Experiments, as the Open Call for including new Innovation Experiments has not been released. This deliverable also takes into account the effect of the cancellation of the SmartAgriHubs Stakeholder Conference Connecting the dots in the agri-tech network to be held in Bucharest from the 9th to the 11th of March 2020, due to COVID-19 and the actions taken to overcome this problem.

Competence Centres (CCs) form the backbone of the Digital Innovation Hubs (DIHs) in the SmartAgriHubs (SAH) network. They provide the digital technological infrastructure of the DIH by offering advanced technical expertise, access to the latest knowledge and information on digital technologies, as well as test facilities such as labs, pilot and experimental facilities, and other technological and scientific infrastructure. CrCs may include universities, applied research and technology organizations (RTO), laboratories and demonstration farms and entities with important R&D labs, all of them having technology transfer capabilities.

Within their respective DIHs, CCs cooperate with all relevant partners in the agri-food innovation value chain to support farmers, businesses and other agri-food entities in their digital transformation. This entails establishing connections with a wide range of technology companies, research institutions, and digital solutions providers as well as potential users and customers. Given that no single CC can be the front-runner in all fields, strong linkages will be built between complementary CCs, both within and between the different DIHs.

This report presents existing CCs, in order to ease the operations of DIHs and Flagship Innovation Experiments (FIEs), as well as including some relevant CCs identified outside the DIHs and FIEs. The first version of the report was available at the early stage of the project (M06, April 30, 2019); and has been updated based on the current information available on the SAH Innovation Portal (SAH IP), developed in the course of WP1. The first version accounted for those CCs within the Flagship Innovation Experiments (FIEs) already in the proposal, and was updated with the information provided in the FIEs execution plans (D3.2, M06). The last available version of FIEs progress report has been used in this deliverable. As said before, the open call for new Innovation Experiments has not yet been launched, so no information is available about new CCs at the time this deliverable has to be released (although the contents will be continuously updated in the SAH IP). A session devoted to *showcasing Competence Centres an explaining the Agricultural Technology Navigator* was developed for the

SAH Stakeholder Conference. The idea was that in this workshop CCs could see how they can register their solutions in the SmartAgriHubs Agricultural Technology Navigator (ATN). With the information provided by CCs, different stakeholders (farmers, DIHs, investors, co-operatives, tech companies and others interested parties) will be able to find the technolog-ical solutions they need and see what the growing community of SmartAgriHubs Competence Centers has to offer. This workshop has been substituted by video tutorials explaining the way of registering solutions that will be provided to the stakeholders before June, 2020. Moreover, also the Regional Clusters (RC) annual progress report summarizing their progress from M01 to M17 has been considered in this deliverable, as information of new DIHs and corresponding CCs has been provided (this has been added during April, 2020).

Table 1 summarizes the identified CCs at the time this deliverable has been issued.

RC	#CCs in FIES	#CCs in DIHs ¹	#New CCs²	#Registered in the SAH IP ³	#CCs registered in the SAH IP
RC1 – Ireland & UK	6	20	5	18	8
RC2 – Scandinavia	10	0	3	7	6
RC3 – France	7	102	1	14	6
RC4 – North West Europe	10	14	7	18	13
RC5 – Central Europe	1	61	1	6	3
RC6 – North East Europe	10	66	2	14	5
RC7 – Iberia	8	74	2	11	8
RC8 – Italy & Malta	2	89	2	7	7
RC9 – South East Europe	4	12	5	10	7
Total	58	438	28	105	63

Table 1 – Summary of identified CCs

¹Confirmed and potential CCs belonging to SAH DIH catalogue not in FIES. Potential means that some of the still require confirmation by the RCs and DIHs

²Different from those already registered in FIEs and DIHs

³Organisations that can be considered CCs but have been registered with a different profile or without profile

At the beginning of the project, SAH expected to reach a pan-European network of at least 2000. This deliverable has helped to improve several aspects:

- 1. Analyzing the information in the SAH IP, it has been detected in the first draft of the deliverable (February 2020) that several CCs linked to FIEs have not yet being registered. This has been communicated to WP3 to ask them for doing so.
- 2. DIHs have not registered there linked CCs (only the number of CCs was provided to WP5, but not the contacts), neither CCs belonging to DIHs have registered in the SAH IP (where the membership to a DIH must be specified). This is the main source of CCs for the SAH IP, so that in view of the analysis of this deliverable, instructions to RCs and DIHs have been issued to facilitate the registration of CCs belonging to DIHs already registered in SAH IP.

- 3. There were several organisations in the portal that WP5 not considered to be CCs. This was communicated to WP1. This is due to the fact that the SAH IP also shows those organisations that have registered themselves as CCs, but that do not fulfil the requirements for being a CC. They have to be removed from the map. Moreover, some implementation issues related to organisations that not being a CC, are visible in the map of CCs have been reported to WP1.
- 4. New CCs not included in the proposal neither in FIEs have registered in the SAH IP. This is important as it means in few time the project is reaching new stakeholders.
- 5. Once registered, the CCs will use the ATN to include their systems (technological solutions) and competencies, so that this information will be available to different stakeholders and to develop deliverable 5.1.
- 6. Many organisations have different roles and have selected only one of them when registering in the SAH IP. For instance, some DIHs that also are CCs have only registered themselves as DIHs (what is even evident by the icon used in SAH IP).

These comments are reflected in the information (tables) included in this deliverable.

1. INTRODUCTION

Technological change and digitalization in particular has driven the transformation towards more effective, efficient and sustainable agricultural production processes, practices and products. However, continued progress depends on the supply and translation of technolog-ical advances into practice.

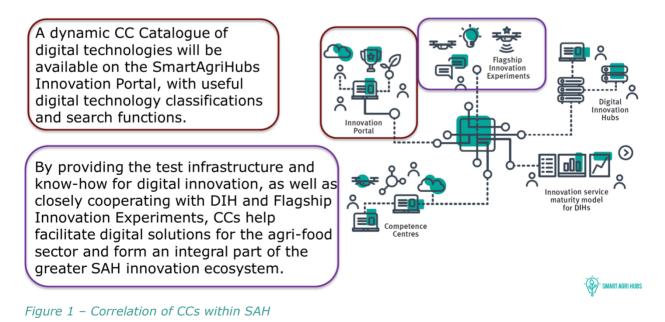
WP5 is establishing a pan-European network of excellence of CCs associated with DIHs (WP4) to provide R&D, technical expertise, laboratory and demonstration facilities, testing and validation, and Information and Communication Technologies (ICT) skills content to users. In SAH, CCs may be local or located outside the region, providing technologies and solutions not available inside a determined region.

One of the main objectives of WP5 (Task 5.2, Deliverable 5.2), is to create a catalogue of CCs, with its central registry provided through the WP1 SAH IP, in order to create ease of access to innovative knowledge and technologies and testing and validations infrastructures necessary for the farming community. In order to do so, it is also necessary to map actual digital technologies available in the agriculture sector, as well as trending ones and technologies from other sectors that could be applied within the agriculture sector (Task 5.1). Both tasks are required for further deliverables in WP5: D5.3. Competence profiling and white-spot analysis, D5.4 Procedures for governance and management of CC network and criteria for new CCs, D5.5 Development of materials for trainings and inter-regional demonstrations of CCs, D5.6 Report on CC good practices, and D5.7 Report on attracting new CC. Therefore, having a first catalog of CCs including their main features is a basic task for the project.

Regarding other WPs there are links and synergies with:

- WP1. D5.2 will feed the SAH IP (D1.4) and will be updated throughout the project. Moreover, collaboration will be also in the framework of ecosystem building of CCs and their community of users (D1.3).
- WP3. To ensure that CCs are available to provide FIE users' digital technology requirements. Information from D3.2 (FIEs execution plans) has been used to update D5.2.
- WP4. Task 5.2 will collaborate with RCs to identify CCs and with WP4 to coordinate technologies provided by the CCs to DIH in order to meet the needs of IE and other users.

The outline of this deliverable is an updated catalogue of CCs included in FIEs and DIHs in the proposal, as well as other relevant early identified CCs, in collaboration with RCs.



2. APPROACH & METHODOLOGY

This deliverable has been developed using the following information:

- Proposal (DOW): List of CCs included in the FIEs, along with basic services/technologies offered. List of CCs associated to the 140 DIHs included in the proposal.
- Final FIE execution plans have also been taken into account to refine the initial list, provided by WP3, and the lastest version of the FIEs progress reports.
- Last version of DIHs catalogue, that only included information about number of CCs in DIHs, but not information about those CCs, that would make easier the analysis in this deliverable.
- The Regional Clusters (RC) annual progress report summarizing their progress from M01 to M17 (updated in March-April, 2020).
- Information that has been delivered by RCs and WP3 via email.
- Information gathered from searching internet, analysing URLs and EC documents to build a preliminary list of CCs not included in DIHs/RCs and coming from other fields.
- Information of CCs registered in the SAH IP at the moment this deliverable is issued.

Four different tables have been generated as shown in the following sections. Information about registry in the SAH IP has been included:

- Catalogue of CCs included in FIEs in the proposal (updated with information about the registry process in the SAH IP): Tables captions describe RC number and name, main farmers' organizations involved in FIEs, Tech SMEs/other institutions and corresponding DIHs (main ecosystem of CCs). CCs are described by their name (including an hyperlink to the web page) and country, FIEs in which they participate in the proposal, contact person (hyperlink to email address, not in the public version due to data protection issues) and basic competences (services and technologies offered). Notice that technologies have been described using a basic list provided at the start of the project, coming from several sources: Information in FIEs, EC projects and platforms like SmartAKIS, IoF2020, Smart Specialisation Platform knowledge repository, Merlin, IM4S, Gartner Hype Cycle for Emerging Technologies 2018, AgEng events, documents such as TEAGASC Technology Foresight 2035, The future of Technology in Agriculture from STT Netherlands Study Centre for Technology Trends and many others. As Task 5.1 is devoted to technology categorisation, technologies included in this document will be updated to fit the final categories in D5.1, that will be developed throughout the project (M36). The information on systems (technology solutions) and competences introduced by the CCs in the SAH IP will be use to perform this technology categorisation, after a clustering analysis performed by the University of Almería (UAL). This will help to standarize categories of technologies to facilitate matchmaking which will take place in the SAH IP.
- Catalogue of CCs belonging to SAH DIH catalogue (updated with information about the registry process in the SAH IP and using the last available version of the DIH catalog provided by WP4 July 2019 and RCs annual progress reports). Three columns including DIH (name and main agricultural sector served), URL and Associated CCs (also including URL) are provided. In this case there is no information regarding services and technologies offered. The list of CCs has been provided by RCs (as the information in both the proposal and the template for gathering information in WP4 on DIHs only provides information on the existence or number of involved CCs). This is the main challenge at this moment, to push CCs in DIHs to register in the SAH IP.
- New CCs already registered in SAH IP not belonging to FIEs and/or DIHs. These CCs have been approached by different partners of the project or either they have reached the SAH IP independently.
- Preliminary list of CCs not included in DIHs/RCs and coming from other fields (and related initiatives). This table contains information on CCs or related initiatives not included in those DIHs listed in the previous paragraph but with competences in agri-domain, as well as CCs from other fields which competences can be useful in the agrifood scope. This list will grow during the project with the contribution of Fraunhofer IPA (Task 5.3 WhiteSpot Analysis and 5.7 How to attract new CCs) and with the development of the network of

CCs. Thus, the table contains basic information on full and short name of CCs, URL (useful for detecting main services and technologies) and country.

Note: grey color is used in those cases still requiring review of RCs or confirmation through the SAH IP.

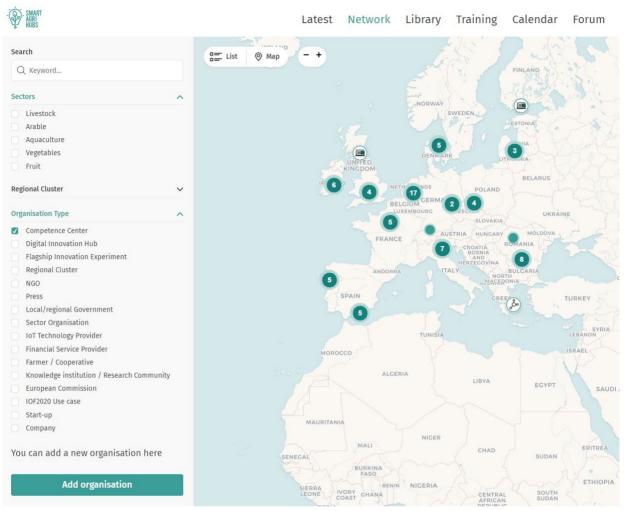


Figure 2 – View of CCs already registered in the Innovation Portal

3. RESULTS

3.1 CATALOGUE OF COMPETENCE CENTRES INCLUDED IN FLAGSHIP INNOVATION EXPERIMENTS

Ireland & UK

Table 2 – Ireland & UK

Nº R	с	Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
1 Ir	eland & UK	Farmer service provider Munster AI group (IE), Bord Bia`s network of farmers (IE)	Code-Plus (IE), Ingenera (CH)	Munster AI group (IE), Teagasc (IE)
CCs	FIE	Basic technologies/services of	fered	Registered in SAH IP
<u>Code-Plu</u> (IE)	<u>1, 2</u>	Services: Web based application sittin databases. Web-based databases, windo and mobile apps to support busine management, requirements engineering, user interface design, code developmer consultancy and hosting. Software consul development services, software support farm auditing system. Quality System data the farm audit and certification process. "Sustainable Energy for the Rural Village Design of data flows and processing. Ap coded photography of habitats. Data formats. Design of interactive reports/audi Technologies: Data Storage, FMIS/Fa Prediction Technologies, Quality Asses Certification Platforms.	ws desktop applications ess processes. Project database development ht, testing, deployment ltancy services, softward services. Electronic bee abase application to track Tracking system for the Environment" (SERVE) p development for geo collation and reporting ts/CC. arm ERP, Modeling &	but without selecting organisation type (not as CC) Registered in FIE#1 FIE#2 has been registered without
<u>ICBF</u> (IE) 1	Services: Central database for animal relations breeding information services to the Irish of ICBF exists to benefit our farmers, the again wider communities through genetic gain. Technologies: Remote Sensing, Animal and Monitoring, Data Storage, Modeling &	dairy and beef industries gri-food industry and the Production Technologies	As CC, also
<u>Energy</u> <u>Monitoriu</u> <u>Ireland</u> (IE)	1 1 <u>1</u>	Services: Design, consult and install with energy monitoring. Energy Monitoring In- supplier to Teagasc for various monitoring beef, sheep and farm equipment efficiency Technologies: Energy Use Efficiency & Water Use Efficiency & Systems Technolog	eland was the preferred projects including dairy Systems Technologies	Not included as member in FIE#1
Teagasc (IE)	2	Services: Co-ordination, management and Technologies: Data Storage, Farm ERP, F GIS Technologies, Photogrammetry, Technologies, Machine Learning.		
FERS (IE	:) 2	Services: GIS and remote sensing for ecc habitat survey, vegetation classification. Technologies: Data Storage, Farm ERP, F GIS Technologies, Photogrammetry, Technologies, Machine Learning.	Remote Sensing, GPS and	FIE#2 has been registered without

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
TSSG, WIT (IE)	2	 Services: Machine learning for image processing. Data analysis of changes in habitat landscape. Technologies: Artificial Intelligence, Remote Sensing, Energy Use Efficiency & Systems Technologies, Water Use Efficiency & Systems Technologies, Animal Production Technologies and Monitoring, Biometric Sensing Technologies, Deep Learning Technologies, Sensing & Monitoring (Smart), Sensor Technology, Data Storage, Modeling & Prediction Technologies, Quality Assessment, Traceability & Certification Platforms. 	YES Registered as DIH, not as CC FIE#2 has been registered without entering its members

Scandinavia

Table 3 – Scandinavia

Nº	RC		Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
2	Scandir	navia	Knehtilä Farm (FI), Esa Similä's farm (FI) , Hedåkers Säteri AB (SE), Buhrenstjerna Farming AB (SE)	Suonentieto Ltd (FI), CrainSense Ltd (FI), Suomen Viljakauppa Ltd (FI), AGROINTELLI Ltd (DK), Knehtilä Farm (FI), Esa Similä's farm (FI), Smart Agritech Solutions Sweden AB (SE), Thorsen Teknik A/S (DK), Agro Intelligence Aps (DK), Danfoil A/S (DK), Gothia Redskab AB (SE)	Agro Business Park (DK), <u>Agroväst</u> <u>LIvsmedel AB</u> (SE), SEGES (DK), <u>Luke/Luke DIS (</u> FI)
CCs		FIE	Basic technologies/se	ervices offered	Registered in SAH IP
<u>Rise</u> ((SE)	3	test of technology and design Technologies: Data-driven Sensor Technology, Sensi	s of Sweden. Expert knowledge and demo experiments. Technologies, Precision Farming, ng & Monitoring (Smart), IPM ciency & Systems Technologies, Yield	NO FIE#3 has been registered without entering its members
	<u>sh</u> noloaic stitute	3, 4	machinery. Provider of field services in sensor technology experiments and test of p Knowledge in digital and visua Technologies: Precision Farr	ning, Sensor Technology, Sensing & hnologies, Energy Use Efficiency &	YES Example 1 Registered as CC and DIH FIE#3 has been registered without entering its members
<u>Aarhu</u> Unive ENG (ersity –	3	Machine-learning. Optimization	Technologies, Precision Farming,	YES FIE#3 has been registered without entering its members
	<u>S L&F</u> <u>mark)</u>	4	pig production, cattle product finance and economics, and c programs, specialist advis knowledge, field trials, compe- advisors.	e for knowledge on crop production, ion (meat and dairy), farm business organic production Services cover IT sory services, dissemination of etence building for farmers and farm ding a datahub between farm ers data, Precision ag FMIS.	YES Registered as CC, DIH and Knowledge institution / Research Community

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
			Registered as member in FIE#4, but not reported in progress report
<u>AgroVäst</u> (SE)	5	Services: CoDIH for Sweden, and link to Precision Farming Sweden network. Cross-border company relations, best practices, local connections and sharing of information. Technologies: Precision Farming, IPM Technologies, Energy Use Efficiency & Systems Technologies, Yield Monitors.	YES Registered as DIH, not as CC Registered as member in FIE#4 FIE#3 an FIE#5 have been registered without entering its members
Swedish University of Agricultural Sciences (SE)	4	Services: Knowledge effective methods for learning. Knowledge meat quality and production systems. Effective methods for learning and advisory services. Effective and sustainable production systems for meat production. Technologies: Precision Farming.	NO Not included as member in FIE#4 and FIE#3 has been registered without entering its members
<u>University of</u> <u>Skövde (SE)</u>	4	Services: Knowledge in serious gaming and human computer interaction. Technologies: Computer games, Virtual engineering, Augmented Reality (AR), Artificial Intelligence (AI), In Cab Displays/HMI, Remote Learning.	Not included as member in FIE#4 FIE#3 has been registered without entering its members
Magic Circle (SE)	4	Services: Knowledge in digital and visual communication. Technologies: Digital Commercialization Technologies.	NO Not included as member in FIE#4
Luke/Luke DIS Natural Resources Institute Finland - Production systems (FI)	5	 Services: (5) Orchestrator of data flows. ISOBUS expert. Standards. Business models. Local connections and sharing of information. Technologies: Precision/Smart Farming Technologies, Barcodes, QR-codes, Scanners and Smart Tags, Crop management, FMIS/Farm ERP, IPM Technologies, Quality Assessment, Logistics, Asset & Fleet Optimization (smart), Soil Sampling, Mapping & Management, Supply Chain Analytic. 	YES Registered as CC, DIH, Knowledge institution / Research Community Sector Organisation FIE#3 has been registered without entering its members
VTT Technical Research Centre of Finland	5	Services: Providing facilitation and virtual platform for co-creation activities between farmers and consumers.	NO FIE#5 reported this CC (which is not mentioned in Execution plan)

France

Table 4 – France

Nº	RC	Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
3	France	ACTA`s network of farmers (FR), TERRASOLIS` network of farmers (FR), Chamber of Agriculture Pays	ACTA Informatique (FR), ACTA ARVALIS (FR), Groupe Provence	Inf'Agri85 (FR), VEGEPOLYS (FR), DIGIFERMES (FR)

Nº RC		Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
		de la Loire (FR), Coop de France Alpes-Méditerrannée (FR)	Services (FR), APIAGRO (FR)	
CCs	FIE	Basic technologies/service	s offered	Registered in SAH IP
VEGEPOLYS VALLEY (FR)	6	Technologies, Irrigation/Fertigation C	iveness of the plant sector nt of innovative gement, Automatic Control ntrolled Traffic Farming, , DSS-Agricultural APPs, utomation (Smart), IPM control (Smart), Sensing & echnology, Optimization	YES Registered as CC and DIH FIE#6 has been registered without entering its members
<u>Images &</u> <u>Réseaux</u> (FR)	6	Services: Competence Centre on Innovation. It covers the key digital of agriculture (e.g. 5G networks & Io realities, cybersecurity). I&R will national (Digital Challenges funded European (FIWARE FI-C3 accelerator expertise in organizing the meetup technological and non-technological in to market follow up of these innovati Technologies: Artificial Intelligence Analytics, Communication & Senso Physical Systems (CPS) Tech Technologies, Energy Use Efficiency Hyper-spectral, IoT Devices & Conne Robotics, UAVs & Aerial Imagery.	technologies for the future T, data intelligence, mixed bring to the project its I via PIA programs) and management) recognized between needs and digital novations including the go ons. e (AI), Big Data & Data r Networks (5G), Cyber- nologies, Cybersecurity & Systems Technologies,	YES Registered as DIH, not as CC FIE#6 has been registered without entering its members
<u>CEA</u> (FR)	6	Services: Competence Centre in m provide access to agriculture s Technologies with its expertise in: Au systems, IoT device management (multispectral optical sensors and p physical, biological), Sensor fusion lab-on-chips for in field analysis intelligence and merging data, Decis processing, Cyber Physical Sys components and cryptography, Rob- Energy and embedded energy solution Technologies: Artificial Intelligence Analytics, Communication & Senson Physical Systems (CPS) Tech Technologies, Energy Use Efficiency Hyper-spectral, IoT Devices & Conner robotics, UAVs & Aerial Imagery.	sector to Key Enabling intenna and communication and middleware, Sensors hotonic sensors, chemical, platform, Microfluidics and , Algorithms to artificial ion support tools, Big data tems, Cybersecurity of otics and cobotics, Drone, in. e (AI), Big Data & Data r Networks (5G), Cyber- nologies, Cybersecurity & Systems Technologies,	YES Registered as DIH, not as CC FIE#6 has been registered without entering its members
Chambre d'Agriculture Pays de la Loire (FR)	6	Services: Identification of start-ups.		NO FIE#6 has been registered without entering its members
API-AGRO (FR)	7	Services: Conception of the web set API AGRO Data Platform to store and Technologies: Data Access & Author driven Technologies, DSS-Agricultu Data/Privacy/Security.	valorize AgDATA. ization Technologies, Data-	YES FIE#7 has been registered without entering its members

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
ACTA – ARVALIS (FR)	7, 8	Services: (7) Development of agronomic models and configuration of tools. (8) SYSTERRE multi-criteria evaluation tool owner.	YES
		Technologies: Cloud Technology, Communication & Sensor Networks (5G), Crop Management, Data-driven Technologies, DSS-Agricultural APPs, Farm IoT, FMIS/Farm ERP, IoT Devices & Connectivity, Modeling & Prediction Technologies, Predictive Analytics.	The matrix institution ACTA - French Agricultural Technical Institutes Network has been registered both as CC and as Knowledge Institution / Research Community
			Arvalis – Plant Institute is registered without selecting organization type
			FIEs#7 and #8 have been registered without entering its members
ACTA-Digital Services	7, 8	Services: (7) Development of web applications. (8) Interface and software developer with open-source technologies.	YES
		Technologies: Data-driven Technologies, DSS-Agricultural APPs, FMIS/Farm ERP, Sound Recognition Technologies.	The matrix institution ACTA - French Agricultural Technical Institutes Network has been registered both as CC and as Knowledge institution / Research Community FIEs#7 and #8 have been registered without entering its members

North West Europe

Table 5 – North West Europe

Nº	RC		Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
4	North West Europe	c	Geveral farmers, FarmhackNL community (NL) As a user: ZLTO (NL)	Van Mierlo Ingenieursbureau (NL), Draegerr (GE), Stienen (NL), Vervaeke (BE), Nutrition Sciences (BE), Syntesa (DK,ES), SoundTalks (BE), Dr. Hubert Gerhardy (DE), AVR (NL), Aurea Imaging (BE), Agridata-services BIOSCOPE (NL), Exobotic (BE), Robovision (BE)	Smart Digital Farming (BE), Flanders FOOD (BE), IMEC (BE), JoinData (NL), NPPL: National testbed precision Agr. (NL), E- Pieper (ePotato) (NL), Praktijkcentrum voor Precisielandbouw (NL) , VzF GmbH Erfolg mit Schwein (DE)
CCs		FIE	Basic technologies/s	ervices offered	Registered in SAH IP
ILVO	(BE)	9, 10, 12, 13	applications. Hyperspectral (10) Knowledge support. (12	e expertise. Precision farming imaging. Agronomic support 2) Expertise on smart precision ding. (13) Knowledge on gas	

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
		measurement and reduction techniques, testing in farm environment, livestock health & welfare. Technologies: Artificial Intelligence (AI), Autosteer/Controlled Traffic Farming, Autonomous Equipment, Autonomous Vehicles, Computer Vision, Crop Management, Deep Learning Technologies, GPS and GIS Technologies, Hyper-spectral, Machine Learning, Photogrammetry, Sensing & Monitoring (smart), Soil Sampling, Mapping & Management, UAVs & Aerial Imagery, Variable Rate Technology (VRT).	FIE#10 has been registered without entering its members
<u>Ugent</u> (BE) Ghent University	9	Services: (9) Research on site specific weed detection. Technologies: Autosteer/Controlled Traffic Farming, Autonomous Equipment, Autonomous Vehicles, Computer Vision, Crop Management, Deep Learning Technologies, Soil Sampling, Mapping & Management, Variable Rate Technology (VRT).	YES It is registered as Ghent University - Plants & Crops Not included as member in FIE#9
<u>IMEC</u> vzw (BE)	9, 13	 Services: (9) Hyperspectral hardware. Technical support and if a TRL level increase is needed on the 'camera', IMEC can provide camera hardware variations optimized to the specific application and additional calibration, together with the support. (13) Knowledge on data processing techniques (subcontracted by ILVO). Technologies: Artificial Intelligence, Autosteer/Controlled Traffic Farming, Autonomous Equipment, Autonomous Vehicles, Computer Vision, Crop Management, Deep Learning Technologies, GPS and GIS Technologies, Hyper- spectral, Machine Learning, Photogrammetry, Sensing & Monitoring (Smart), Soil Sampling, Mapping & Management, UAVs & Aerial Imagery, Variable Rate Technology (VRT). 	YES Registered as CC, DIH, IoT Technology Provider, Knowledge institution / Research Community
Innovation Support Center for Agricultural & Rural Development (BE)	9	Services: Representative of farmers providing training, dissemination, and communication to farmers.	NO Not included as member in FIE#9
<u>WUR</u> (NL)	10	Services: Knowledge support. Technologies: GPS and GIS Technologies, Remote Sensing, Satellite Imagery & Nano-satellites, UAVs & Aerial Imagery, Big Data & Data Analytic, Cloud Technology, Data Access & Authorization Technologies, Data-driven Technologies, Data Storage (databases, data warehouses, data lakes) and Persistence, Synchronization and Data Standardization, Modeling & Prediction Technologies, Sensing & Monitoring (Smart), Soil Sampling, Mapping & Management.	YES FIE#10 has been registered without entering its members
<u>VzF e.V</u> . (DE)	11	Services: Farmers' association and consultancy on sensor technology. Technologies: Sensing & Monitoring (Smart), Sensor Technology.	NO/YES Example 1 Example 2 Registered only as DIH (WP5 does not considers it as CC) Not included as member in FIE#11
<u>Mitteldeutsche</u> <u>Agentur für</u> <u>Informationsser</u> <u>vice GmbH</u> <u>MAIS</u> (DE)	11	Services: Technology provider (data platform). Technologies: Big Data & Data Analytic.	YES Vot included as member in FIE#11

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
<u>Landwirtsch</u> <u>aftskammer</u> <u>Niedersachsen</u> (DE)	11	Services: Swine health service. Technologies: Animal Production Technologies and Monitoring, Biometric Sensing Technologies, Data-driven Technologies, Food Security Technologies, Indoor Farming, Sensing & Monitoring (Smart), Sensor Technology, Precision Livestock Farming, Digital Health Technologies.	NO Not included as member in FIE#11
<u>innoSEP GmbH</u> (DE)	11	Services: Development of prediction models. Data analytics provider. Technologies: Animal Production Technologies and Monitoring, HPC (High Performance Computing), Data-driven Technologies, Modeling & Prediction Technologies, Precision Livestock Farming.	YES
<u>Hooibeekhoeve</u> (BE)	13	 Services: Knowledge on reduction techniques in dairy, testing in farm environment. Implementation in practical dairy management. Technologies: Animal Production Technologies and Monitoring, Automatic Control (Smart Automation), Energy Use Efficiency & Systems Technologies, Climate Control, Climate Sensors, Data-driven Technologies, Farm Management Information System, Indoor Farming, IoT Devices & Connectivity, Sensing & Monitoring (Smart), Sensor Technology, Precision Livestock Farming. 	YES Registered as Knowledge institution / Research Community Competence Centre Local/regional Government

Central Europe

Table 6 – Central Europe

Nº	RC		Farmers/Farmers' organizations	Tech SMEs/Othe	r	DIHs
5	Central Europe		Austrian Viniculture Association (AT), Pilot Farms (AT)	Farmdok (AT), CFS Cro Farm Solution GmbH (A DI (FH) Hubert Schrenk Ingenieurbüro für Elektrotechnik (Smartmotions) (AT), INDAT Modellbau Formenbau Werkzeugb GmbH	ΑΤ), <	Platform "Digitalization in Agriculture" of Federal Ministry of Agriculture (AT), ecoplus Niederösterreichs Wirtschaftsa gentur GmbH (AT)
CCs		FIE	Basic technologies/se	rvices offered	Regi	stered in SAH IP
<u>HBLF</u> <u>Franc</u> <u>Josep</u> (AT)	_	Sco inum15Technologies: Computer Vision, Synthetic Aperture Radar, Robotics, Sensing & Monitoring (Smart), Autosteer/Controlled Traffic Farming, Autonomous Equipment, Autonomous Vehicles, GPS and GIS Technologies, Optimization (H&S) Technologies.Registered with organisation type FIE#14 and #11 registered with		NO/ YES without selecting anisation type (not as CC) #14 and #15 have been gistered without entering their members		

North East Europe

Table 7 – North East Europe

Nº	RC	Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
6	North East Europe	Several farmers (PL), WODR (PL), GAŁOPOL Spółka z o.o. w, SunGIS (LV), Bee keepers Farm Lielvaiceni (LV), Farm Vilcini1 (LV)	Baltic Open Solution Centre (LV), Lesprojekt služby (CZ), MeteoBlue (CH), Meža Bite, Ltd (LV),	Agriculture Digital Innovation Hub Poland (DIH Agro Poland) (PL), HUB4Agri (PT),

Nº RC		Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
			FreedomGrow (PT), IF-ONE sp. z o.o. (PL) AgriWatch B.V (NL), Netictech (PL)	Farmers Parliament , Latvia (LV), WirelessInfo (CZ)
CCs	FIE	Basic technologies/services	offered	Registered in SAH IP
Cybernetic Technologies NETICTECH SA (PL)	16	Services: Implementation of analytic drones. IT technologies provider. Technologies: Information Technolog UAVs & Aerial Imagery, Big Data & driven Technologies, IoT Devices & Co Monitoring (smart).	jies (IT), Dashboards, Data Analytic, Data-	YES imported by the selecting organisation type (not as CC) FIE#16 has been registered without entering its members
<u>PSNC Poznan</u> <u>Supercomputi</u> <u>ng and</u> <u>Networking</u> <u>Center</u>	16	Services: Provision of infrastructure and computing. Technologies: HPC (High Perfor Artificial Intelligence (AI), Deep Le Machine Learning, Sensing & Monitor Aerial Imagery, Cloud Technology Authorization Technologies, Data-drive Storage (databases, data warehous Persistence, Synchronization and Data Agricultural APPs, IoT Devices & Con Technologies (IT).	mance Computing), arning Technologies, ring (Smart), UAVs & y, Data Access & en Technologies, Data es, data lakes) and Standardization, DSS-	YES without selecting organisation type (not as CC) FIE#16 has been registered without entering its members
<u>District</u> <u>Chemical and</u> <u>Agricultural</u> <u>Station in</u> <u>Poznań</u> (PL)	16	Services: Soil tests services provider Technologies: Soil Sampling, Mappin Sensors.		NO FIE#16 has been registered without entering its members
<u>Wielkopolska</u> <u>Aqricultural</u> <u>Advisory</u> <u>Centre in</u> <u>Poznan</u> <u>(WODR)</u> (PL)	16, 17	Services: Agriculture advisory services services), with activities like: i) demonstration farms contact; ii) suppor farmers, advisory bodies, research un food sector and other entities supportin of innovations in agriculture and rural exchange of expertise and good pract the creation of groups for innovation projects. Technologies: DSS-Agricultural A stations, Data-driven Technologies, Control (Smart), Precision Farming, Se & Management, Yield Monitors.	regional network of orting contact between its, SME's in the agri- ng the implementation areas; iii) supporting ices; iv) assistance in and development of APPs, Meteorological Irrigation/Fertigation	YES FIE#16 has been registered without entering its members Not included as member in FIE#17
Poznan University of Life Sciences (PULS)	17	Services: Soil and yield data provider Technologies: Sensing & Monito Management, Soil Sampling, Mapping & Aerial Imagery, Variable Rate Tec Agricultural APPs, Data-driv Irrigation/Fertigation Control (Smart) Yield Monitors.	ring (Smart), Crop & Management, UAVs hnology (VRT), DSS- en Technologies,	YES Registered as CC, Knowledge Institution & Research Community Leader of FIE#17
<u>PIMR</u> (PL) Lukasiewicz Research Network - Industrial Institute of Agricultural	18	Services: Department of Testing and Cultivation and Crops Harvest. Technologies: Artificial Intelligence (/ (Smart Automation), Big Data & Da Control, Climate Sensors, Crop Mana Technologies, Data Storage (databas data lakes) and Persistence, Synch Standardization, DSS-Agricultural Efficiency & Systems Technologie	AI), Automatic Control ta Analytics, Climate agement, Data-driven es, data warehouses, pronization and Data APPs, Energy Use	YES Without selecting organisation type (not as CC)

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
Engineering (L-PIMR)		Greenhouse Automation (Smart), HPC (High Performance Computing), IoT Devices & Connectivity, Irrigation/Fertigation Control (Smart), Precision/Smart Farming Technologies, Robotics, Sensing & Monitoring (Smart), Sensor Technology, Soil Sensors, Water Use Efficiency & Systems Technologies.	FIE#18 has been registered without entering its members
FreedomGrow (PT)	18	Although it is from Portugal, it is reported in the RC Central Europe Progress Report	NO FIE#18 has been registered without entering its members
WirelessInfo (CZ) Also belongs to Central Europe Regional Cluster	19, 20	 Services: Advisory services and offering part of infrastructure. (19) Support for SensLog on DIH. (20) FOODIE data model Czech DIH. Technologies: Climate Sensors, Communication & Sensor Networks (5G), Crop Management, Dashboards, Data-driven Technologies, Data Storage (databases, data warehouses, data lakes) and Persistence, Synchronization and Data Standardization, DSS-Agricultural APPs, Farm IoT, FMIS/Farm ERP, In Field Wireless, IoT Devices & Connectivity, Irrigation/Fertigation Control (Smart), Precision/Smart Farming Technologies, Sensing & Monitoring (Smart), Sensor Technology, Soil Sampling, Mapping & Management, Water Use Efficiency & Systems Technologies. 	YES Example 2 Files and #20 have been registered without entering its members
Zemgale Region Human Resource and Competences Development Centre (LV)	19, 20	 Services: Municipal educational institution. It offers and provides lifelong education for each inhabitant of Jelgava city and Zemgale region. Technologies: Advanced Manufacturing Technologies, Computer Vision, Digital Commercialization Technologies. 	NO FIEs#19 and #20 have been registered without entering its members
Technology Park (LV) Ventspils High Technology Park (VHTP)	19, 20	Services: Information and dissemination to foster innovations in agriculture ICT. Technologies: Technology Park containing companies.	NO FIEs#19 and #20 have been registered without entering its members

Iberia

Table 8 – Iberia

Nº	RC	Farmers/ Farmers' organizations	Tech SMEs/Other	DIHs
7	Iberia	FENACORE (ES), ABOVIGIA (PT)	TEKEVER AS (PT), EC2CE (ES), Monet (ES), Hispatec (ES), EDIA (PT), UNPARALLEL (PT), 3eData (ES), SERAGRO (ES), ALLTECH Spain (ES), ELMEGA (ES), MONET TECNOLOGIA E INNOVACIÓN (ES)	FARM2030 (PT), COTR (PT), Andalusia Agrotech DIH (ES), DIH for the Galician (ES), GRAD (ES)
CCs	ETE	Basic technologies/	services offered	Registered in

CCs	FIE	Basic technologies/services offered	SAH IP
INIAV (PT)	21	Services: Pests and diseases identification and characterization in Portugal.	NO FIE#21 has been
		Technologies: Artificial Intelligence (AI), Computer Vision, Crop Management, GPS and GIS Technologies, Hyper-spectral, Machine Learning, Photogrammetry, Predictive Analytics, Prescriptions, Remote Sensing, Satellite Imagery & Nano-satellites, Soil Sampling, Mapping & Management, Synthetic Aperture Radar,	registered without entering its members

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
		UAVs & Aerial Imagery, Sensor Technology, Variable Rate Technology (VRT), Yield Monitors.	
<u>AGACAL</u> (ES)	21 23	 Services: (21) AGACAL-EVEGA Pests and diseases identification and characterization in Spain. Vineyard specialty. (23) AGACAL- CIAM Reference center in research, innovation and transfer in agriculture, livestock and agri-food industry. Test of technology and design demo experiments. Technologies: (21) Crop Management, Soil Sampling, Mapping & Management, Synthetic Aperture Radar, UAVs & Aerial Imagery, Sensor Technology, Variable Rate Technology (VRT), Yield Moni- tors. (23) Crop Management, Soil Sampling, Mapping & Manage- ment, Crop Evaluation and Management, Genetic and Nutritional Improvement of agricultural species, Techniques for the analysis of raw materials and food, Fertilization, Slurry Management, Nu- tritional Evaluation of Forages, Nutrient Cycle, Evaluation of New Technologies, Design of Good Farming Practices, Food Safety, Pro- duction Monitoring, Food Efficiency, Precision Feeding, Livestock Production. 	NO FIEs#21 and #23 have been registered without entering their members
<u>UMA</u> /UMA- BIGDATA-CC (subcontrac)	21	Services: Competence Centre on digital technologies and Innovation. It covers the key digital technologies for the future of agriculture (e.g. Big Data processing and analysis, artificial intelligence, IoT, open data, standards, On-Cloud/On-premise computing). UMA-BIGDATA-CC will bring its national (Digital Challenges funded via PAIDI and TIN programs) and European projects recognized expertise in organizing the meetup between needs and digital technological and non-technological innovations. Technologies: Big Data Analytics/Processing, Predictive/Descriptive/ Prescriptive Analytics, Advanced Decision Support and Visualization, Semantic Web, Open Data and Data Standards, Data Repositories, Ontologies and Vocabularies, Software Service and API Deployment, On-cloud/On-premise Computing, Open Stack Service Providers, Large Scale Image Processing, Gene Expression Processing.	NO FIE#21 has been registered without entering its members
<u>UCO</u> (ES) (subcontract)	21	Services: Multi-hazard maps of potential incidence of plagues and diseases. Technologies: Computer Vision, Crop Management, GPS and GIS Technologies, Hyper-spectral, Photogrammetry, Prescriptions,	NO FIE#21 has been registered without entering its
		Remote Sensing, Satellite Imagery & Nano-satellites, Soil Sampling, Mapping & Management, Synthetic Aperture Radar, UAVs & Aerial Imagery, Sensor Technology, Variable Rate Technology (VRT), Yield Monitors.	members
<u>IFAPA</u> (ES)	22	Services: Irrigation management models and irrigation supporting technology/data for Spain. Technologies: Automatic Control (Smart Automation), Climate Sensors, Communication & Sensors Networks (5G), In Field Wireless, Open SCADA, Crop Management, Data-driven Technologies, IoT Devices & Connectivity, Irrigation/Fertigation Control (Smart), Sensing & Monitoring (Smart), Soil Sampling, Mapping & Management, Water Trading Technologies, Water Use Efficiency & Systems Technologies, Satellite & UAV Imagery, Analytical Models: Segmentation/Prediction/Prescription/Weather Forecast, Deficit Irrigation Strategy & Operation Control.	YES FIE#22 has only registered Hispatec as member
UNPARALLEL (PT)	22	 Services: Leadership. Best practices and research on IoT technologies for supporting irrigated agriculture. Technologies: Automatic Control (Smart Automation), Climate Sensors, Communication & Sensors Networks (5G), In Field Wireless, Open SCADA, Crop Management, Data-driven Technologies, IoT Devices & Connectivity, Irrigation/Fertigation Control (Smart), Sensing & Monitoring (Smart), Soil Sampling, Mapping & Management, Water Trading Technologies, Water Use Efficiency & Systems Technologies. 	NO FIE#22 has only registered Hispatec as member (Unparallel is considered by WP5 as technology provider)
<u>USC</u> (ES)	23	Services: Agriculture and technology research. Demonstration facilities. Innovation and technology and know-how transference. Research expertise in Animal Production and Vegetable Production and Agriculture (milk, meat, crops), regarding animal health and	NO FIE#23 has been registered without

CCs	FIE	Basic technologies/services offered	Registered in SAH IP
		welfare. Sustainability and Climate Change mitigation and adaptation. Technologies: Animal Production Technologies & Monitoring, Automatic Control (Smart Automation), Biometric Sensing Technologies, Climate Sensors, Computer Vision, Data-driven Technologies, DSS-Agricultural APPs, Energy Use Efficiency & Systems Technologies, Food Security Technologies, Modeling & Prediction Technologies, Precision Livestock Farming, Predictive Analytics, Remote Sensing, Satellite Imagery & Nano-satellites, Sensor Technology, Soil Sampling, Mapping & Management, UAVs & Aerial Imagery.	entering its members
GRADIANT Galician Research and Development Center in Advanced Telecommunic ations (ES)	23	 Services: ICT technology scouting, technology watch; ICT expertise in development, implementation; ICT research expertise and know-how; Training and knowledge transfer related to ICT technology. Technologies: Animal Production Technologies & Monitoring, Big Data & Data Analytics, Biometric Sensing Technologies, Cloud Technology, Communication & Sensors Networks. Data-driven Technologies, IoT Devices & Connectivity, Ownership of Data/Privacy/Security; Precision Mapping & Management, UAVs & Aerial Imagery. 	YES weighted as CC, IoT Technology Provider and as Knowledge institution / Research Community FIE#23 has been registered without entering its members

Italy & Malta

Table 9 – Italy & Malta

Nº	RC	Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
8	Italy & Malta	Several farmers (IT)	DnaPhone (IT), Casella s.r.l. (IT), V-SAFE (IT), CFP C.E.S.T.A. (IT)	Clust-ER Agrifood (IT)
CCs	FIE	Basic technologies/services o	ffered	Registered in

CCS	FIC	basic technologies/services onered	SAH IP
University of Ferrara (IT) University of Ferrara - Department of Chemistry and Pharmaceutic al Science Terra & Acquatech Lab	24	 Services: Technology provider/Chemistry and Pharmaceutical Sciences. Technologies: Animal Production Technologies & Monitoring, Automatic Control (Smart Automation), Biometric Sensing Technologies, Computer Vision, Energy Use Efficiency & Systems Technologies, Communication & Sensors Networks (5G), Datadriven Technologies, IoT Devices and Connectivity, In Field Wireless, Precision/Smart Farming Technologies, Optical Technologies, Quality Assessment, Sensor Technology. 	YES FIE#24 has been registered without entering its members
<u>UCSC-CRAST</u> (IT)	25	Services: Grapevine physiology and vineyard management, precision viticulture with special emphasis on studying intra-parcel vineyard variability using both remote and proximal sensing methods and variable rate approaches. Technologies: Climate Sensors, Computer Vision, Crop Management, GPS and GIS Technologies, Hyper-spectral, Irrigation/Fertigation Control (Smart), Optical Technologies, Plant Data, Sensor Technology, Soil Sampling.	YES

South East Europe

Table 10 – South East Europe

Nº	RC		Farmers/Farmers' organizations	Tech SMEs/Other	DIHs
9	South Ea Europe	st	(GR), FederatiaResearch and DevelopmentmCrescatorilor de Bovine dinInternational SRL (RO), CaisleyBi		Gaiasense (GR), mAgro (RO), BioSense Institute (SRB)
CCs		FIE	Basic technologies/	services offered	
Agric Unive Ather Natur Reso Mana and Agric	ral	26	Irrigation/Fertigation Con Optimization (S&H) Precision/Smart Farming Te Imagery & Nano-satellites, Sampling, Mapping & Mana	Sensors, Computer Vision, Crop n Technologies, GPS and GIS ral, IoT Devices & Connectivity trol (Smart), Moisture Sensors Technologies, Photogrammetry echnologies, Remote Sensing, Satellite Sensing & Monitoring (Smart), Soi agement, Soil Sensors, Traceability & AVs & Aerial Imagery, Water Use	Registered as CC and as Knowledge institution / Research Community
<u>IQ</u> Mana SRL (<u>gement</u> (RO)	27	Services: Animal identification, procedures and databases. Technologies: Cloud Technology, Data-driven Technologies, Data Storage (databases, data warehouses, data lakes) and Persistence, Synchronization and Data Standardization. Digital Commercialization Technologies, FMIS/Farm ERP, Labor Control.		registered without
Deve	<u>tRDI</u> arch and lopment national	27	Services: CC for IoT/mobile computing. Technologies: Cloud Technology, Data Storage (databases, data warehouses, data lakes) and Persistence, Synchronization and Data Standardization.		
<u>Mega</u> Limit	<u>ibyte</u> <u>ed</u> (MT)	27	warehouses, data lakes) a	nology, Data Storage (databases, data and Persistence, Synchronization and gh Performance Computing (HPC)	registered without

3.2 CATALOGUE OF COMPETENCE CENTRES BELONGING TO SAH DIH CATALOGUE

RC1. Regional Cluster 1 – Ireland & UK

Table 11 – CCs belonging to SAH DIH Catalogue – Ireland & UK

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
1.1. Agricultural Engineering Precision Innovation Centre Agri-EPI Centre [arable, fruits, greenhouses, dairy, vegetables]	http://www.aqri-epicentre.com/ 6 member organizations. 5 facilities. (YES)	Agri-EPI Centre Midlands Agri-Tech Innovation Hub (DIH, CC, NGO) – The Midlands Dairy Research Centre-Harper Adams University (RC Progress Report) Agri-EPI Centre South West Dairy Development Centre (DIH, CC, NGO) Agri-EPI Centre Southern Hub (DIH, CC, NGO) – Cranfield University , CHAP (RC Progress Report) Agri-EPI Centre - Satellite Farm Network (DIH, NGO, not CC) Agri-EPI Centre - Northern Hub – Edinburgh (DIH, CC, NGO, Knowledge Institution/Research Community) - CIEL (Centre for Innovation Excellence in Livestock and the University of Edinburgh (RC Progress Report)	YES YES YES YES YES
1.2. Agri-Tech [arable, poultry, dairy, vegetables]	https://www.agritech- east.co.uk/ Cluster organization. 135 member organizations. (YES)	Not defined	CCs have not been registered in the SAH IP
1.3. Agrinet [dairy, organic]	https://www.agrinet.ie/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.4. Bristol Robotics Laboratory [arable, fruits, greenhouses, vegetables]	http://www.brl.ac.uk/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.5. Dairy Processing Technology Centre DPTC [dairy]	https://dptc.ie/ Number of member organizations: 17 (UCC, UL, NUIG, Teagasc, DIT, DCU, ITT Dublin, UCD, TCD, Aurivo, Kerry, Dairygold, Lakeland Dairies, Carbery, Arrabawn Co- op, Tipperary Co-op, Glanbia).	Not defined	CCs have not been registered in the SAH IP
1.6. Institute of Technology Tralee	http://www.ittralee.ie/en/	Institute of Technology Tralee http://www.ittralee.ie/en/	YES but as DIH, not as CC

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
ITT [arable, poultry, dairy, piggery]	Number of member organizations: The Centre for Intelligent Mechatronics and RFID (IMaR), Agritech Centre of Excellence (ACE), Shannon Applied Biotechnology Centre (SABC), The Centre for Entrepreneurship and Enterprise Development (CEED) and School of Science Technology Engineering and Mathematics at IT Tralee.	Munster Technological University: <u>https://www.mtu.ie/</u>	CCs have not been registered in the SAH IP
1.7. RUC-APS [arable, fruits, poultry, greenhouses, vegetables, organic horticulture]	https://ruc-aps.eu/ (EU project) 16 member organizations. (YES)	Not defined	CCs have not been registered in the SAH IP
1.8. Teagasc Agriculture and Food Development Authority [arable, dairy, piggery, beef]	https://www.teaqasc.ie/ Number of member organizations: 14. (YES)	https://www.teagasc.ie/education/ed ucation-partners/	CCs have not been registered in the SAH IP
1.9. The Centre for Process Innovation [arable, fruits, greenhouses, dairy, vegetables]	https://www.uk-cpi.com/ (YES)	ICBF (registered in portal as CC)	YES Also registered as sector organisation
		Code-Plus (RC Progress Report)	YES But without selecting organisation type (not as CC)
		Energy monitoring Ireland (RC Progress Report) Biondi Engineering (RC Progress Report)	The rest of CCs have not been registered in the SAH IP
1.10. Transport Systems Catapult [arable, fruits, dairy, vegetables]	https://ts.catapult.org.uk/ (YES)	https://ts.catapult.org.uk/academic- engagement/academic-partners/	CCs have not been registered in the SAH IP
1.11. UCD AgroCycle-Digital based at UCD School of	http://www.ucd.ie http://www.agrocycle.eu/ Number of member organizations: 26 from across EU; 5 in Ireland.	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
Biosystems Engineering [arable farming, poultry, vegetables]	(YES)		
1.12. Waterford Institute of Technology WIT [arable, dairy, beef]	https://www.wit.ie/ Number of member organizations: 4: RIKON (Business Modelling), TSSG (ICT Research Group), Start-Up support (Accelerator and Start- up support programme). (YES)	RIKON - Waterford Institute of Technology Business Consultancy and Applied Research https://www.rikon.ie/	YES
1.13. Agri- Innovation Hub IRELAND – Advancing Solutions in Agri- tech (TEAGASC) [arable, dairy, beef]	(YES)	Not defined	CCs have not been registered in the SAH IP
1.14. Precision Agriculture Centre of Excellence [dairy, beef]	https://www.tssq.org/ Number of member organizations: 5: TSSG (ICT Research Group), Glanbia (Agro- Food Processor), Alltech (Nutrition Innovation Company), Capita Business Solutions (Business Solutions for Agriculture), Kilkenny County Council (Local Authority) and Dawn Meats (Agro-Food Processor).	Not defined	CCs have not been registered in the SAH IP
1.15. Farm 491 [Arable, Fruits, Greenhouses, vegetables] (RC Progress Report)	https://www.farm491.com (YES)	Royal Agricultural University (RAU)	CCs have not been registered in the SAH IP
1.16. UNIVERSITY OF STRATHCLYDE TECHNOLOGY AND INNOVATION CENTRE (USTRATH) [Arable, dairy, Greenhouses] (RC Progress Report)	https://www.strath.ac.uk/	University of Strathclyde	CCs have not been registered in the SAH IP
1.17 Innovative Farmers	<u>https://www.innovativefarmers.</u> org	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
[arable, fruits, greenhouses, poultry, vegetables, etc.] (RC Progress Report)	(NO)		
1.18. Innovation for Agriculture (IfA) (RC Progress Report)	https://http//www.i4agri.org.uk (YES)	University College AgriEPI Centre - Harper Adams University CHAP (reg in portal as CC) Royal Agricultural University Hartpury University of Bristol University of Reading Agrimetrics	YES boost of CCs have not been registered in the SAH IP
1.19. AgriTech Centre of Excellence (ACE) (RC Progress Report)	https://aqritechexcellence.com/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.20. VistaMilk [dairy] (RC Progress Report)	https://vistamilk.ie/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.21. The Food Hub [Dairy, added value] (RC Progress Report)	http://thefoodhub.com/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.22. MiCRA Biodiagnostics Technology Gateway [Dairy, Agrianalytical services, Environmental] (RC Progress Report)	http://micra.ie/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.23. ICT- BIOCHAIN [Dairy, vegetables, Piggery, Poultry, organic, etc.] (RC Progress Report)	http://www.bioeconomyfoundat ion.com/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.24 Bia Innovator Campus CLG [Dairy, vegetables, Piggery, Organic, Meat, etc.] (RC Progress Report)	http://biainnovatorcampus.ie/ (YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
1.25. Centre for Advanced Photonics and Process Analysis (CAPPA) [Dairy, Fruit, Organic] (RC Progress Report)	https://www.cappa.ie/ (YES)	Not defined	CCs have not been registered in the SAH IP
1.26. Irish Food Tech [Any food business] (RC Progress Report)	https://www.technologygatewa y.ie (YES)	Cluster which consists of: PMBRC Technology Gateway (Waterford Institute of Technology) MET Technology Gateway (Galway- Mayo Institute of Technology)	YES VES But without selecting organisation type (not as CC)
		MiCRA Technology Gateway (TU Dublin – Tallaght Campus) (DIH)	YES As a DIH (not as CC)
		APT Technology Gateway (Athlone Institute of Technology) CAPPA Technology Gateway (Cork Institute of Technology) Design+ Technology Gateway (Institute of Technology Carlow) Shannon ABC Technology Gateway (Institute of Technology Tralee and Limerick Institute of Technology)	have not been registered in the SAH IP, some as DIH
1.27. Dingle Creativity and Innovation Hub [Dairy] (RC Progress Report)	https://dinglehub.com/	Not defined	CCs have not been registered in the SAH IP

RC2. Regional Cluster 2 – Scandinavia

Table 12 – CCs belonging to SAH DIH Catalogue – Scandinavia

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
2.1. Agro Business Park A/S ABP	https://www.agropark.dk/ Number of member organizations: +2000 users (YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
2.2. AGROVÄST LIVSMEDEL LTD [arable, greenhouses, dairy, vegetables]	http://agrovast.se/ Number of member organizations: AgrovästLivsmedel Ltd is owned by a non- profit-organisation with 18 members such as regional authorities, universities, farmers associations, SMEs, large enterprises and cooperatives within agriculture, food production and advisory services. The members represent the whole chain from field to fork. Participating cooperatives is owned by 25000 farmers.	Not defined	CCs have not been registered in the SAH IP
2.3. <u>Luke/Luke DIS</u> Natural Resources Institute Finland - Production systems (FI)	https://www.luke.fi/en/ Number of member organizations: Publicly available to all, Luke has basic funding from the government. Steering group/board consisting of representatives of DIH actors will be established.	Luke/Luke DIS ISOBUS Laboratory (belongs to LUKE)	YES Registered as CC, DIH, Knowledge institution / Research Community, Sector Organisation
2.4. Danish Food and Agricultural Council, SEGES [arable, dairy, piggery, organic, business economics]	https://www.seges.dk/ Number of member organizations: 40 Danish farmers unions 300 agricultural companies divided on 17 agricultural business areas. (YES)	YES Registered as Digital Innovation Hub Competence Centre and Knowledge institution / Research Community	
2.5. Robocoast (RC Progress Report)	https://robocoast.eu/ >10 member organizations (NO)	Not defined	CCs have not been registered in the SAH IP

RC3. Regional Cluster 3 – France

Table 13 – CCs belonging to SAH DIH Catalogue - France

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
3.1. AGRETIC® [arable, poultry, greenhouses, dairy, vegetables, piggery, organic]	http://www.bdi.fr/fr/pr ojets/numerique-agri- agro/ Number of member organizations: 4 core partners and more than	Valorial competitiveness cluster support com- panies in the setting up of collaborative pro- jects on food: <u>https://www.clustercollaboration.eu/cluster-or-</u> <u>ganisations/valorial</u>	YES but as DIH, not as CC
	20 associated partners.	Vegepolys competiveness cluster support companies in the setting up of collaborative projects on agriculture sector: <u>https://www.vegepolys.eu/en/</u>	YES Registered as CC and DIH
		CEA TECH : <u>http://www.cea-tech.fr</u> (RC Progress Report)	The matrix institution is

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		Inf'Agri85 <u>http://infagri85.fr/</u> (RC Progress Report)	registered as DIH, not as CC YES but as DIH, not as CC
		Chambre d'Agriculture des Pays de la Loire https://pays-de-la-loire.chambres-agriculture.fr/ (RC Progress Report) Agriculture Chamber of Brittany and its ex- perimental stations: http://www.bretagne.syn- agri.com/ ACT FOOD Bretagne, technical centers feder- ation, supporting companies on food process, seaweeds, sea products, animal production, vegetal production: https://www.actfood.fr/ Pôle Cristal, technical center supporting the implementation of refrigeration technologies for the industry: http://www.pole-cristal.fr/ Photonics Bretagne, cluster on Photonic tech- nologies, with experimentation capacities: https://www.photonics-bretagne.com/fr/ac- cueil/ Institut Maupertuis, technical center on me- canisation for the industry: http://www.insti- tutmaupertuis.fr/ Institut Carnot Agrifood Transition, consor- tium of technical centers and research units dedicated to food and agriculture in an inte- grated one health approach: https://www.agri- food-transition.fr/ Bretagne Développement Innovation sup- port the food companies in the implementation of new technologies: http://www.bdi.fr/fr/ac- cueil/ CEA Tech Quimper, research center dedicated to applied technologies. IRSTEA, research institute with a unit in Rennes doing applied research on food technol- ogy and waste management: https://www.irstea.fr/fr/irstea/nos-cen- tres/rennes CATE and Terres d'essais experimental sta- tion support the Cerafel producers in providing technical solution for the vegetable producers: https://www.istation-cate.fr/ https://www.ter- redessais.fr/ Universities: Rennes 1, UBO, UBS and their technological platforms and living labs: COMPOSITIC technological platform (IRDL University Lab): http://www.compositic.fr/ MobBI: Systèmes Embarqués pour la Mobilité et les Bâtiments Intelligents: https://mobbi.univ-rennes1.fr/ Nano technical platform is dedicated to mi- cro-nanotechnologies:	not as CC interest of CCs have not been registered in the SAH IP
		GenOuest: Plateforme de bio-informatique de Rennes: https://www.genouest.org/ Effipole: Pôle Lorientais Efficacité énergétique: http://irdl.fr/index.php/effipole-lorient/ Prodiabio Technology Transfer Platform (PFT) for industrial maintenance and automa- tion; Food and culinary engineering; bio-	

DIH	URL (registered as DIH) 🕮	Associated CCs [TBC]	Registered in SAH IP
		process engineering (chemistry, biochemistry, microbiology): https://www.pft-prodiabio.com/ PRISM: Plateforme de Recherche en imagerie et spectroscopie multi-modales: http://prism.irstea.fr/ CRMPO: Centre Régional de Mesures Physiques de l'Ouest specialised in the determination of bi- ological compound, food included: https://scanmat.univ-rennes1.fr/la-plate- forme-crmpo EQUASA- Etudes en Qualité et Sécurité des Ali- ments: www.univ-brest.fr/esiab/menu/Recherche/Re- cherche et developpement BIODIMAR- purification and characterization of marine biomolecules: http://www.univ-brest.fr/BIODIMAR INRA/Agrocampus Ouest research units works on several agricultural subjects related to animal production (porc, milk, eggs), vegetal production and environmental issues: https://www6.rennes.inra.fr/ese/Agrocampus- Ouest	
3.2. Chambre d'Agriculture des Pays de la Loire CAPDL [arable, fruits, poultry, vineyard, dairy, piggery, organic, seed production, medicinal and aromatics, urban farming]	https://pays-de-la- loire.chambres- agriculture.fr/ Number of member organizations: 1. (NO)	Not defined	CCs have not been registered in the SAH IP
3.3. Commissariat à l'Energie Atomique CEA [arable, fruits, greenhouse, slaughterhouse, dairy, vegetables, piggery, organic, urban farming]	https://www.connaiss ancedesenergies.org/ Number of member organizations: 10 research centres and 6 regional technological platforms (France).	CEA-LIST, CEA-LETI, CEA-LITEN: <u>https://www.cea-tech.fr/</u> CTREG (6 regional technological platforms) Particularly, CTREG-DGDO is the technological platform based in Pays de la Loire with a representative unit in Brittany, specialized in agriculture and agrifood value chain.	The matrix institution is registered
3.4. Centre Technique de la Conservation des Produits Agricoles CTCPA [fruits, vegetables, organic]	https://www.ctcpa.org/ (YES)	Not defined, probably the organisation itself is a CC	YES Registered as DIH, not as CC

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
3.5. DIGIFERMES® [arable, vineyard, dairy, organic, seed production]	https://www.arvalisinst itutduvegetal.fr Number of member organizations: 12. (YES)	Arvalis Institut du végétal: https://www.arvalis-infos.fr/index.html	YES But without selecting organisation type (not as CC)
		Terrasolis: <u>http://terrasolis.fr/</u>	YES registered as DIH and CC
		ACTA: http://www.acta.asso.fr/ CREAS: https://www.arvalisinstitutduvegetal.fr/inaugur ation-de-l-aqri-trium-a-pusignan-lyon-st- exupery-69@/view-1389-arvstatiques.html IDELE: http://idele.fr/ CIVC: https://www.champagne.fr/ IFV: https://www.vignevin.com/ IFIP: https://www.vignevin.com/ IFIP: https://www.ifip.asso.fr/fr Chambre d'Agriculture de la Somme: https://hautsdefrance.chambres- agriculture.fr/vos-chambres/somme/ Chambre d'Agriculture des Pays de Loire: https://pays-de-la-loire.chambres- agriculture.fr/	YES The matrix institution ACTA - French Agricultural Technical Institutes Network has been registered both as CC and as Knowledge institution / Research Community YES The matrix organization Arvalis has been registered without selecting organisation type (not as CC) The rest of CCs have not been registered in the SAH IP
3.6. Ecole Supérieur d'Agricultures ESA [arable, fruits, dairy, vegetables, organic, breeding]	http://www.groupe- esa.com/ (YES)	Not defined, probably the organisation itself	YES Registered as DIH, not as CC
3.7. H2020 DT- RUR-12-2018 Digital Innovation Hubs for Agriculture	(YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH) 🕮	Associated CCs [TBC]	Registered in SAH IP
3.8. IMAGES & RESEAUX I&R [arable, fruits, poultry, greenhouses, dairy, vegetables, piggery]	https://www.images-et- reseaux.com/ Number of member organizations: 266 members in I&R. This is the number of members of the associations Images&Réseaux. The DIH will rely on other regional structures accompanying innovation: 11 technopoles (4 in Pays de la Loire, 7 in Bretagne), 6 French tech (2 in Bretagne, 4 in pays de la Loire), the 2 regional chambers of commerce and chamber of agriculture, the 2 economical regional agencies, the 2 regional structures for international development.	RFI Atlanstic 2020: https://atlanstic2020.fr/en/ Cluster we networks: http://www.we-n.eu/ Cluster photonics Bretagne: https://www.photonics- bretagne.com/en/homepage/ Cluster Pole d'excellence cyber: https://www.pole-excellence-cyber.org/ IRT b<>com: https://b-com.com/en	CCs have not been registered in the SAH IP
3.9. Inf'Agri85 [fruits, poultry, livestock, dairy, vegetables, piggery, wine, gardening]	http://infagri85.fr/ Number of member organizations: 60. (YES)	Not defined – Inf'Agri85 has been reported as CC in FIE#6 progress report, but it is registered in the portal as DIH.	YES Registered as DIH, not as CC
3.10 Innovin	(YES)	Not defined	CCs have not been registered in the SAH IP
3.11. MAYENNE TECHNOPOLE LMT [poultry, dairy, vegetables]	https://www.laval- technopole.fr/ Number of member organizations: 140. (YES)	CLARTE: https://www.clarte-lab.fr/ Lycée Agricole de Laval: https://www.lycee-agricole-laval.com/ ESIEA Laval: https://www.esiea.fr/ Chambre d'agriculture de la Mayenne: https://pays-de-la-loire.chambres- agriculture.fr/vos-chambres/en-mayenne/	CCs have not been registered in the SAH IP
3.12. COMPETITIVENES CLUSTER QUALITROPIC TROPICAL BIOECONOMY [arable, fruits, vegetables, organic]	http://qualitropic.fr/ Number of member organizations: 100. (YES)	ACTA : <u>http://www.acta.asso.fr/</u> (particularly	YES The matrix in- stitution ACTA - French Agricul- tural Technical Institutes Net- work has been registered both as CC and as

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		ARMEFLHOR: <u>http://www.armeflhor.fr/</u>) IRSTEA: <u>https://www.irstea.fr/fr</u> CIRAD -La Réunion et Mayotte's centers: https://reunion-mayotte.cirad.fr/	Knowledge in- stitution / Re- search Commu- nity The rest of CCs have not been registered in the SAH IP
3.13. Technical centre for innovation and research for feed industry and bulk food TECALIMAN [animal feed]	http://www.tecaliman.c om/ Number of member organizations: 93. (YES)	Not defined, probably the organisation itself	YES Registered as DIH, not as CC
3.14 Digifermes Network	(YES)	Not defined	CCs have not been registered in the SAH IP
3.14. VALORIAL [fruits, poultry, bakery, dairy, piggery, organic, feed]	https://www.pole- valorial.fr/ Number of member organizations: 330. (YES)	Valorial CEA TECH: <u>http://www.cea-tech.fr</u>	YES Registered as DIH, not as CC The matrix institution is registered as DIH, not as CC
		ACTA: http://www.acta.asso.fr/	YES The matrix institution ACTA - French Agricultural Technical Institutes Network has been registered both as CC and as Knowledge institution / Research Community
		GROUPE ESEO (ECOLE SUPERIEURE D'ELECTRONIQUE DE L'OUEST): <u>www.eseo.fr</u>	YES But not as CC It is registered without selecting organization type

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		DIGITAL CAMPUS: http://www.digital-	The rest of CCs
		campus.fr/	have not been
		UNICAEN (UNIVERSITE DE CAEN NORMANDIE):	registered in the SAH IP
		www.unicaen.fr	1
		IMT ATLANTIQUE BRETAGNE PAYS DE LA LOIRE - CAMPUS BREST: <u>www.imt-</u> <u>atlantique.fr</u>	
		ESIGELEC (ECOLE SUPERIEURE D'INGENIEURS EN GENIE ELECTRIQUE): http://www.esigelec.fr/fr	
		CERPEM (CENTRE D'ETUDES ET RECHERCHES POUR LA PROTECTION ELECTRONIQUE):	
		https://www.europages.fr/CERPEM/000000045 72416-001.html	
		ISEN LILLE (INSTITUT SUPERIEUR DE L'ELECTRONIQUE ET DU NUMERIQUE):	
		https://www.isen-lille.fr/ INSTITUT MINES TELECOM: https://www.imt.fr/	
		CRT MORLAIX (CENTRE DE METROLOGIE): www.crt-morlaix.com	
		INSTITUT POLYTECHNIQUE LASALLE BEAUVAIS:	
		www.lasalle-beauvais.fr LORRAINE INP (INSTITUT NATIONAL	
		POLYTECHIQUE DE LORRAINE):	
		http://polytech-nancy.univ-lorraine.fr/ UTC (UNIVERSITÉ TECHNOLOGIQUE DE	
		COMPIÈGNE): <u>https://www.utc.fr/</u> LNE (LABORATOIRE NATIONAL DE	
		METROLOGIE ET D'ESSAI): <u>https://www.lne.fr/</u>	
		TELECOM BRETAGNE: <u>www.telecom-</u> bretagne.eu	
		POLYTECH NANTES: https://polytech.univ-	
		nantes.fr/ ENSAI (ÉCOLE NATIONALE DE LA	
		STATISTIQUE ET DE L'ANALYSE ET DE L'INFORMATION): <u>http://www.ensai.fr/</u>	
		IFSTTAR (INSTITUT FRANCAIS DES SCIENCES ET TECHNOLOGIES DES TRANSPORTS, DE	
		L'AMENAGEMENT ET DES RESEAUX): www.ifsttar.fr	
		PHOTONICS BRETAGNE: http://www.photonics.com	
		https://www.photonics-	
		bretagne.com/fr/accueil/ CLARTE: https://www.clarte-lab.fr/	
		ISTIA (INSTITUT DES SECIENCES ET TECHNIQUES DE L'INGENIEUR D'ANGERS):	
		www.istia.univ-angers.fr	
		IRSTEA: <u>http://www.irstea.fr/accueil</u> CTTM (CENTRE DE TRANSFERT DE	
		TECHNOLOGIE DU MANS): <u>http://www.cttm-</u> lemans.com	
		ISAE - SUPAERO (INSTITUT SUPERIEUR DE	
		L'AERONAUTIQUE ET DE L'ESPACE): https://www.isae-supaero.fr/fr/	
		INRIA (INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET EN AUTOMATIQUE):	
		https://www.inria.fr/	
		AGROSUP DIJON: https://www.agrosupdijon.fr/	
		CIRAD (CENTRE DE COOPERATION INTERNATIONALE EN RECHERCHE	
		AGRONOMIQUE POUR LE DEVELOPPEMENT):	
	I	https://www.cirad.fr/	

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		CTCPA (CENTRE TECHNIQUE DE LA CONSERVATION DES PRODUITS AGRICOLES): www.ctcpa.org ENSSAT (ECOLE NATIONALE SUPERIEURE DES SCIENCES APPLIQUEES ET DE TECHNOLOGIE): http://www.enssat.fr/ ESA (ECOLE SUPERIEURE D'AGRICULTURE): http://www.enssat.fr/ IDELE (INSTITUT DE L'ELEVAGE): http://www.iftp.asso.fr/fr INTA: http://www.angers-nantes.inra.fr/ IRT B-COM: https://b-com.com/fr IRT JULES VERNE: https://www.irt-jules- verne.fr/ MONTPELLIER SUPAGRO: https://www.montpellier-supagro.fr/ AERIAL: https://www.aerial-crt.com/ CEVA (CENTRE D'ETUDES ET DE VALORISATION DES ALGUES): http://www.ceva.fr/ IFPC (INSTITUT FRANCAIS DES PRODUCTIONS CIDRICOLES): http://www.ifrc.eu/ INRIA: https://www.ifrc.eu/ INRIA: https://www.ifrc.eu/ INIVERSITE DE BRETAGNE OCCIDENTALE): https://www.enenes-sb.fr/ UBG (UNIVERSITE DE BRETAGNE SUD): http://www.univ-engers.fr/fr/index.html UNIVERSITE D'ANGERS: https://www.univ-engers.fr/fr/index.html UNIVERSITE D'ANGERS: https://www.univ-engers.fr/fr/index.html UNIVERSITE D'ANGERS: https://www.agrocampus-ouest.fr/ AGROCAMPUS OUEST: https://www.agrifood-transition.fr/	
3.15. VEGEPOLYS VALLEY [fruits, greenhouses, vineyard, vegetables, organic, seed production, medicinal and aromatic, ornamentals, urban farming]	https://www.veqepolys .eu/ https://www.veqepolys -valley.eu/ Number of member organizations: 420. (YES)	Vegepolys AgreenTech Valley: https://www.agreentechvalley.fr/ ESEO: https://eseo.fr/	YES Registered as CC and DIH YES Dut as DIH (not as CC) YES But not as CC

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		We Network / Cité de l'objet connecté: http://www.we-n.eu/ LIT Grandes Cultures Auvergne: https://www.lit-qca.com/ Cluster Lumière: https://www.clusterlumiere.com/ Photonics Bretagne: https://www.clusterlumiere.com/ Photonics Bretagne: https://www.photonics- bretagne.com/fr/accueil/ ID4Car: http://www.id4car.org/ Université d'Angers – LARIS: http://laris.univ-angers.fr/fr/index.html CTIFL: http://www.id4car.org/ Université d'Angers – LARIS: http://laris.univ-angers.fr/fr/index.html CTIFL: http://www.cifil.fr/ FNAMS: https://www.fnams.fr/ Itepmai: http://www.irstea.fr/fr IFV: http://www.vignevin.com/ Astredhor: https://www.astredhor.fr/	It is registered without selecting organization type The rest of CCs have not been registered in the SAH IP
3.16. My Bacchus [Vegetables, fruit] (RC Progress Report)	https://http//mybacchu s.net (YES)	Not defined	CCs have not been registered in the SAH IP
3.17 CAP DIGITAL [Precision farming, Weather monitoring, etc.] (RC Progress Report)	http://www.capdigital.c om/ (YES)	Not defined	CCs have not been registered in the SAH IP
3.18. VITAGORA [arable, fruits, poultry, greenhouses, dairy, etc.] (RC Progress Report)	https://www.vitagora.c om (YES)	Centres de recherche: INRA, UBFC, AgroSup, AgroParisTech Coopératives agricoles: Agrial, Dijon céréales, Invivo PME innovantes: Towerfarm, Atol C&D	CCs have not been registered in the SAH IP
3.19. AGRI SUD- OUEST INNOVATION [arable, fruits, aquaculture, vegetables, animal husbandry] (RC Progress Report)	https://www.agrisudou est.com/ (YES)	Montpellier Sup Agro (Chaire agroTIC) https://www.montpellier-supagro.fr/ Bordeaux Science Agro (Chaire agroTIC) https://www.agro-bordeaux.fr/ Institut de Recherche en Informatique de Toulouse https://www.irit.fr/ Institut National pour la Recherche Agronomique et l'Environnement (INRAE) https://www.inrae.fr/en Institut de convergence Agriculture numérique (#DigitAg) https://www.hdigitag.fr/en/ Evasprayviti test bench (Institut Français de la Vigne et du Vin - IFV)	CCs have not been registered in the SAH IP
3.20. La ferme digitale (RC Progress Report)	<u>https://www.lafermedi</u> gitale.fr/ (NO)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
3.21. Le Village by CA [arable, fruits, poultry, greenhouses, dairy, vegetables, etc.] (RC Progress Report)	https://levillagebyca.co m/fr (NO)	Not defined	CCs have not been registered in the SAH IP
3.22. ASSOCIATION INDUSTRIES ET AGRO- RESSOURCES (IAR) [arable, aquaculture] (RC Progress Report)	<u>https://www.iar-</u> pole.com/ (NO)	Not defined	CCs have not been registered in the SAH IP

RC4. Regional Cluster 4 – North West Europe

Table 14 – CCs belonging to SAH DIH Catalogue – North West Europe

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
4.1 Advanced Precision Horticulture Platform APH [arable farming, greenhouses, vegeta- bles]	Number of member organiza- tions: (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.2 Agrifood Capital AFC [arable farming, pig- gery, poultry, airy, food processing, food logistics, catering & retail]	Number of member organiza- tions: 300. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.3 Agropolis Kinrrooi [arable farming, fruits, vegetables]	Number of member organiza- tions: 17. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.4 Bauförderung Landwirtschaft e.V. BFL [piggery, poultry, dairy]	Number of member organiza- tions: 100. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.5 Bayerische Lan- desanstalt für Land- wirtschaft (LfL) Institut für Landtechnik und Tierhaltung, Grub LfL [arable farming, or- ganic, animal	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
husbandry, piggery, poultry, dairy, other]			
4.6 Bildungs- und Wis- senszentrum Boxberg Baden Württemberg LSZ Pig Breeding [piggery]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.7 Brightlands Cam- pus Greenport Venlo BCGV [arable farming, fruits, greenhouses, vegeta- bles]	Number of member organizations (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.8. Digital Foodvalley hub – part of ICT Cam- pus Digital FV Hub	(YES)	Not defined	CCs have not been registered in the SAH IP
4.9 FarmHackNL [arable, piggery, dairy]	Number of member organiza- tions: (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.10 Flanders Make [arable farming, fruits, greenhouses, vegeta- bles]	Number of member organiza- tions: 100. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.11. Flanders FOOD FF [arable farming, fruits, vegetables, piggery, poultry, dairy, primary food processing]	https://www.flandersfood.com/ Number of member organiza- tions: 315 company members as well as the important universities and RTOs in Flanders. (YES)	Instituut voor Landbouw-, Visserij en Voedingsonder- zoek: https://www.ilvo.vlaande- ren.be/ Universiteit Gent: https://www.ugent.be/	YES YES It is registered as Ghent University - Plants & Crops
		IMEC: <u>https://www.imec-</u> int.com/	YES Registered as DIH, CC, IoT Technology Provider, Knowledge in- stitution / Re- search Com- munity
		INAGRO Vzw: <u>http://leden.ina-gro.be/</u>	YES But not as CC

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
			It is registered without selecting organization type
		Katholieke Universiteit Leuven: <u>https://www.kuleuven.be/kuleu-</u> <u>ven/</u> Vrije Universiteit Brussel: <u>http://www.vub.ac.be/</u> Universiteit Antwerpen: <u>https://www.uantwerpen.be/nl/</u> Universiteit Hasselt: <u>https://www.uhasselt.be/</u> VITO NV: <u>https://vito.be/nl</u>	The rest of CCs have not been registered in the SAH IP
4.12 Forschungsinsti- tut für biologischen Landbau in Europa FiBL Europe [organic]	Number of member organiza- tions: 5. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.13 Foundation ICT for Brain, Body and Behaviour 3iB	(YES)	Not defined	CCs have not been registered in the SAH IP
 4.14 Greenport Horti Campus as the Inno- vation organisation of the Greenport West Holland GHC [organic, greenhouses, vegetables, ornamen- tal plants and flowers] 	https://greenportwesthol- land.nl/en Number of member organiza- tions: 64.	The organization itself Competence Centres – Univer- sity: 7 Competence Centres – Research & Tech: 5	YES registered as DIH and CC CCs have not been regis- tered in the SAH IP
4.15. IMEC [arable farming, fruits]	https://www.imec-int.com/ (YES) Registered as DIH, CC, IoT Tech- nology Provider, Knowledge insti- tution / Research Community	Instituut voor Landbouw-, Visserij en Voedingsonder- zoek: https://www.ilvo.vlaande- ren.be/ Radboud Universiteit: https://www.ru.nl/ Wageningen University & Re- search: https://www.wur.nl/	YES Coo NO YES Coo
4.16 INNOHUB Luxem- bourg (InnoHub) [greenhouses]	Number of member organiza- tions: 30. (YES)	Competence Centres – Univer- sity: 0 Competence Centres – Research & Tech: 0	CCs have not been regis- tered in the SAH IP
4.17 Innovation Sup- port Service "Innova- tionsbüro EIP Agrar Schleswig-Holstein" Innovationsbüro SH [arable farming, or- ganic, vegetables, pig- gery, dairy, forestry and hedges, knicks,	Number of member organiza- tions: 20. (YES)	Competence Centres – Univer- sity: 0 Competence Centres – Research & Tech: 20	CCs have not been regis- tered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
horticulture]			
4.18. JoinData Joindata Cooperative Data Hub [Dairy and others]	https://www.join-data.nl/ Member organizations: 10Fries- landCampina, Agrifirm, CRV & Edi-Circle.	Wageningen University & Re- search: https://www.wur.nl/en/pro- ject/National-Smart-Farming-pi- lot-project.htm Instituut voor Landbouw-, Visserij en Voedingsonder- zoek: https://www.ilvo.vlaande- ren.be/	YES Solution YES
 4.19 Kuratorium für Technik und Bauen in der Landwirtschaft e.V. KTBL [arable farming, fruits, organic, greenhouses, vegetables, piggery, poultry, dairy, wine] 	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.20 Landesanstalt für Landwirtschaft, Forsten und Gartenbau Sachsen Anhalt LVA Iden [arable farming, ani- mal husbandry, pig- gery, dairy, other]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.21 Landwirtschaftli- ches Bildungszentrum Echem Landwirt- schaftskammer Nie- dersachsen LVA Echem [arable farming, poul- try, dairy]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.22 Landwirtschafts- zentrum Eichhof Lan- desbetrieb Landwirt- schaft Hessen (LLH) Schloss Eichhof [arable farming, pig- gery, dairy]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.23 Landwirtschafts- zentrum Haus Düsse Landwirtschaftskam- mer Nordrhein Westfa- len Haus Düsse [arable farming, or- ganic, piggery, poul- try, dairy]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.24 Land- wirtschaftszentrum- HausRiswick HausRis- wick [arable farming, ani- mal husbandry, dairy, other]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.25 Lehr- und	Number of member	Not defined	CCs have not

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
Versuchsanstalt für Viehhaltung Hofgut Neumühle [arable farming, ani- mal husbandry, pig- gery, dairy, other]	organizations: 1. (YES)		been regis- tered in the SAH IP
4.26 Lehr- und Ver- suchszentrum Futter- kamp Landwirtschafts- kammer Schleswig- Holstein LVA Futter- kamp [arable farming, pig- gery, dairy]	Number of member organiza- tions: 1. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.27. National Fieldlab for Precision Agricul- ture NPPL [arable farming, dairy, open field vegetables and flower bulbs, fruits; integrated & or- ganic]	https://www.proeftuinprecisie- landbouw.nl/over-nppl/ Number of member organiza- tions: 16 farms plus Wageningen University & Research plus Aeres University of Applied Sciences plus ProAgrica.	Wageningen University & Re- search: https://www.wur.nl/en/pro- ject/National-Smart-Farming-pi- lot-project.htm	YES
 4.28 Netzwerk EIP Agrar & Innovation Niedersachsen EIP Agri in Lower Sax- ony [arable farming, or- ganic, piggery, poul- try, dairy] 	Number of member organiza- tions: 15. (YES)	Competence Centres – Univer- sity: 0 Competence Centres – Research & Tech: 1	CCs have not been regis- tered in the SAH IP
4.29 NetzwerkAcker- bau Niedersachsen e. V (Network Agriculture Lower Saxony) NAN [arable farming, or- ganic, vegetables, field irrigation, herbs]	Number of member organiza- tions: 25. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.30 PhotonDelta Co- operative Digital Innovation Hubs in Europe [fruits, greenhouses, vegetables, poultry]	Number of member organiza- tions: (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.31. PP R&D on the development of a smart data use system for sustainable potato production and storage E-Pieper e-Potato [arable farming; inte- grated & organic]	https://www.thepotatoval- ley.nl/projecten-1/e-pieper Number of member organiza- tions: 2 farms plus Wageningen University & Research and 15 other partners.	Wageningen University & Re- search: <u>https://sub-</u> sites.wur.nl/nl/plb/PL-Pro- jecten/DISAC/E-pieper.htm	YES
4.32. Praktijkcentrum	https://www.pcvpl.nl/	Instituut voor Landbouw-,	YES

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
voor Precisielandbouw PCvPL [arable farming, ma- chines for arable]	Number of member organiza- tions: 20, e.g. ZLTO. (YES)	Visserij en Voedingsonder- zoek: https://www.ilvo.vlaande- ren.be/ Universiteit Gent: https://www.uqent.be/ Wageningen University & Re- search: https://www.wur.nl/ VITO NV: https://www.wur.nl/ VITO NV: https://vito.be/nl HAS Hogeschool: https://www.hashogeschool.nl/ Eindhoven University of Tech-	YES VES It is registered as Ghent University - Plants & Crops YES VES The rest of CCs have not been registered in the SAH IP
4.33 Sächsisches Landesamt für Um- welt, Landwirtschaft und Geologie Lehr- und Versuchsgut Köllitsch LVA Köllitsch [arable farming, ani- mal husbandry, pig- gery, dairy, other]	Number of member organiza- tions: 1. (YES)	nology: <u>https://www.tue.nl/en/</u> Not defined	CCs have not been regis- tered in the SAH IP
4.34. Smart Digital Farming SDF [arable farming, vege- tables, piggery, poul- try, dairy]	https://www.smartdigitalfarm- ing.be/ Number of member organiza- tions: 30.	Instituut voor Landbouw-, Visserij en Voedingsonder- zoek: https://www.ilvo.vlaande- ren.be/ Universiteit Gent: https://www.ugent.be/bw/en INAGRO: http://leden.inagro.be/	YES YES It is registered as Ghent University - Plants & Crops YES
		PCFruit: https://www.pcfruit.be/en PCA: https://www.pcainfo.be/ KUL MeBioS: https://www.biw.kuleu- yen.be/biosyst/mebios VITO: https://vito.be/en/news/vito-sup-	But not as CC It is registered without selecting organization type The rest of CCs have not been registered in the SAH IP
4.35 Smart Farming	Number of member	ports-belgian-potato-production Competence Centres –	CCs have not

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
for North Netherlands SF4NN [arable farming, dairy]	organizations: 33. (YES)	University: 10 Competence Centres – Research & Tech: 9	been regis- tered in the SAH IP
4.36 Stichting Green- port Noord Holland Noord GreenPort NHN [arable farming, fruits, organic, greenhouses, vegetables, dairy, flower bulbs]	Number of member organiza- tions: 17. (YES)	Not defined	CCs have not been regis- tered in the SAH IP
4.37 SynHERA [arable farming, or- ganic, greenhouses, vegetables, animal husbandry, piggery, poultry, dairy]	Number of member organiza- tions: 29. (YES)	Competence Centres – Univer- sity: 10 Competence Centres – Research & Tech: 10	CCs have not been regis- tered in the SAH IP
4.38 VzF Professional [organic, animal hus- bandry, piggery, other]	Number of member organiza- tions: 1. (YES)	The organization itself has been registered but only as DIH	CCs have not been registered in the SAH IP
4.39 Wageningen Data Competence Center WDCC [arable farming, fruits, organic, greenhouses, vegetables, piggery, poultry, dairy, envi- ronment]	Number of member organiza- tions: 2. (YES)	Competence Centres – Univer- sity: 0 Competence Centres – Research & Tech: 2	CCs have not been regis- tered in the SAH IP
4.40 Walleverage- Smart Wallesmart [animal husbandry, dairy]	Number of member organiza- tions: 10. (NO)	Awe Groupe Competence Centres – Univer- sity: 2 Competence Centres – Research & Tech: 1	YES Registered as DIH, CC, NGO CCs have not been regis- tered in the SAH IP
4.41. Agropolis Kinrooi [arable, fruit, vegeta- bles, livestock] (RC Progress Report)	https://www.aqropolis-kin- rooi.be/en (YES)	Not defined	CCs have not been registered in the SAH IP
4.42. Zuidelijke Land- en Tuinbouworganisa- tie (ZLTO) [Livestock, arable, vegetables, fruit] (RC Progress Report)	https://www.zlto.nl/home (YES)	ZLTO WP5 has accepted as CC although it has registered as DIH, CC, Sec- tor Organization and IoF2020 use case	YES Registered as DIH, CC, Sector Organization and IoF2020 use case
4.43. Datafarmer [Arable, vegetables] (RC Progress Report)	https://databoerin.nl/ (YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
4.44 CNH Industrial Belgium [Arable] (RC Progress Report)	https://www.cnhindustrial.com/ (YES)	Not defined	CCs have not been registered in the SAH IP
4.45 Farm Result [Livestock] (RC Progress Report)	https://farmresult.com/en/ (YES)	Not defined	CCs have not been registered in the SAH IP
4.46 Capgemini Ne- derland [Livestock, Arable, Vegetables, Fruit] (RC Progress Report)	https://www.capqemini.com/nl- nl/ (YES)	Not defined	CCs have not been registered in the SAH IP
4.47. WalDigifarm	https://www.waldigifarm.be/	Not defined	CCs have not been registered in the SAH IP
4.48. Netzwerk Acker- bau Niedersachsen [Arable] (RC Progress Report)	https://netzwerk-ackerbau.de/ (YES)	Not defined	CCs have not been registered in the SAH IP
4.49. Institut für Pflanzenbau und Pflan- zenzüchtung (RC Progress Report)	https://www.lfl.bayern.de/ipz/	Not defined	CCs have not been registered in the SAH IP
4.50. VzF GmbH Erfolg mit Schwein (RC Progress Report)	http://neu.vzf-gmbh.de/ (YES)	Not defined	CCs have not been registered in the SAH IP

RC5. Regional Cluster 5 – Central Europe

Table 15 – CCs belonging to SAH DIH Catalogue – Central Europe

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
5.1. Agro-Informat- ics Center for Higher Education and Cooperation AGIT FIEK	http://statlogics.com/asseco- hungary-is-the-consortium-part- ner-of-agit-fiek/ Strategic RDI cooperation con- sortium.	SKC-Consulting Kft: https://skc.hu/ Axiál Repair: https://www.axial.hu/ Trade and Service Ltd.: http://as- seco.hu/en ASSECO Central Europe Hungary Ltd.: https://ce.asseco.com/en/ ENERGOTEST Kft.: http://www.energotest.eu/?lang=en	CCs have not been registered in the SAH IP
5.2. Agrarian Ad- visory and Infor- mation group of Czech University of Life Science AGRIS	https://www.czu.cz/en/ University. (YES)	Czech University of Life Sciences - Department of Information Technolo- gies: <u>http://kit.pef.czu.cz/en/</u> CAAS (Czech academy of agricultural sciences): <u>https://www.cazv.cz/en/home/</u> CSITA (Czech Society for Information Technology in Agriculture): <u>https://www.csita.cz/en/</u>	CCs have not been registered in the SAH IP
5.3. Agro Innova- tion Lab AIL	https://www.aqroinnova- tionlab.com/ StartUp Acceleration. (YES)	BayWa: <u>https://www.baywa.at/</u> RWA: <u>https://www.rwa.at/</u>	CCs have not been regis- tered in the SAH IP
5.4. Agrarian Mar- ket Information of Slovakia ATIS	(YES)	Not defined	CCs have not been registered in the SAH IP
5.5. Demola-Buda- pest DEMOLA	https://budapest.demola.net/ https://www.demola.net/con- tact#hungary Research Network. (YES)	Budapest University of Technology and Economics (BME): <u>https://www.bme.hu/?language=en</u> ICT Association of Hungary : <u>http://ivsz.hu/en/</u> Makerspace.hu : <u>https://www.mak-</u> <u>erspace.hu/</u>	CCs have not been regis- tered in the SAH IP
5.6. The Farm Advisory System of the Ministry of Agriculture EAGRI	http://eaqri.cz/pub- lic/web/en/mze/ Ministry.	Food Safety Information Center: http://www.foodsafety.cz/ Foodnet: http://www.food- net.cz/slozka/?jmeno=Z%E1kladn%ED +informace&id=13 The Water Management Infor- mation Portal State Agricultural In- tervention Fund: http://www.voda.gov.cz/portal/en/ Czech Agriculture and Food Inspec- tion Authority: http://www.szpi.gov.cz/en/de- fault.aspx Institute of Agricultural and Food Information: http://www.uzpi.cz/indexen.htm Portal of the Public Administration: http://portal.gov.cz/wps/por- tal/ s.155/19005 State Veterinary Administration of	CCs have not been regis- tered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		the Czech Republic: http://ea- gri.cz/public/web/en/svs/portal/ State Phytosanitary Administra- tion: http://eaqri.cz/public/web/en/srs/por- tal/ Central Institute for Supervising and Testing in Agriculture: http://eaqri.cz/pub- lic/web/en/ukzuz/portal/	
5.7. Research Innovation Hub for Open Data and Landscape Manage- ment Plan4all	https://www.plan4all.eu/ Association of research and in- novation projects. (YES)	Wirelessinfo: <u>http://www.wireles-</u> sinfo.cz/	YES Registered as DIH and as CC
	Registered as DIH and as CC	University of West Bohemia: http://kgm.zcu.cz/ Help Service Remote Sensing: http://www.bnhelp.cz/ Czech Centre for Science and Soci- ety: http://www.ccss.cz/en/ Czech Open Solutions Center: http://www.cosc.cz/ Lesprojekt – sluzby: http://lespro- jekt.cz/ EDIP s.r.o.: http://www.edip.cz/ InnoConnect s.r.o.: http://innocon- nect.net/	The rest of CCs have not been registered in the SAH IP
5.8. Platform "Dig- itization in Agricul- ture" of Austrian Federal Ministry of Sustainability and Tourism	https://www.bmnt.gv.at/ser- vice/publikationen/land/digital- isierung-in-der-land- wirtschaft.html Expert Group hosted by Minis- try. (YES)	Josephinum Research: https://www.josephinum.at/blt.html Bundesministerium für Nachhaltig- keit und Tourismus: https://www.bmnt.qv.at/ Landwirtschaftskammer Öster- reich: https://www.lko.at/ Maschinenring Österreich: https://www.maschinenring.at/ University of Natural Resources and Life Sciences Vienna: http://www.boku.ac.at/ HBLFA Raumberg-Gumpenstein: https://www.raumberg-gumpens- tein.at/ ZuchtData EDV-Dienstleistungen GmbH: https://www.zar.at/ Hochschule für Agrar- und Umwelt- pädagogik Wien: http://www.aqrarumweltpaedago- gik.ac.at/ AGES: https://www.aqes.at/start- seite/# Umweltbundesamt: http://www.umweltbundesamt.at/	CCs have not been regis- tered in the SAH IP
5.9. Agricultural Payment Agency PPA	http://www.apa.sk/en/ The Agricultural Intervention Agency. SAPARD Agency. Minis- try of Agriculture of the Slovak Republic Section of Agricultural Paying Agency: http://www.mpsr.sk/en/	APA - Agricultural Paying Agency: http://www.apa.sk/en/ Ministry of Agriculture and Rural Development of the Slovak Repub- lic: http://www.mpsr.sk/en/ Agency for Rural Development Agroinstitute: http://www.agroinstitut.sk/	CCs have not been regis- tered in the SAH IP
	(YES)	Land Offices:	

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		http://www.apa.sk/in- dex.php?navID=115 Central Controlling and Testing In- stitute in Agriculture: http://www.uksup.sk/index.php?n=101 Slovak Agricultural and Food Chamber: http://www.sppk.sk/ The State Veterinary and Food Ad- ministration of the Slovak Republic: http://www.svps.sk/english/ The Customs Administration of the Slovak Republic: http://www.colnasprava.sk/wps/por- tal/!ut/p/ s.7 0 A/7 0 280	
5.10. Czech Living Lab WirelessInfo	http://www.wireless- info.cz/en/wirelessinfo-czech-liv- ing-lab/ Association which brings to- gether SMEs, research and in- dustry. (YES) Registered as DIH and as CC	MJM Litovel a.s. (MJM): http://www.mjm.cz/index_e.html HSRS Ltd. (Help service - remote sens- ing): http://www.bnhelp.cz/ Help forest Ltd.: http://www.helpfo- rest.cz/ Lesprojekt sluzby Ltd.: http://www.lesprojekt.cz/ Masaryk University in Brno: http://www.muni.cz/	CCs have not been regis- tered in the SAH IP
5.11. Cluster "Digit- ization in Agricul- ture" (RC Progress Re- port)	23 member organizations (will register in SAH soon) (NO)	Josephinum Research: https://www.josephinum.at/blt.html Landwirtschaftskammer Öster- reich: https://www.lko.at/ Federal Institute of Rural Education and Training: https://www.lfi.at/ University of Natural Resources and Life Sciences Vienna: http://www.boku.ac.at/ Bildungswerkstatt Mold: https://www.bildungswerkstatt- mold.at/ HBLFA Raumberg-Gumpenstein: https://www.raumberg-gumpen- stein.at/ Association of Austrian Cattle Breeders (ZAR): https://zar.at/ ZuchtData EDV-Dienstleistungen GmbH: https://www.zar.at/ AGES: https://www.ages.at/startseite/ Umweltbundesamt: http://www.umweltbundesamt.at/ Bundesministerium für Landwirt- schaft, Regionen und Tourismus: https://www.bmlrt.gv.at/ as well as all Regional Chambers of Agriculture and some Institutes of Rural Education and Training	CCs have not been regis- tered in the SAH IP
5.12. Swiss Future Farm (SFF) [arable, dairy] (RC Progress Re- port)	http://www.swissfuturefarm.ch 3 member organizations (YES)	BBZ Arenenberg: https://arenenberg.tg.ch/ AGCO: https://www.aqcocorp.com/ GVS Agrar AG: https://www.gvs-agrar.ch/home.html	YES The rest of CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
5.13. Added Value Economics Re- search and Devel- opment Institute Association and DIH (RC Progress Re- port)	http://www.valueaddedinsti- tuteassociation.eoldal.hu/ 16 member organizations (YES)	See under: <u>https://s3plat-</u> <u>form.jrc.ec.europa.eu/digital-innova-</u> <u>tion-hubs-tool/-/dih/13293/view</u>	CCs have not been regis- tered in the SAH IP
5.14. Czech Center for Science and So- ciety (CCSS) [arable, fruits, ag- roforestry, land- scape manage- ment] (RC Progress Re- port)	http://www.ccss.cz/ 6 directly 20 non directly mem- ber organizations (YES)	Not defined	CCs have not been regis- tered in the SAH IP
5.15. Polirural Digi- tal Innovation Hub (PoliRural Hub) [Agroforestry, soil protection] (RC Progress Re- port)	https://hub.polirural.eu Members: 38 directly 100 as external stakeholders (NO)	Plan4all CCSS CZU CoO	YES Registered as DIH and as CC YES Registered as DIH (not as CC) The rest of CCs have not been registered in the SAH IP
5.16. FOODIE Smart Afri Hub (RC Progress Re- port)	It is connecting scientist from Czech with African communities, there is no support (NO)	Plan4all WirelessInfo Club of Ossiach	YES Registered as DIH and as CC YES Registered as DIH and as CC YES

RC6. Regional Cluster 6 – North East Europe

Table 16 – CCs belonging to SAH DIH Catalogue – North East Europe

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered
bin			in SAH IP
6.1. Centre for Ad- vanced Manufactur- ing Technologies – CAMT (PL)	http://www.camt.pl/in- dex.php/en/home-en/ Number of member organiza- tions: 1. Partners/collaborators: 26. (YES)	Centre for Advanced Manufacturing Technologies, Wroclaw University of Science and Technology: https://www.effra.eu/wroc%C5%82aw -university-technology Fraunhofer-Institut für Werkzeugmaschinen und Umformtechnik IWU (DE): https://www.iwu.fraunhofer.de/ Fraunhofer-Institut für Werkstoff- und Strahltechnik IWS (DE): https://www.iws.fraunhofer.de/	YES Registered as DIH, not as CC YES W But only the matrix institution without indicating organisation type
		AGH University of Science and Technology (AGH, University) (PL): https://www.aqh.edu.pl/en/ Wroclaw University of Science and Technology (PL): http://pwr.edu.pl/en/ TU Chemnitz (DE): https://www.tu- chemnitz.de/ Technical University of Dresden (DE): https://tu-dresden.de/ Warsaw University of Technology WUT (PL): https://www.pw.edu.pl/enqpw CINNOMATECH (cluster PL): http://www.cinnomatech.pl/ MERGEurope (cluster DE): https://www.tu- chemnitz.de/MERGE/InternationalProje cts/MERGEurope/ The Lower Silesian aviation cluster (cluster DE): https://en.aerosilesia.eu/about-us.html Rzeszow University of Technology (PL): https://www.uni- wuerzburg.de/startseite/	The rest of CCs have not been registered in the SAH IP
6.2. Agriculture Digital Innovation Hubs Poland DIH Agro Poland (PL)	N/A Number of member organiza- tions: 2. (YES)	<pre>Wielkopolska Agriculture Advisory Center (WODR): http://www.wodr.poznan.pl/</pre> Poznan Supercomputing and Networking Center (PSNC): http://www.man.poznan.pl/online/en / Poznan University of Life Sciences (PULS): https://skylark.up.poznan.pl/en/	YES YES Without selecting organisation type (not as CC) YES YES

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
			Registered as CC, Knowledge Institution & Research Community
		Industrial Institute of Agricultural Engineering (PIMR): http://www.pimr.poznan.pl/	NO
6.3. DIH for Smart Food (LV) DIH SF	https://oac.ktu.edu Number of member organizations: 20. (YES)	Not defined	CCs have not been registered in the SAH IP
6.4. AgriFood Lith- uania Digital Inno- vation Hub	(YES)	Not defined	CCs have not been registered in the SAH IP
6.5. HPC4Poland	http://www.hpc4poland.pl/en/ Number of member organiza- tions: 10. (YES)	Poznan Supercomputing and Networking Center (PSNC): <u>http://www.man.poznan.pl/online/en</u> <u>/</u>	YES Without selecting organisation type (not as CC)
		Industrial Institute of Agricultural Engineering (PIMR): <u>http://www.pimr.poznan.pl/</u> Poznan University of Technology (PUT): <u>https://www.put.poznan.pl/en</u> Adam Mickiewicz University (UAM): <u>https://amu.edu.pl/en</u>	The rest of CCs have not been registered in the SAH IP
6.6. Regional Digi- tal Innovation Hub related to Internet of Things IoT North Poland (PL) RC Progress Report	https://www.iotnorth- poland.com/ Number of member organiza- tions: 10. (YES)	Nicolaus Copernicus University: https://www.umk.pl/en/ Exea data center: https://exea.pl/en/ Optiguard Poland (CC) Synati (CC) Lappeenranta-Lahti University of Tech- nology LUT (CC) IMECC – Innovative Manufacturing Engineering Systems Competence Centre (CC) Tallinn University of Technology (CC) Digital Economy Lab of the University of Warsaw – DELAB (CC) WEXT.IT SME (CC) ESEMBER SME (CC) Leaware Sp. z o. o. (CC) SPE Global Solutions (CC) STMicroelectronics life.augmented (Swiss CC)	CCs have not been registered in the SAH IP
6.7. LRA Digital In- novation Hub (LT) LRA	http://www.ltrobotics.eu/en/dig ital-innovation-hub/ Number of member organiza- tions: 7.	Nemunas Valley: <u>http://www.slenis-nemunas.lt</u> Vytautas Magnus University Agriculture Academy:	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
	(YES)	https://zua.vdu.lt/en/Lithuanian Research Centre forAgriculture and Forestry:https://www.lammc.lt/enLithuanian Institute of AgrarianEconomics:https://www.laei.lt/?lng=enAgriculture Consulting Service:http://www.lzukt.lt/kontaktai/Private investor, institute:http://www.factobotics.com/Precizika Metal:https://ingemann.dk/uk/contacts/contact-lt.aspxFTMC:https://panmc.lt/Rubedo Sistemos:http://www.rubedos.com/Vilnius Gediminas TechnicalUniversity, Department ofMechatronics, Robotics and DigitalManufacturing:https://tinyurl.com/yb6q856d	
6.8. Pomerian Digi- tal Innovation Hub PDIH (PL)	N/A Number of member organiza- tions: 10. (YES)	Institute of Fluid Flow Machinery of the Polish Academy of Sciences - IMP PAN: <u>https://www.imp.gda.pl/en/</u> Centre of Informatics - Tricity Aca- demic Supercomputer & network - CI TASK: <u>https://task.gda.pl/centre-en</u> Baltic Eco-Energy Cluster: <u>https://www.imp.gda.pl/en/beec/</u>	CCs have not been regis- tered in the SAH IP
6.9. Riga Technical University – IKSA Research lab (LV) RTU, IKSA Lab	https://www.linkedin.com/com pany/valsts-nozīmes- pētniecības-centrs Number of member organizations: 6. (YES)	Latvian Electrical Engineering and Electronics Industry Association – LETERA: https://www.letera.lv	CCs have not been registered in the SAH IP
6.10. DIH Smart Industry Centre of Robotics in Estonia (EE) SmartIC Robotics	http://smartic.ee Number of member organiza- tions: 20. (YES)	OÜ PMT: http://pmt.ee/ Estonian Association of Information Technology and Telecommunications (ITL): https://www.itl.ee/Enq Association of Mechatronics (MECA) Tallinn University of Technology (TTÜ): https://www.ttu.ee/en Ensto Ensek AS: https://www.ensto.com ITT Group OÜ: https://www.ittgroup.ee/en/ Estonian Electronics Industries Association: http://www.estonianelectronics.eu Jalax AS: https://jalax.ee Estonian Plastics Association: https://www.plast.ee/en/about- us/estonian-plastics-association-2/ Norcar BSB Eesti AS: https://norcar.ee Tallinn University of Technology (TTÜ):	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		https://www.ttu.ee/en Federation of Estonian Engineering Industry (EML): https://www.emliit.ee/page/homepage BRLT Grupp AS: http://blrt.ee/en/ AQ Lasertool OÜ: http://aqq.se/ Tallinn University of Applied Sciences (TTK): https://www.tktk.ee/en/ IPTE Automation OÜ: https://www.ipte.com/ Mistra-Autex AS: https://www.mistra.ee Estonian University of Life Sciences (EMÜ): https://www.emu.ee/en/	
6.11. Farmers Par- liament Union ZSA	www.zemniekusaeima.lv Number of member organiza- tions: 900 members.	Latvian Rural Advisory and Training Centre: <u>www.llkc.lv</u>	YES
	(YES)	Latvia University of Life Sciences and Technologies: www.llu.lv	Registered as CC YES But without selecting organisation type (not as
		Ventspils High Technology Park: http://www.portofventspils.lv/en/inves t-in-ventspils/industrial- clients/ventspils-high-technology-park- vhtp/	But without selecting organisation type (not as CC)
		Zemgale Region Human Resource and Competences Development Centre: http://www.zrkac.lv/en/	NO
6.12. Industrial Re- search Institute for Automation and Measurements PIAP Hub [Arable, hunting, forestry] (RC Progress Re- port)	http://www.hub.piap.pl/ Number of member organiza- tions: 3 members. (YES)	Industrial Research Institute for Automation and Measurements PIAP (CC) PIAP-ScienTech (CC)	YES Registered as DIH (not as CC)
6.13. NASK Na- tional Research In- stitute [Financial interme- diation] (RC Progress Re- port)	https://www.nask.pl/ (NO)	NASK National Research Institute (CC)	CCs have not been registered in the SAH IP
6.14. CYBERSEC HUB (RC Progress Re- port)	https://cvbersechub.eu/ (NO)	The Kosciuszko Institute https://ik.org.pl/en/	CCs have not been registered in the SAH IP

RC7. Regional Cluster 7 – Iberia

Table 17 – CCs belonging to SAH DIH Catalogue - Iberia

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
7.1 ADVID - Asso- ciação para o De- senvolvimento da Viticultura Duriense	http://www.advid.pt (YES)	Not defined	Although it has only been registered as DIH and Sector Organisation, it appears in CCs catalog, although WP5 does not consider this organisation as CC
7.2. Agri Tech Big Data – Big Data In- novation Hub at the service of the Agri- food sector	https://agritech-big- data.com/en/home-en/ Artificial Intelligence. Industrial Data Fusion. Autonomous sys- tems and real time decision support. Hybrid Platforms/ in- frastructures (IoT/Big Data). Number of member organiza- tions: 70.	Eurecat: <u>https://eurecat.org/en/</u>	CCs have not been registered in the SAH IP
7.3. ANIMAFORUM- Associacao para o Desenvolvimento da Agro-Industria	http://www.agrocluster.com/ Number of member organiza- tions: 126. (YES)	Not defined	CCs have not been registered in the SAH IP
7.4. Almeria SmartAgriHub	www.almeriasmartaqri- hub.euwww.almeriasah.eu Greenhouse crop production technologies. Irrigation & Ferti-irrigation. Organic pro- duction and digital tools. Col- laborative R&D, technical sup- port on upscaling, testing & validation. Traceability and Certification Tools. Energy. Climate. Number of member organizations: 9 (subject to change, representing 80 cops, 15,000 farmers, 400 auxiliary businesses and SMEs).	Universidad de Almería (UAL): www.ual.es COEXPHAL: https://www.coexp- hal.es/ Solar Energy Research Center - Cen- tro de Investigación en Energía Solar CIESOL www.ciesol.es Automatic Control, Robotics and Mechatronics Research Group ARM arm.ual.es Estación Experimental Fundación Cajamar: http://www.fundacioncaja- mar.es/es/comun/estacion-experi- mental-palmerillas/ IFAPA-Almería: https://www.juntadeandalu- cia.es/agricultu- raypesca/ifapa/web/personas-	YES VES VES VES VES VES VES VES V

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		<u>estructuras-y-servicios/centros-</u> <u>ifapa/centro-ifapa-la-mojonera</u>	The matrix institution IFAPA has been registered as CC in Andalucía Agrotech DIH
			NO
		Parque Científico-Tecnológico de Al- mería PITA : <u>http://pitalmeria.es/</u>	
7.5. Andalucía Agrotech Digital Innovation Hub	https://juntadeandalu- cia.es/organismos/agricultu- rapescaydesarrolloru-	CeiA3-Universidad de Almería; Cátedra COEXPHAL-UAL: www.ual.es	YES
	ral/areas/desarrollo-rural/dih- andalucia-agrotech.html Agriculture, hunting and forestry. Fishing. Wholesale	COEXPHAL : <u>https://www.coexp-</u> <u>hal.es/</u>	YES
	and retail trade. Transport, storage and communication. Manufacture of food products, beverages and tobacco.	IFAPA, Instituto de Investigación y	Registered in Almeria SAH YES
	Number of member organiza- tions: 120 (YES)	Formación Agraria y Pesquera de An- dalucía: <u>https://www.juntadeandalu-</u> <u>cia.es/agriculturaypesca/ifapa/web/</u>	So
		Fundación CETEMET : <u>www.ce-</u>	YES
		temet.es	But registered as DIH, not as CC
		Campus de Excelencia Internacional Agroalimentario CeiA3: www.ceia3.es/ CeiA3-Universidad de Córdoba; Escuela Técnica Superior de Ingenie- ría Agronómica y de Montes: www.uco.es; www.uco.es/etsiam CeiA3-Universidad de Cádiz: www.uca.es; Andalucia Tech; Universidad de Se- villa, Escuela Técnica Superior de In- geniería Agronómica (ETSIA), Uni- versidad de Málaga: www.andalucia- tech.org ; etsia.us.es; www.uma.es Fundación Universidad Loyola Andalucía: www.uloyola.es/investigacion/depar- tamentos/ingenieria COIAA - Colegio Oficial de Ingenie- ros Agrónomos de Andalucía: agro- nomo.es/Inicio.aspx Parque Científico Tecnológico de Al- mería, PITA: pitalmeria.es/ Rabanales 21, Parque Científico Tecnológico de Córdoba: www.raba- nales21.com CTA - Corporación Tecnológica de Andalucía: www.corporaciontecnolo- gica.com CITOLIVA, Centro Tecnológico del Olivar y del Aceite: citoliva.es CTAQUA - Fundación Centro Tecno- lógico Acuicultura De Andalucía: cta- gua.es	The rest of CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
7.6. ARAGON-DIH.	http://www.aragondih.com/	CT TECNOVA – Fundación Para Las Tecnologías Auxiliares de la Agricul- tura: fundaciontecnova.com CITIC - Centro Andaluz de Innova- ción y Tecnologías de la Información y las Comunicaciones: www.citic.es CATEC - Centro Avanzado de Tecnologías Aeroespaciales: www.catec.aero GEOLIT – Parque Científico Tecnológico: geolit.es CIDAF - Centro de Investigación y Desarrollo del Alimento Funcional: cidaf.es ADESVA - Centro Tecnológico de la Agroindustria: www.citadesva.com/ Instituto Tecnológico de Aragón	CCs have not
DIH on HPC-Cloud and Cognitive Sys- tems for Smart Manufacturing pro- cesses, Robotics and Logistics	HPC-Cloud and Cognitive Sys- tems for Smart Manufacturing processes, Robotics and Logis- tics. 3 promoter entities. Collabora- tion with more than 1,000 enti- ties annually.	ITAINNOVA: <u>www.itainnova.es</u> Instituto de Biocomputación y Física de Sistemas Complejos de la Univer- sidad de Zaragoza BIFI : <u>http://www.bifi.es/es/</u>	been registered in the SAH IP
7.7. COTHN- Cen- tro de comepten- cias - Centro ope- rativo tecnológico Hortofrutícola Na- cional - Operative and tecnological center for horticul- ture and Fuit pro- duction	https://www.cothn.pt/ (YES)	Not defined	CCs have not been registered in the SAH IP
7.8. COTR – Centro Operativo e de Tec- nologia de Regadio	http://cotr.pt/ Number of member organizations: 40 (governmental agencies, universities, research institutes, ICT SME's, farmers associations). Farm network (>400 farmers).	Not defined	CCs have not been registered in the SAH IP
7.9. DIH IoT	https://www.innovationhub.es/ Number of member organiza- tions: 25. (YES)	Universidad de Salamanca (USAL): <u>http://www.usal.es/</u>	CCs have not been registered in the SAH IP
7.10. Hub digital de innovación para la Industria de	http://nagrifoodcluster.com/ Collaborative R&D, technical support on upscaling, testing &	Colegio Oficial de Ingenieros Agrónomos de Aragón, Navarra y País Vasco: <u>www.coiaanpv.orq</u>	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
Navarra	validation. Number of member organiza- tions: 70. (YES)	Universidad Pública de Navarra – Fundación Universidad Sociedad: www.unavarra.es http://www.unavarra.es/funda- cionuniversidadsociedad Grupo AN: www.grupoan.com Instituto EGA: www.iesega.com Intia: www.intiasa.es UAGN: http://uagn.es/ UCAN · Unión de Cooperativas Agra- rias de Navarra: www.ucan.es Universidad de Navarra: www.unav.edu Aditech Corporación Tecnológica: http://aditechcorp.com/ Asociación de la Industria Nava- rra: http://www.ain.es/ TRACASA: https://tracasa.es/ CEIN - Foodtech Navarra: http://www.cein.es/	
7.11. Digital Inno- vation Hub for the	http://polodeinnovaciondixi- tal.org/en/	Gradiant: <u>www.gradiant.org/</u>	YES
Galician Agrifood Sector DIHGAS	Dairy Production. Number of member organiza- tions: 50. (YES)	Universidad de Santiago de Com- postela: <u>www.usc.es/</u> AGACAL: <u>http://www.ciam.gal</u> <u>https://evega.xunta.gal/</u>	The rest of CCs have not been registered in the SAH IP
7.12 DINAPSIS DIH	https://www.dinapsis.es/dih- dinapsis/ Agriculture and ICT Technolo- gies. Agro and bio technolo- gies, TICs for agro, agrochemi- cal, fertilizers, phytopathology, pest control, microbiology, botany and ecology. Number of member organiza- tions: 12.	Universidad Miguel Hernández de Elche: <u>https://www.umh.es/</u> Fundación Universitas Miguel Hernández de la Comunitat Va- lenciana: <u>http://www.parquecientificoumh.es/</u> Universidad de Alicante: <u>www.ua.es</u>	CCs have not been registered in the SAH IP
7.13. Ecosistema W	http://conectoride.com/ Number of member organiza- tions: 34. (YES)	Not defined	CCs have not been registered in the SAH IP
7.14. FARM2030 – DIH in the agricul- ture sector in Por- tugal for R&I for sustainable and competitive farm- ing	http://consulai.com/in- dex.php?lang=en Number of member organiza- tions: 30. (YES)	INESC-TEC: <u>https://www.ulis-</u> <u>boa.pt/en</u>	YES The rest of CCs have not been registered in the SAH IP
7.15. HUB4AGRI (included in RC6 North-East Europe in the proposal)	http://hub4agri.com/ (YES)	Universidad de Évora : <u>http://www.uevora.pt/</u> UTAD Universidad de Trás-os-Mon- tes e Alto Douro:	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		https://www.utad.pt/ IPSantarém – Instituto Politécnico de Santarém: http://www.ipsantarem.pt Instituto Politécnico de Viana do Castelo: http://www.ipvc.pt/ IPB Instituto Politécnico de Bra- ganca: http://portal3.ipb.pt/in- dex.php/pt/ipb	
7.16. Hub 4.0 of Manufacturing Sec- tors in Valencia re- gion HUB4MANU- VAL	http://hub4manu- val.ai2.upv.es/es/dih-digital-in- novation-hub-en-la-comunidad- valenciana/	Universitat Politècnica de Valencia (UPV): http://www.upv.es/index-en.html Instituto de Automática e Infor- mática Industrial: https://www.ai2.upv.es/en/home-2/	CCs have not been registered in the SAH IP
7.17. Digital Inno- vation Hub for cus- tomer-driven man- ufacturing @NORTE (iMan Norte Hub)	https://www.iman- nortehub.com/ Digitalization, internet-of- things and robotics. Number of member organiza- tions: 7, representing 4,500 SMEs.	INESC TEC - Institute for Systems and Computer Engineering, Technol- ogy and Science: https://www.inesctec.pt/en Sectorial CC - CATIM - Technologi- cal Center for the Metal Working and Machinery Industry: http://www.catim.pt Sectorial CC - CITEVE - Technologi- cal Center of Textile and Clothing In- dustries of Portugal: https://www.citeve.pt Sectorial CC - CTCP - Technological Center of Footwear of Portugal: https://www.ctcp.pt Sectorial CC - CTCOR - Technologi- cal Center of Cork: http://www.ctcor.com	YES The rest of CCs have not been registered in the SAH IP
7.18. Industrial Technology knowledge DIH DIH-ITKL	http://dih-itkl.es/ Advanced Manufacturing. Number of member organiza- tions: 10. (YES)	CETEMET: <u>www.cetemet.es</u>	But registered as DIH, not as CC
7.19. Cluster Asso- ciation "Granada Plaza Tecnológica y Biotecnológica"	https://www.ongranada.com/ Technology (high degree of specialization in digital technol- ogies: Big data, cyber security, sensoring, artificial intelligence, automation, cloud computing, internet of things), biotechnol- ogy, e-health. Research, Devel- opment and innovation. Dy- namization and promotion of the technologies. Training, Pro- motion of entrepreneurship and funding. Number of member organiza- tions: 640. (YES)	University of Granada (UGR): http://www.ugr.es/ University of Málaga (UMA): https://www.uma.es/ Institute of Astrophysics of Andalusia (IAA-CSIC): https://www.iaa.csic.es/en Foundation Centre of Excellence for Research into Innovative Medicines in Andalusia. Medina, Andalusia Public Foundation for Biomedical Research in Eastern Andalusia: http://www.medinadiscov- ery.com/es/ FIBAO: https://www.fibao.es/ Granada Health Technology Park PTS: http://en.ptsgranada.com/	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		Cluster Andalucia smart City: http://www.andaluciasmartcity.com/ Association of Electronics, Infor- mation Technologies, Telecommuni- cations and Digital Content compa- nies (FAITEL): http://www.faitel.es/ Eurocloud Spain: https://www.eu- rocloudspain.org/ R&D Free Software Foundation Fidesol: https://fidesol.org/	
7.19. Digital Inno- vation Hub of La Rioja RIOHUB	RIOHUB http://www.ader.es/servi- cios/proyectos-euro- peos/riohub/ Regional implementation of in- novation digital manufacturing. Number of member organiza- tions: 7.	ADER: www.ader.es Direcciones Generales de Innovación Gobierno de La Rioja: https://www.larioja.org/innova- cion/es Agenda Digital del Gobierno de La Rioja: http://www.agendadigitalriojana.es/ Centro Tecnológico del Calzado de La Rioja: http://www.ctcr.es/ Centro Tecnológico de la Indus- tria Cárnica/ Industria Alimenta- ria de La Rioja: http://ctic-cita.es/ Agrupación Empresarial Innova- dora del sector TIC de La Rioja: http://aertic.es/ Econet Consultants: http://econet-consultants.com/es/	CCs have not been registered in the SAH IP (only Funding Box Company)
7.20. Technologies for Efficiency Digital Innovation Hub Extremadura – T4E	http://www.dih4e.eu/ Energy, Ecology, Equality, Economy. (YES)	University of Extremadura (UNEX): <u>www.unex.es</u> Cenits Supercomputing Centre: <u>www.cenits.es</u> AEXTIC: <u>www.aextic.com</u> CICYTEX: <u>www.juntaex.es</u> CTAEX: <u>www.ctaex.com</u>	CCs have not been registered in the SAH IP
7.21. DIH DATAlife (RC Progress Report)	https://www.dihdatalife.com/	Gradiant USC AGACAL	YES Registered as CC, IoT Technology Provider and as Knowledge institution / Research Community The rest of CCs have not been registered in the SAH IP
7.22 Digital Innovation Hub of the Balearic Islands for Artificial Intelligence and Tourism (DIHBAI- TUR) (RC Progress Report)	https://dihbai-tur.com/ DIH-BAITUR is a non-profit ini- tiative focused on tourism and promotes other strategic sec- tors, such as agriculture, aimed to boost the digital transfor- mation of companies Number of member organiza- tions: 4	Not defined	CCs have not been registered in the SAH IP

RC8. Regional Cluster 8 – Italy & Malta

Table 18 – CCs belonging to SAH DIH Catalogue – Italy & Malta

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
8.1. AgriFood Digi- tal Innovation Hub FVG AFdihFVG	http://www.parcoagroalimentar e.it/ (YES)	Università di Trieste: <u>https://www.units.it/</u> Università di Udine: <u>https://www.uniud.it</u>	CCs have not been registered in the SAH IP
8.2. AGRIDIGIT – Agricoltura Digitale	https://www.crea.gov.it/it (YES)	Not defined	CCs have not been registered in the SAH IP
8.3. The Industry 4.0 Platform of Tuscany Region Cantieri 4.0	http://www.cantieri40.it/ http://www.cantieri40.it/i40/ri- cerca laboratori.php (YES)	 Università di Firenze: https://www.unifi.it AGRISMARTLAB, autenticazione molecolare e caatterizzazione funzionale di matrici alimentari e bevande alcoliche. UNICESV, Centro Universitario di Ricerca per lo Sviluppo Competitivo del Settore Vitivinicolo DISPAA FOOD R&D LAB Laboratorio di Microbiologia PHYTOLAB: Laboratorio interdipartmentale di Tecnologia e Analisi di Preparazioni Vegetali di Interesse Farmaceutico, Alimentare e Cosmetico LOGISLAB Unità di Ricerca Interdipartimentale RI.T.R.A.TTO "Tutela e Valorizzazione del Made In Italy Università di Siena: https://www.unisi.it/ Biologia Farmaceutica, Cellulare e Molecolare Farmacologia Cardiovascolare e Dei Canali Ionici Laboratorio di Analisi Mieli e Prodotti Vegetali Laboratorio di Fitognosia CGT, Laboratorio di GIS e Cartografia Digitale Laboratorio di Scienze Agrarie, Alimentare Laboratorio di Micologia Università di Siena : https://www.unipi.it/ Dipartimento di Scienze Agrarie, Alimentare Laboratorio di Collaborative Robots Laboratorio di Spettroscopia di Risonanza Magnetica Nucleare CMR: https://www.cnr.it/ Istituto di Biometeorologia Laboratorio ARCA Scuola Superiore Sant'Anna : https://www.santannapisa.it/it 	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		 Instituto di Scienze della Vita 	
8.4 Cluster Tecno- logico Nazionale Agrifood CL.A.N	https://www.clusteraqrifood.it/ en/ (YES)	Tecnoalimenti S.C.p.A.: http://www.tecnoali.com/	Registered as CC and Farmer /Co- operative
		Università Cattolica del Sacro Cuore: https://www.unicatt.it/ Alma Mater Studiorum Università di Bologna: https://www.unibo.it/it Università degli Studi di Parma: https://www.unipr.it/ Università degli Studi di Pisa: https://www.unipr.it/ Università degli Studi di Pisa: http://www.unipr.it/ Università degli Studi della Tuscia: http://www.unipr.it/ Università degli Studi di Perugia: https://www.unipr.it/ Università degli Studi di Perugia: https://www.unipr.it/ Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile – ENEA: www.enea.it Consiglio Nazionale delle Ricerche – CNR: https://www.cnr.it/ Università degli Studi della Campania "Luigi Vanvitelli": https://www.unicampania.it/ Istituto di Scienze dell'Alimentazione – Consiglio Nazionale delle Ricerche: http://www.isa.cnr.it/web/ Università degli Studi di Padova: https://www.unipd.it/ Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria – CREA: http://sito.entecra.it/portale/index2. php Università degli Studi di Firenze: https://www.unifi.it/ Istituto Superiore di Sanità – ISS: https://www.uss.it/ Università degli Studi di Torino: https://www.uss.it/ Università degli Studi di Torino: https://www.uss.it/ Università degli Studi di Torino: https://www.izsum.it/IZSUM// Università degli Studi di Bari Aldo	The rest of CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		Moro: https://www.uniba.it/ Universita' degli Studi del Molise: https://www.uniroma1.it/it/paqina- strutturale/home Istituto Zooprofilattico Sperimentale del Piemonte Liguria e Valle d'Aosta: http://www.izsto.it/ Università degli Studi di Napoli Federico II: http://www.unina.it/ Stazione Sperimentale per l'Industria delle Conserve Alimentari – SSICA: http://www.sisca.it/ Università degli Studi di Modena e Reggio Emilia: https://www.unimore.it/ Biogem Scarl: http://www.biogem.it/ Università degli Studi di Camerino: https://www.unicam.it/ Centro Ricerca e Innovazione, Fondazione Edmund Mach: https://www.fmach.it/CRI Università Politecnica delle Marche: https://www.univpm.it/Entra/ Azienda Arcispedale Santa Maria: https://www.asmn.re.it/ Università Campus Biomedico di Roma: https://www.unicampus.it/ Università degli Studi di Milano: https://www.unisob.na.it/ Libera Università di Bolzano: https://www.unisob.na.it/ Libera Università di Bolzano: https://www.unis.it/ Università Campus Biomedico di Roma: https://www.unis.it/ Università degli Studi di Siena: https://www.unis.it/ Libera Università di Bolzano: https://www.unis.it/ Libera Università di Bolzano: https://www.unis.it/ Libera Università di Bolzano: https://www.unis.it/ Ecamricert s.r.l.: http://www.liberaliaformazione.it/por tale/ Cisita Parma Scarl: https://www.cisita.grama.it/ Consvip Scarl: https://www.cisita.grama.it/ Consvip Scarl: https://www.dimaesostenibilita.it/ Istituto Agronomico Mediterraneo di Bari Ciheam: http://www.labm2.it/ IAL Nazionale - Innovazione apprendimento lavoro S.r.l. Impresa Sociale: https://www.labm2.it/ IAL Nazionale - Innovazione apprendimento lavoro S.r.l. Impresa Sociale: https://www.labm2.it/	SAH IP
		Fondazione Area: https://www.fondazionearea.eu/ Accademia dei Georgofili:	

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		http://www.georgofili.it/ EXO Società Consortile arl: https://www.exo-ricerca.it/ Università degli Studi di Sassari: https://www.uniss.it/ Università degli Studi di Udine: https://www.uniud.it/ Agrifood Scarl Polo Innovazione Filiere Agroalimentari di Qualità: http://www.agrifoodnet.it/	
8.5. Associazione "Clust-ER Agroali- mentare"	https://agrifood.clust-er.it/en/	BIOGEST - SITEIA: www.biogest- siteia.unimore.it BIOPHARMANET-TEC: www.biopharmanet-tec.it BIODNA: http://centridiricerca.unicatt.it/biodn a CIRI AGROALIMENTARE: www.agroalimentare.unibo.it CIRI FRAME: www.energia- ambiente.unibo.it/ CIRI FRAME: www.energia- ambiente.unibo.it/ CIRI SDV: www.ciri-ict.unibo.it CIRI SDV: www.ciri-ict.unibo.it CIRI SDV: www.ciri-ict.unibo.it CIRI SDV: www.ciri-ict.unipr.it CIRI SDV: www.ciri-ict.unipr.it CIRI SDV: www.ciri-ict.unipr.it CIRI SDV: www.ciri-ict.unipr.it CIRACK: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.cipack.it COMT: http://www.istec.cnr.it/ CNR-ISTEC: http://crpalab.crpa.it CRPA LAB: http://crpalab.crpa.it CRPA LAB: http://crpalab.crpa.it CRPA LAB: http://www.lecop.enea.it TRACCIABILITA': http://www.geosmartlab.org/ INFN TTLAB: https://ttlab.infn.it/ LEA: http://www.leap.po- limi.it/leap/ MECHLAV: http://www.leap.po- limi.it/leap/ MECHLAV: http://www.redoxpro- getti.it/ ROMAGNA TECH: https://www.romagnatech.eu/centro -innovazione/ SITEIA.PARMA: www.siteia- parma.it SSICA: www.ssica.it/ TERRA&ACQUATECH: http://www.unife.it/tecnopolo/tat/ho me-1	CCs have not been registered in the SAH IP
8.6. DIGITAL INNOVATION HUB SICILIA DIH SICILIA	http://www.dihsicilia.it/ (YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
8.7. DIGITAL INNOVATION HUB TOSCANA DIH TOSCANA	https://www.confindustria.tosca na.it/digital-innovation-hub- toscana/ (YES)	Not defined	CCs have not been registered in the SAH IP
8.8. DIGITAL IN- NOVATION HUB BASILICATA DIHB	http://preparatialfuturo.confin- dustria.it/dih/basilicata/ (YES)	These DIHs are part of the Italian Industry 4.0 Network, so the CC list is shared among these DIHs: 1. Manufacturing 4.0 (Politecnico di Torino) 2. MADE (Politecnico di Milano) 3. BI-REX (Università di Bologna) 4. Artes 40 (Scuola Superiore Sant'Anna di Pisa) 5. SMACT (Università degli studi di Padova) 6. MEDITECH (Università degli Studi di Napoli Federico II) 7. Start 4.0 (CNR – Consiglio nazionale delle ricerche) 8. Cyber 4.0 (Università degli Studi di Roma "La Sapienza") These CCs have been created in Jan- uary 2019. They are not yet active and the website is not available.	CCs have not been registered in the SAH IP
8.9. FAST-Smart Agri Food Chain FAST	Operational group of EIP agri competences to implement the project. It is composed by 17 partners: 14 farms, an agricul- tural consortium, advisory com- pany of the agricultural sector, and 1 technology provider here considered as CC. This operational group is still waiting for the official evalua- tion and financing from the Pie- monte Region.	http://www.green-planet.it/in- dex.php/en/	CCs have not been registered in the SAH IP
8.10. Operational Group FILO	(YES)	Not defined	CCs have not been registered in the SAH IP
8.11. Operational Group FORTe	(NO)	Not defined	CCs have not been registered in the SAH IP
8.12. Operational Group TINIA – Pre- cision agriculture for small grain farms GO TINIA	Operational Group TINIA- Precision farming for small grain farms.	IBF: <u>https://www.ibfservizi.it/</u> Università di Firenze:	YES Registered as CC and IoT Tech Provider
		https://www.unifi.it	
8.13. H-FARM S.p.A. Italy	https://www.h-farm.com/it (YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
8.14. Operational Group Life Cycle Assessment LCA	(YES)	Not defined	CCs have not been registered in the SAH IP
8.15. Operational Group Livestock Smart Farming	(YES)	Not defined	CCs have not been registered in the SAH IP
8.16. DISTRETTO MECCATRONICO REGIONALE E DIGITAL INNOVATION HUB DELLA PUGLIA società consortile a responsabilità limitata MEDISDIH S.c. a r.l.	http://www.medisdih.it/wp/ (YES)	Politecnico di Bari: http://www.poliba.it/it Università degli Studi di Bari "Aldo Moro": https://www.uniba.it/ Università del Salento: https://www.unisalento.it/ CONSIGLIO NAZIONALE DELLE RICERCHE – CNR: https://www.cnr.it/ Politecnico di Torino: https://www.polito.it/ Centro Ricerche Fiat Scpa: https://www.crf.it/ CIHEAM IAMB - Mediterranean Ag- ronomic Institute of Bari: www.iamb.it MEDITECH Competence Center Pu- glia/Campania: (website still not available)	CCs have not been registered in the SAH IP
8.17. Operational Group MULTINET	(YES)	The institution itself	YES Registered as DIH and as CC
8.18. Paragon Eu- rope Ltd.	www.paraqoneurope.eu (YES)	Not defined	CCs have not been registered in the SAH IP
8.19. Operational Group RE.FOOD	(YES)	Not defined	CCs have not been registered in the SAH IP
8.20. Smart Agri Platform	(YES)	Not defined	CCs have not been registered in the SAH IP
8.21. SMILE - SMART MANUFAC- TURING INNOVA- TION FOR LEAN EXCELLENCE CEN- TER SMILE	https://www.smile-dih.eu http://smile.italian-dih.eu/ (YES)	Future Tehcnology Lab: http://www.cen- tritecnopolo.unipr.it/futuretechnolo- gylab	CCs have not been registered in the SAH IP

RC9. Regional Cluster 9 – South East Europe

Table 19 – CCs belonging to SAH DIH Catalogue – South East Europe

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
9.1. Digital Innova- tion Hub for imple- mentation of agri- cultural technolo- gies AGRITECH DIH	(YES)	Not defined	CCs have not been registered in the SAH IP
9.2. Alexandreio Innovation Center AIC – Central Mac- edonia DIH	https://staqing3.aqrobo- food.eu/hubs¢ers/alexan- dreio-innovation-center-aic- central-macedonia-dih/ (YES)	Not defined	CCs have not been registered in the SAH IP
9.3. GiSeMi Inno- vation & Entrepre- neurship HUB GiSeMi HUB	http://gisemi.gr/ (YES)	Not defined	CCs have not been registered in the SAH IP
9.4. Apipark aricilik uretim, Danisman- lik Egitim Islah, AR-GE, ITH IHR SAN, TIC A.S. APIPARK	(YES)	Not defined	CCs have not been registered in the SAH IP
9.5. Cluj IT Cluster (founding partner of Transilvania iHUB 4.0) (RO) Cluj IT	http://www.clujit.ro/ (YES)	Technical University of Cluj-Na- poca: <u>https://www.utcluj.ro/</u> University of Agricultural Sci- ences and Veterinary Medicine Cluj-Napoca: <u>http://usamvcluj.ro/</u> RedSharp: <u>http://www.redsharp.ro/</u>	CCs have not been registered in the SAH IP
9.6. CROBOHUB – Croatian Robotics Digital Innovation Hub (HR)	http://www.icent.hr/en/crobo- hub/ (YES)	University of Zagreb, Faculty of Electrical Engineering and Com- puting: <u>https://www.fer.unizg.hr/en</u>	CCs have not been registered in the SAH IP
9.7. Cyprus Digital Innovation Hub CyDI-Hub	https://www.cyric.eu/cydi_hub/ (YES)	Not defined	CCs have not been registered in the SAH IP
9.8 Digital Innova- tion Hub for devel- opment of big data based agricultural technologies	(YES)	Not defined	CCs have not been registered in the SAH IP
9.9. Digital Innova- tion Hub for imple- mentation of agri- cultural technolo- gies - Digital Inno- vation Hub for Ag- riculture and Food production	(YES)	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
9.10. Digital Inno- vation Hub for Ag- riculture and Food Production DIH AGRIFOOD	https://itc-cluster.com/ (YES)	Not defined	CCs have not been registered in the SAH IP
9.11. Digital Spaces Living Lab DSLL	https://www.digitalspaces.info/ (YES)	Not defined	CCs have not been registered in the SAH IP
9.12. Entrepre- neurial digitaliza- tion and technol- ogy advancements EDITA	(YES)	Not defined	CCs have not been registered in the SAH IP
9.13. Gaiasense DIH on Smart Farming (GR)	www.gaiasense.gr (YES)	Agricultural University of Athens: <u>www.aua.gr</u>	YES Registered as CC and as Knowledge institution / Research Community
		Plant production laboratory, DEAPT department, University of Patras: <u>http://www.deapt.upatras.qr/en</u> Department of Agricultural Tech- nology, Thessaloniki Technical University : <u>http://erasmus.teithe.qr/in-</u> <u>dex.php/en/studies/course-cata-</u> <u>loque/school-of-agricultural-technol- oqy-food-technology-nutrition/34-de-</u> <u>partment-of-agricultural-technology</u>	CCs have not been registered in the SAH IP
9.14. GEOSYS DIH	(YES)	Not defined	CCs have not been registered in the SAH IP
9.15. Internet of Things, Intelligent Systems and Media DIH [National Technical University of Ath- ens - Institute of Communication and Computer Sys- tems] IoT, Intelligent Systems and Media DIH	(YES)	Not defined	CCs have not been registered in the SAH IP
9.16. The Agribusi- ness IT Cluster mAgro (RO)	http://dom- ino.igm.ro/home.nsf/HomePage (YES)	Smart Research and Develop- ment International SRL: http://www.smartrdi.net/#page-top	YES

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
		IQ Management: http://dom- ino.igm.ro/home.nsf/HomePage CAISLEY International GmbH: https://www.caisley.de/ Megabyte Limited: http://www.megabyte.net/	Registered as CC and as IoT provider CCs have not been registered in the SAH IP
9.17. Transilvania Innovation Center (RO)	https://aries-transilvania.ro/ (YES)	Technical University of Cluj- Napoca: <u>https://www.utcluj.ro/</u> Universității Babeș-Bolyai: <u>https://www.ubbcluj.ro/ro/</u> INCDTIM: <u>http://www.itim-cj.ro/</u>	CCs have not been registered in the SAH IP
9.18. Treet Buba Tarim ve Tarim Teknolojileri A.S. TREET	(YES)	Not defined	CCs have not been registered in the SAH IP
9.19 AgroHub.BG	https://aqrohub.bq (YES)	Not defined	CCs have not been registered in the SAH IP
9.20 The National Association of Mill- ing & Baking In- dustries of Roma- nia (RC Progress Re- port)	http://www.anamob.ro/	Included in progress Report: Smart Research and Develoment International SRL: http://www.smartrdi.net/#page-top Agricloud: http://www.agricloud.ro/ (no CC) Naturevo: https://naturevo.ro/ (no CC) Alphablock: http://alphablock.org/ (no CC)	YES As CC and IoT Technology Pro- vider YES As IoT Technol- ogy Provider (not as CC) YES Without role (not as CC) YES As start-up (not as CC) NO
9.21. Ege Univer-	https://ege.edu.tr/eng-	Syswin: https://www.syswinsolu- tions.com	CCs have not
sity (RC Progress Re- port)	O/homepage.html no information on organization type (YES)		been registered in the SAH IP
9.22. Magrotech (RC Progress Re- port)	http://magro- tech.ru.com/?lang=en no information on organization type	Not defined	CCs have not been registered in the SAH IP

DIH	URL (registered as DIH)	Associated CCs [TBC]	Registered in SAH IP
	(YES)		

3.3 NEW COMPETENCE CENTRES REGISTERED IN THE SMARTAGRIHUB INNOVATION PORTAL

New CCs - Ireland & UK

Table 20 – New CCs - Ireland & UK

СС	URL	Comments	Registered in SAH IP
Breadboard Labs Ltd.	http://breadboardlabs.io/	WP5 has accepted as CC (fits the definition)	YES
Maynooth University National Centre for Geocomputation	https://www.maynoothuniversity. ie/national-centre- geocomputation-ncg	WP5 has accepted as CC (fits the definition) Registered as CC and Knowledge institution / Research Community	YES
Sundance Multiprocessor Technology Ltd	http://www.sundance.com	WP5 does not consider this organization as CC	YES
Eur Digital Village	http://www.eurdigitalvillage.com	WP5 does not consider this organization as CC	YES
Cillnua Innovation Funding Services	<u>https://cillnua.eu/</u>	WP5 does not consider this organization as CC Registered as Knowledge institution / Research Community	YES

Note on RC#1 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – Scandinavia

Table 21 – New CCs - Scandinavia

сс	URL	Comments	Registered in SAH IP
QRTECH AB	https://www.qrtech.se/	WP5 has accepted as CC although it has registered as DIH, CC and Tech provider	YES
SKIOLD A/S	https://skiold.com	WP5 has accepted as CC, although it has registered as CC and Tech provider	YES
Luke ISOBUS laboratory	https://www.luke.fi/isobus/	Linked to LUKE DIH (FIE 5)	NO (LUKE has registered)

New CCs – France

Table 22 – New CCs - France

сс	URL	Comments	Registered in SAH IP
Baoba	http://www.baoba.ag	WP5 does not consider this organization as CC	YES

Note on RC#3 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – North West Europe

Table 23 – New CCs - North West Europe

сс	URL	Comments	Registered in SAH IP
PhenoRob - Robotics and Phenotyping for Sustainable Crop Production	http://www.phenorob.de/	WP5 has accepted as CC, although it has registered as CC and as Knowledge institution / Research Community	YES Registered as CC and as Knowledge institution / Research Community
ZLTO - Zuidelijke Land- en Tuinbouworganisatie - Craftsmanship	https://www.zlto.nl/home	WP5 has accepted as CC although it has registered as DIH, CC, Sector Organization and IoF2020 use case	YES Registered as DIH, CC, Sector Organization and IoF2020 use case
Greenport Horti Campus as the Innovation organisation of the Greenport West Holland (GHC)	<u>https://greenportwestholland.nl/e</u> <u>n</u>	WP5 has accepted as CC although it has registered as DIH and CC	YES Registered as DIH, CC
Chamber of Agriculture Lower Saxony	http://www.lwk-niedersachsen.de	WP5 has accepted as CC	YES
ATB Institute for Applied Systems Technology Bremen GmbH	<u>http://www.atb-bremen.de</u>	WP5 has accepted as CC although it has registered as CC, Knowledge institution / Research Community and IoT Technology Provider	YES Registered as CC, Knowledge institution / Research Community and IoT Technology Provider
Awé groupe	http://www.awenet.be/	Included in the SAH IP. Not evaluated by WP5.	YES Registered as DIH, CC, NGO
CowSignals® Training Company	http://www.cowsignals.com	WP5 does not consider this organization as CC. Registered as Knowledge institution / Research Community, but appears in the CCs network	YES Registered as Knowledge institution / Research Community
Datafarmer	http://databoerin.nl	WP5 does not consider this organization as CC, registered as DIH &Farmer/Coop	YES Registered as DIH and Farmer/Coop,

сс	URL	Comments	Registered in SAH IP
			but appears in the network of CCs
Marketing Service Gerhardy		WP5 does not consider this organization as CC. Registered as DIH and Knowledge institution / Research Community, but appears in the CCs network	YES Registered as DIH and Knowledge institution

Note on RC#4 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – Central Europe

Table 24 – New CCs - Central Europe

СС	URL	Comments	Registered in SAH IP
Club of Ossiach	http://www.clubofossiach.org	WP5 has accepted as CC	YES
Plan4all z.s Research	https://www.plan4all.eu/	WP5 has accepted as CC, although it has registered as CC and as DIH	YES Registered as CC and DIH
DiplIng. (FH) Hubert Schrenk	http://www.smartmotions.at	WP5 does not consider this organization as CC. Registered as DIH and Sector organisation	YES/NO Registered as DIH and Sector organisation but appears in the network of CCs
Agricultural Education and Advisory Centre of the Canton of Thurgau (BBZ Arenenberg)	https://arenenberg.tg.ch/		YES
Josephinum Research (JR Wieselburg)	https://www.josephinum.at/	Registered as CC in the progress Report CE	Not registered in SAH IP
Maschinenring Österreich (MRÖ)	https://www.maschinen- ring.at/maschinenring-oesterreich	Registered as CC in the progress Report CE	Not registered in SAH IP
University of Natural Resources and Life Sciences (BOKU)	http://www.boku.ac.at/	Registered as CC in the progress Report CE	Not registered in SAH IP
R&D Raumberg-Gumpenstein	https://www.raumberg-gumpen- stein.at/cm4/de/forschung/re- search-development.html	Registered as CC in the progress Report CE	Not registered in SAH IP
Zuchtdata EDV Dienstleistungen	https://www.zar.at/Ueber- uns/ZuchtData.html	Registered as CC in the progress Report CE	Not registered in SAH IP

сс	URL	Comments	Registered in SAH IP
Landwirtschaftskammer Österreich	https://www.lko.at/	Registered as CC in the progress Report CE	Not registered in SAH IP
Czech Centre for Science and Society	http://www.ccss.cz/en	Registered as CC in the progress Report CE	Not registered in SAH IP
Czech Agriculture University	https://www.czu.cz/en/	Registered as CC in the progress Report CE	Not registered in SAH IP

Note on RC#5 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – North East Europe

Table 25 - New CCs - North East Europe

СС	URL	Comments	Registered in SAH IP
Kaunas University of Technology	<u>https://ktu.edu</u>	WP5 has accepted as CC	YES
Baltic Open Solution Center	https://bosc.lv/about		YES Without selecting organisation type (not as CC)

Note on RC#6 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – Iberia

Table 26 – New CCs - Iberia

сс	URL	Comments	Registered in SAH IP
Tekever (ES)		What has been registered in SAH IP is the FIE, also as CC and Sector Organisation, but not the associated CCs	YES/NO
CIESOL – Solar Energy Research Center (Centro de Investigación en Energía Solar) (ES)	http://www.ciesol.es	WP5 has accepted as CC	YES
ARM - Automatic Control, Robotics and Mechatronics Research Group (ES)	http://arm.ual.es	WP5 has accepted as CC	YES
Mabegondo Agricultural Research Center - Centro de Investigacións Agrarias de Mabegondo - Agricultural Research Centre of the Galician Administration	https://www.xunta.gal/portada	WP5 has accepted as CC	YES

Note on RC#7 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – Italy & Malta

Table 27 – New CCs - Italy & Malta

сс	URL	Comments	Registered in SAH IP
Eurac Research Center for Sensing Solutions	http://www.eurac.edu/en/researc h/technologies/CenterforSensingS olutions/Pages/default.aspx	WP5 has accepted as CC	YES Registered as CC, DIH and NGO

Note on RC#8 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

New CCs – South East Europe

Table 28 – New CCs - South East Europe

сс	URL	Comments	Registered in SAH IP
AgroHub.BG	https://agrohub.bg	WP5 has accepted as CC	YES Registered as CC and DIH
BEIA Consult International R&D Department	http://www.beia.eu	WP5 has accepted as CC	YES Registered as CC, IoT Technology Provider and Company
Fruit Knowledge Hub	https://www.icdp.ro/en- index.php?target=products- services	WP5 has accepted as CC	YES
ICDP Pitești-Mărăcineni Development	http://www.icdp.ro	WP5 has accepted as CC	YES Registered as CC and DIH
Bulgarian Association of Software Companies	http://www.basscom.org	WP5 has accepted as CC	YES Registered as CC and DIH
AlphaBlock Technologies Inc.	http://alphablock.org		As start-up (not as CC)
Agricloud	http://www.agricloud.ro/		As IoT Tech- nology Pro- vider (not as CC)
Naturevo	https://naturevo.ro/		YES

СС	URL	Comments	Registered in SAH IP
			Without role (not as CC)

Note on RC#9 new DIHs-CCs: Some new DIHs have not included their related CCs in the SAH IP.

3.4 POTENTIAL LIST OF CCS NOT INCLUDED IN DIHS/RCS AND COMING FROM OTHER FIELDS (AND RELATED INITIATIVES)

Table 29 – CCs not included in DIHs/RCs and from other fields

Full name	Short name	URL	Countries
I4MS	I4MS	https://i4ms.eu/dihs	
DIATOMIC (microelectronics industry)	DIATOMIC	https://diatomic.eu/in- dex.php/about-us/	DE
Smart AKIS	Smart AKIS	https://www.smart-akis.com/wp- content/uploads/2017/03/Smar- tAKIS_D3.1.Mapping-of-existing-net- works-dealing-with-SFT-across-Eu- ropepdf	
International Competence Center on Large Scale Agriculture	IAMO-LaScaLA	https://www.iamo.de/en/re- search/projects/details/lascala/	DE , CZ, NL, RU, AR, RO, USA, UA, KZ, BR
International Network Platform and Competence Center for Social Farming Multifunctional Agriculture in Europe - Social and Ecological Impacts on Or- ganic Farms	MAIE	http://www.maie-project.eu https://www.feeding- knowledge.net/home/- /bsdp/11148/en_GB	BG , GE, FI, NL, IT, PT
Competence Center for Agriculture		http://www.ra-vsz.hr/about-us- 89/projects/competence-center-for- agriculture/723	HR
International Competence Centre for Organic Agriculture	ICCOA	http://www.iccoa.org/	IN
Competence Centre ELIXIR	ELIXIR	https://wiki.eqi.eu/wiki/Compe- tence centre ELIXIR	FI , CZ, FR, NL, GR
Competence Center for Animal Sensor Technology	ANIMALSENSE	https://www.botnia-atlan- tica.eu/about-the-projects/project- database/animalsense-a-compe- tence-center-for-animal-sensor-tech- nology	SE , FI, NO
Zurich-Basel Plant Science Center	PSC	https://www.plantsciences.uzh.ch/en /aboutus.html	СН
Lower Saxony Agrifood Competence Center	NieKE	https://www.ernaehrung- swirtschaft.de/en/	DE
Sino-Italian Cooperation program for Environmental Protection towards Sus- tainable Development		https://sustainabledevelop- ment.un.org/partnership/?p=1629	IT, CN
Chinese-Israeli International Centre for Training in Agriculture	CIICTA	http://mfa.gov.il/MFA/mashav/Ar- chive/Pages/CIICTA-%20Chinese-Is- raeli%20International%20Cen- tre%20for%20T.aspx	CN-IL
Agria Academy		http://www.agriacorp.com/rd.asp?id =1	CN
National Engineering Research Center for Information Technology in Agricul- ture	NERCITA	<u>http://www.nercita.org.cn/Eng-</u> lish/nercita/zxjj/zxjj.asp	CN

Full name	Short name	URL	Countries
US Department of Agriculture	USDA	https://www.usda.gov/topics/re- search-and-science	US
SmartEEs competence centres (CEA, CPI, TNO, VTT, EUT, FHG, and IMEC)	SmartEEs	https://smartees.eu/application-ex- periments/#tab1	FI, NL, CZ, FR, UK, ES, DE
Competence Centers for Excellent Technologies	COMET	https://www.ffg.at/en/comet-compe- tence-centers-excellent-technologies	АТ
Competence Centre on Composite Indicators and Scoreboards	COIN	https://composite-indica- tors.jrc.ec.europa.eu/	
Competence Centre on Modelling	MODELS	https://ec.eu- ropa.eu/jrc/en/news/launch-commis- sion-competence-centre-modelling	
Protein Competence Center		https://www.pccre- search.nl/en/Home.htm	NL
VTT Technical Research Centre of Finland		https://www.vttresearch.com/	FI
FGE Fraunhofer Gesellschaft IPA		www.fep.fraunhofer.de https://www.ipa.fraunho- fer.de/en/expertise/digitools-for- manufact	DE
University of Ljubljana Competence Centres		https://www.uni-lj.si/re- search and development/euro- pean structural funds/compe- tence centres/	
NPO & SE Competence Center		https://www.wu.ac.at/en/npocompe- tence/	
TNO Competence Centre	TNO	http://www.horse-project.eu/TNO- Competence-Centre	NL
Competence Centre for Climate Change Mitigation and Adaptation		https://www.umweltbun- desamt.de/en/topics/climate-en- ergy/climate-change-adaptation/ad- aptation-tools/project-catalog/clima- competence-centre-for-climate- change	DE
Sustainable Intensification Research Network Centres for Agricultural Innovation – Agri-Tech Strategy	SIRN	https://sirn.org.uk/resources/industr y-and-innovation/centres-for- agricultural-innovation-agri-tech- strategy-2/	
Competence Center for Emerging Markets & Central and Eastern Europe		https://www.wu.ac.at/en/emcee/	AT

4. **DISCUSSION AND CONCLUSIONS**

In this second version of deliverable 5.2, a catalogue of Competence Centres has been composed, compiling various sources of information, fulfilling the main objective to catalogue a current status list of CCs in FIEs and DIHs.

The stated objective at the end of the SAH project is to identify and map more than 2000 CCs and this deliverable 5.2 has **524** potential CCs identified thus far, **63** of them have already registered in the SAH IP at the time this deliverable is released.

This document has also summarized the work that remains to be done by WP5 in the future with respect to the cataloguing of CCs. The main follow-up actions will comprise:

- Continuous and structured feedback from RCs and DIHs, coordinated with WP3, to contribute to, correct or modify the data included in this document and complete data signalled in grey colour herein. Many of the DIHs are in progress or in the process of consolidation and we expect that information will evolve and become more complete as DIHs mature. Moreover, this deliverable will continuously be updated with the new information included in the SAH IP.
- Basic categorization of technologies (D5.1) to allow matchmaking in the dynamic mapping tool that will be available in the SAH IP. Once an initial representative number of CCs enter their competences and/or systems (technological solutions involving several technologies), a clustering analysis will be carried out to categorise all the technologies entered as free keywords by the CCs. This will allow standardisation at SAH IP portal and matchmaking. In this way, the remaining CCs will select the technologies from a catalogue and not including them as free texts.
- Coordination with WP4 regarding the information to be shown in the SAH IP with respect to CCs and DIHs.
- White-spot analysis (D5.3)
- Analysis of non-agri CCs with potential to provide competences for the agri-domain.

With these actions and the use of the SAH IP, WP5 will fulfil the objective of having more than 2000 CCs registered at the end of the project.