





Digital Innovation Hubs Federation For Large Scale adoption of digital technologies by European SMEs

DIH and EDIH Booklet





Executive Summary

The present document compiles and presents a concise description of 25 DIHs and EDIHs from 14 European countries in the DigiFed DIH-ecosystem, for the purpose of facilitating and fostering concrete collaboration between these structures. This network has been built throughout the running of the project and is based on different levels of collaboration between these (E)DIHs and the DIHs within the DigiFed-consortium.

A subset of the (E)DIHs have contributed to the DigiFed-Final Event by means of participating in the DIH-pitching session, providing a keynote and panel discussion, and taking part in the speed-dating DIH-matchmaking activity during the 30th of November. Additional material related to their specific participation is referenced in the corresponding sections of the booklet.

The booklet closes with a display of the geographical coverage of the DigiFed DIH-ecosystem.



Introduction and context

The DigiFed-Innovation Action DigiFed gathers 12 partners with expertise in Digital technologies and innovation management from different countries, an established ecosystem, and a view to continue expanding and linking with other networks to create an EU-wide Federation of Digital Innovation Hubs. DigiFed aims to strengthen a European high-tech ecosystem through the fostering and adoption of advanced digital technologies, particularly cyber physical and embedded systems, by start-ups and SMEs as well as fostering collaboration between such companies with large corporates.

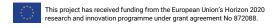
To achieve this objective, DigiFed has developed and experimented with different instruments, the so-called DigiFed-Innovation Pathways, and developed an extended network of DIHs across Europe to rely upon. Moreover, these instruments have been documented and prepared¹ to be offered to the DigiFed-network of DIHs as B2B products that may be implemented in a collaborative setting.

The first step to achieve this type of concrete collaboration is to identify and understand the objectives, technological focus, economic sectors, challenges, and collaboration priorities of this DIH-network. Hence, the objective of this booklet is to document this information and facilitate opportunities for collaboration within this network.

It is worth noting that many of the DIHs and European-DIHs (EDIH) presented in this booklet have actively collaborated with the DigiFed-project during its running time in different ways, from networking to joint-application for projects and so on. Furthermore, some of the DIHs and EDIHs in the booklet have also participated in the DigiFed-Final Event² as keynotes and panellists, but most notably, as speakers in the Pitching-Session to foster DIH-collaboration. Thus, the references to the corresponding DIH-pitch presentations can also be found in this booklet.

Thus, the DigiFed-DIH and EDIH Booklet compiles concise information of 25 (E)DIHs in the DigiFed-ecosystem, including key contact persons such that collaboration is facilitated. These (E)DIHs come from different regions in 14 countries in Europe, i.e. Austria, Bulgaria, Croatia, Finland, France, Germany, Greece, Hungary, Italy, Slovenia, Slovakia, Spain, The Netherlands and the United Kingdom, in addition to several African regions covering economic sectors such as manufacturing, energy and utilities, agriculture, health, biotechnology, and many others including their sub-branches of specialization.

² https://digifed.org/wp-content/uploads/2023/01/DigiFed-Information-Package_v4.pdf



¹ https://digifed.org/event/digifed-final-event-showcasing-your-innovation/



DIHs and EDIHs in the DigiFed Ecosystem

(E)DIH INNOVATE



Anna Katharina Beyer Project Manager (E)DIH INNOVATE anna.beyer@dihinnovate.at www.dih-innovate.at

Technological focus: Al (e.g. robotics, computer vision, automation), CPS (e.g. digital twins, smart industry, IoT), and advanced digital skills (big data analytics, forecasting, AR/VR etc). **Economic sectors**: Food and agriculture, forestry, wood processing industry, energy.

Flagship service: Prototyping, ideation, trend scouting, accelerator programs, digital maturity assessment, experimentation infrastructure, trainings, funding support.

Foreseen challenges: Impact creation, time constraints within target groups, building trust, data access, language barriers, access to target groups.

Interests and requirements for collaboration: cross-sector and cross-country collaborations, expanding the EU-network for collaboration and SME support activities (e.g. match-making).

Region of operation: Austria and Europe

4PDIH



Jure Trilar 4PDIH Lead 4PDIH iure@4pdih.com

Technological focus: Al, IoT, blockchain, cybersecurity.

Economic sectors: Agriculture, public sector, education, manufacturing, tertiary services. Flagship service: Municipalities data tools, IoT in agriculture, blockchain prototyping, funding and innovation support, democratization, and ethics of technology.

Foreseen challenges: Funding, staff Interests and requirements for collaboration: Joint tenders and co-funding calls, technology, and practices exchange.

Additional information: Pitch presented at DigiFed-Final Event. Slides available **here**. 4P



Region of operation: Ljubljana and Slovenia

DIH and University of Ljubljana are part of the DigiFed consortium.

AEDIB | NET



Patrik Schumacher Project Consultant Steinbeis Europa Zentrum patrik.schumacher@ steinbeis-europa.de

Technological focus: All kinds of digital innovation in the four main economies: Climate Smart Agriculture, Smart Cities, Digital Trade and Clean Tech.

Economic sectors: Climate Smart Agriculture, Smart Cities, Digital Trade and Clean Tech.

Interests and requirements for collaboration:
African-European collaborations between
African and European DIHs.

Additional information: Network of 11 African DIHs. Keynote speaker at the Panel "Capacity building and EDIH collaboration" at DigiFed-Final Event. Slides available here. AEDIB | NET project partner SEZ is part of the DigiFed consortium



Region of operation: Africa



AEDIH - AGRICULTURAL EDIH



István Balla **Managing Director AEDIH** aedih@gak.hu

Technological focus: Al, advanced digital skills, digital technology deployment

Economic sectors: Agriculture and agroindustry Flagship service: Digital maturity road mapping, investment planning, digital skills development through advanced training.

Foreseen challenges: The digitalisation level of the main target group (agricultural enterprises) is quite low. Personal tutoring services.

Interests and requirements for collaboration:

Sharing of experience and good practices, joint support actions for target groups especially through cross-border cooperation and joint events, networking, joint project development for cross-cutting topics.



AICS-EDIH



Meike Reimann **Senior Project** Manager Steinbeis Europa Zentrum Meike Reimann meike.reimann@ steinbeis-europa.de

Technological focus: Al, Cyber Security, Advanced Digital Skills.

Economic sectors: Production and manufacturing, energy and utilities, mobility, commerce and related services, administration, and municipalities.

Interests and requirements for collaboration: Sharing of testing facilities and infrastructure, support to find investment, access to strategic technologies, increasing market/technology access to its SMEs in specific areas, knowledge exchange.

Additional information: Keynote speaker at the Panel "Capacity building and EDIH collaboration"

Region of operation: Baden-

Württemberg, Germany

at DigiFed-Final Event. Slides available here. AICS-EDIH and SEZ are part of the DigiFed consortium.

ARTES5.0



Antonio Lionetto Networking Artes5.0 antonio.lionetto@ artes4.it

Technological focus: Artificial intelligence, Robotics, human centred transfer of technology innovation and safety culture

Economic sectors: Different focuses on base of local context on the territory; Manufacturing (process smartness and product innovation), transportation, nautical, logistics, agriculture, well-being, health, etc.

Flagship service: Robotics applications, Al, exploitation of technology to reduce the number and severity of accidents at work, and to improve occupational safety and health.

Foreseen challenges: Be a key resource within EDIH-network to locally nurture and achieve the

Region of operation: National coverage of Italy

objectives of the Green Deal and Digital European Programme.

Interests and requirements for collaboration: Exploit Mediterranean synergies and interact with (E)DIHs with complementary skills at European level.

Additional information: Network of DIHs operating in Italy. Pitch presented at DigiFed-Final Event. Slides available here. ST Microelectronics is part of the DigiFed consortium.



BASQUE DIGITAL INNOVATION HUB



Xabier Eguiluz Researcher & Project Manager IKERLAN xeguiluz@ikerlan.es

Technological focus: Smart and connected machines, Cybersecurity, Digital electricity networks. Also: Additive manufacturing, Flexible robotics, medical devices and digital health, Advanced materials and Data driven solutions. **Economic sectors**: Manufacturing, energy, health, robotics.

Interests and requirements for collaboration: Facilitate networking and integration, participate in common projects dedicated to EDIHs, Implementation of long term or one-off partnerships with other EDIHs, organization of workshops and events.

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Region of operation: Basque Country, Spain

Additional information: IKERLAN is part of the DigiFed consortium.

BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS, BME-EET-DIH



Ferenc Ender Senior Project Manager ender.ferenc@vik.bm e.hu http://dih.eet.bme.hu

Technological focus: Micro/nano electronics, reliability testing, CPS, simulation, modelling, and digital twins.

Economic sectors: Agriculture and food, energy and utilities, life sciences & healthcare.

Foreseen challenges: Local SMEs have limited knowledge of BME-EET-DIH-services. Main challenges are to strengthen cooperation with local SMEs, educate them and facilitate a higher level of integration with the forming EDIH organization in the region.



Region of operation: Hungary

Interests and requirements for collaboration: Sharing infrastructure and services with other DIHs and EDIHs in the region, organizing a viable ecosystem which offers a wide range of services for SMEs from test-before-invest to pilot manufacturing services.

Additional information: BME is part of the DigiFed consortium.

DANTE EDIH - ITALY



Marcello Dorian Donzella General Manager SMILE mdonzella@ me.com https://www.danteedih.it/

Technological focus: Al, Cyber Security, High Performance Computing.

Economic sectors: ICT, Health, Construction, Electronics, Social services.

Flagship service: Application of AI, CS, HPC for "Healthy, Active and Smart Life" including: (i) Test before investing services, (ii) Skills and training services, (iii) Support to find investments services, (iv) Innovation ecosystem and networking services: Support to stakeholders (public authorities, SME, patients/caregivers).

Foreseen challenges: Management of a complex group of partners: Clusters, technological districts, universities, public and private partners.

Region of operation: National coverage of Italy

Interests and requirements for collaboration: Developing capabilities in High Performance Computing, Artificial Intelligence, Cybersecurity, and Advanced Digital Skills, to spread the best use of technologies in the world.



DIGITAL CATAPULT



Linda Ligios Senior Innovation Partner Digital Catapult linda.ligios@ digicatapult.org.uk

Technological focus: Al, machine learning, IoT, 5G, cybersecurity, distributed ledger technologies and distributed solutions, quantum computing, etc.

Economic sectors: Aerospace & defence, transport & infrastructure, energy, manufacturing, and others.

Flagship service: FutureScope accelerators, digital challenges, Ecosystem mapping, Business case analysis, Innovation Strategy consulting; Technical consulting, PoC development; experimentation with new network and communication technologies, performance evaluation and benchmarking.

Foreseen challenges: Resource availability and complementarity, defining legal framework in



alignment with UK Law, agreeing on a shared environment for communication on opportunities and guidelines for working, nomination a champion for each region Interests and requirements for collaboration: Collaboration with other EDIHs to expand our ecosystem reach and impact, leveraging national startup/SME innovator ecosystems and industry connections, or cutting-edge technical facilities.

Additional information: Pitch presented at DigiFed-Final Event. Slides available here. Digital Catapult is part of the DigiFed consortium.

DIH AGRIFOOD CROATIA



Matija Bumbak DIH Manager DIH AGRIFOOD CROATIA matija@agrifoodcroat ia.com

Technological focus: Al, IoT, blockchain, sensorics, underwater robotics.

Economic sectors: aquaculture, fisheries health, agrifood, biosciences.

Flagship service: Living lab at the Croatian coast to test solutions in real sea and freshwater environments (ports, ships, aquaculture, rivers, etc.).

Foreseen challenges: Improving the aquaculture and land farming sectors with applicable, robust, and affordable technologies to sustainably feed the humanity.

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Region of operation: Croatia

Interests and requirements for collaboration: Project collaboration and knowledge/technology transfers between stakeholders in the food and aquaculture sectors.



DIH-BIO



Aurora Holgado Project Manager DIH·bio Aurora Holgado aurora.holgado@ emprende.uam.es

Technological focus: Al & Big Data, Bioinformatics, Cybersecurity.

Economic sectors: Bio & Health including all sub-sectors, i.e. biotechnology, biosciences, food/nutrition for health, health system, education.

Flagship service: Bioinformatics and biostatistics, Al and Big Data applied to health sector (biotechnology, Hospital management, drug discovery, etc.), proof of concept for e-Health solutions in hospital & pharmacy environments, medical record management and



Region of operation: Madrid

others related to Health Data Lake, nutrition and health (clinical trials, human genotyping, ...), networking for quadruple-helix players in Health sector, training in digital technologies applied to health, entrepreneurship for science-based start-ups.

Foreseen challenges: Academia-company cooperation, open innovation between competitors and collaborators, funding, and entrepreneurship.

Interests and requirements for collaboration: (i) Development of projects related to the application of digital technologies on Health & bio in a wide scope; (ii) Entrepreneurship and Skills on Health & bio-sector, (iii) Building a strong partnership and network between DIHs with focus on Health.

Additional information: Pitch presented at DigiFed-Final Event. Slides available here.

DIH4CAT



Yuri Murillo, PhD Strategic Projects Lead i2CAT yuri.murillo@i2cat.net

Technological focus: Smart connectivity, AI and cybersecurity, photonics.

Economic sectors: Telecommunications, mobility, energy and utilities, manufacturing, agriculture, and food.

Flagship service: Digital maturity assessment, concept validation and prototyping, awareness creation, collaborative research, mentoring and education and skills development.

Foreseen challenges: Integration with the European ecosystem, impact creation and positioning.



Region of operation: Catalonia

Interests and requirements for collaboration: Collaboration with other EDIHs on creating a shared service for transversal technologies, impact creation in the regional/national/European levels and integration in a same ecosystem, not a sum of different, smaller, ecosystems.

Additional information: Pitch presented at DigiFed-Final Event. Slides available here.



DIHNAMO - DIGITAL INNOVATION HUB NORMANDY ADVANCED MOBILITY



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European Project
Manager
Pôle TES
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pole-tes.com

Technological focus: Al, HPC, Cybersecurity **Economic sectors**: Mobility (autonomous, safe, and connected), industry of the future, Smart city (Digital health, Agri-tech).

Flagship service: Development of new technological solutions to prefigure the mobility of the future by combining the strengths and capacities of DIHNAMO's territory of action with the large network of EDIHs putting mobility and digital technologies at the service of an entire ecosystem and meet environmental challenges. Foreseen challenges: In mobility and digital



Region of operation: Normandy

transition: secure acceptance/trust; avoid gender issues; considerate legal aspects and data privacy; assess and ensure social and economic impacts.

Interests and requirements for collaboration: Network expansion and strong collaborations: events, workshops, common services, knowledge sharing and exchange of best practices, linked to mobility and related topics (smart city, etc.). **Additional information**: Pitch presented at DigiFed-Final Event. Slides available **here**.

EDIH BRETAGNE



Thomas Lainé
European Project
Manager
Bretagne
Développement
Innovation

Technological focus: Cybersecurity, artificial intelligence, networks.

Economic sectors: Maritime, industry, health, agrifood, digital.

Flagship service: Cybersecurity, AI diagnosis, test beds and trainings.

Foreseen challenges: Making the offer intelligible for our customers (in a dense existing digital innovation ecosystem). Centralize information to allow an efficient follow up of all clients and to propose adapted and timed solutions and services.



Region of operation: Bretagne

Interests and requirements for collaboration: Joint matchmaking sessions, webinars, study visits.

Requirements: Agreeing on a scheme to send / receive entities from other regions. Additional information: Pitch presented at DigiFed-Final Event. Slides available here.



EDIH DIHNAMIC



Léa Lemarié European Project Manager Alpha-RLH I.lemarie@ alpha-rlh.com +33 6 03 48 38 73

Technological focus: AI, HPC, Cybersecurity. **Economic sectors**: Manufacturing with a human centric and sustainable approach, SME.

Flagship service: Assess the relevance of advanced Industry of the Future technologies for companies' transformation and innovation projects. Make the advanced technologies of the industry of the future accessible to enable their appropriation by companies and to help them carry out tests and trials. Training to enable the acquisition of new skills. Support companies to integrate digital technologies and innovation.

Interests and requirements for collaboration: Access to testing facilities for SMEs, long-term sessions, and trainings, train the trainer sessions, facilitate networking and integration, Region of operation: Nouvelle

Region of operation: Nouvelle-Aguitaine

participation in EDIHs-related projects, implementation of long term or one-off partnerships with other EDIHs, organization of workshops and events.

Additional information: Pitch presented at DigiFed-Final Event. Slides available here.

EDIH EXPANDI 4.0



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General Project
Manager
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Slovak Innovation
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siea.gov.sk

Technological focus: Industry 4.0, manufacturing, cybersecurity, logistics, education.

Economic sectors: Manufacturing, robotics, cybersecurity, energy efficiency.

Flagship service: From DMA and Cybersecurity assessment, through laboratory and experimental concept validation, prototyping and data management consulting and advisory, to digital product design.



Region of operation: Slovakia

Foreseen challenges: Raise awareness of the potential and value of using technology and new approaches in manufacturing. Simplification and streamlining of access to resources, infrastructure, expertise, and services for SMEs.

Interests and requirements for collaboration: Long-term partnerships of EDIHs of similar focus within the Central European region, exchange of experiences and best practice, exchange of SMEs and exploration for cooperation within the EU.

EDIH HEALTH HUB



Maria Pournari COO EDIH Health Hub mpournari@ied.eu

Technological focus: AI, advanced digital skills. Economic sectors: Health, digital health, pharma. Flagship service: Digital maturity assessment, AI applied to the health and pharma sector and to personalised medicine, entrepreneurship in digital health related companies, tech-watch, tailor-made trainings in digital skills.

Foreseen challenges: Efficiently connecting a complex and multidisciplinary network of stakeholders, effective engagement of the local and national SMEs of multiple digitalisation levels. Interests and requirements for collaboration:



Region of operation: Thessaly and Greece

Practical collaboration among EDIHs and exploration of complementarity to strive in EU's digitalisation.



EDIH ZAGORE



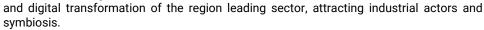
Dr. Rumyana Grozeva
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Technological focus: Mechatronics and clean technologies, health and life science, digitalization, and cybersecurity.

Economic sectors: Clean energy and green hydrogen production, human and veterinary healthcare, SMEs, Public Sector.

Flagship service: Test-before-invest of innovative green and digital solutions; Digital advanced skills and training; Support to find investments to SMEs, mid-caps, start-ups, entrepreneurs; Networking and access to innovative ecosystems via individual services per 'customer' and open public events.

Foreseen challenges: Decarburization, twin green



Interests and requirements for collaboration: Joint activities, events, workshops, projects, knowledge and technologies sharing with other (E)DIHs across Europe to establish strong partnership and bring the latest innovative technologies and practices.



Region of operation: Stara Zagora, Sliven, Yambol, Burgas, Bulgaria

MANUFACTURING TECHNOLOGY CENTRE



Nuno Martins Economic Development THE-MTC nuno.martins@ the-mtc.org

Technological focus: Modelling and simulation, metrology and non-destructive testing, smart connectivity, high-value design, laser/advanced materials processing, robotics & automation, additive manufacturing, etc. MTC is also the National Centre for Additive Manufacturing in the UK.

Economic sectors: Aerospace, defence & security, construction, infrastructure, food & drinks, healthcare, power & energy, E-mobility.

Flagship service: Technology process development, quality assurance, skills & workforce development, digital accelerator/scale up programmes, etc.

Foreseen challenges: Achieving economies of scale to sustain the provision of digitally

Region of operation: United Kingdom

enabled business incubation services. Establishing partnerships with private financing organisations for testbeds and digitally enabled simulation environments.

Interests and requirements for collaboration: Strong partners to complement advanced manufacturing offerings, preferentially with strong industrial applications.



MINASMART



Pierre-Damien Berger Director MinaSmart-EDIH Europe

Technological focus: Cybersecurity, AI (edge), high performance computing.

Economic sectors: Energy, health, transportation & smart mobility, chemistry and environment, agri-tech & food-tech, textile.

Foreseen challenges: Engagement with "traditional" SMEs that do not exploit the potential of digital technologies. MinaSmart supports its members on a daily basis in terms of innovation and business development.

Interests and requirements for collaboration:



Region of operation: Auvergne-Rhone-Alpes, France

MinaSmart is looking for thematic and geographic variety and complementarities.

Additional information: Keynote speaker at the Panel "Capacity building and EDIH collaboration" at DigiFed-Final Event. Slides available here. Minalogic BME is part of the DigiFed consortium.

POLYTRONICS



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European Affairs and
Interclustering
Projects Manager
POLYMERIS
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Technological focus: Artificial intelligence, smart polymers materials, smart systems.

Economic sectors: Manufacturing, agroindustry & food (packaging), energy efficiency, health.

Flagship service: Products innovation: smarter plastic with improved functionalities or printed intelligence (plastronics).

Foreseen challenges: Specification towards the polymer manufacturing industries and reaching out to a large number of SMEs.

Interests and requirements for collaboration:
Joint activities with other fields of materials
(metal, wood...) and other technologies
(cybersecurity, high performance computing...).



Region of operation: Bourgogne-Franche-Comté, Auvergne-Rhône-Alpes, Centre Val-de-Loire, Paysde-la-Loire, Ile-de-France, France

Additional information: Network of DIHs operating in Italy. Pitch presented at DigiFed-Final Event. Slides available here.

SIX MANUFACTURING EDIH



Harri Nieminen Head of SIX Initiative VTT harri.nieminen@ vtt.fi

Technological focus: Advanced manufacturing technologies, data sharing and data analytics capabilities, AI, and Cybersecurity in Smart Industry.

Economic sectors: Discrete manufacturing industry.

Flagship service: Fostering green and digital transition of manufacturing SMEs in an industry-driven way. Core of operations and seamless service journey includes solutions for twin transition related challenges faced by SMEs.



Region of operation: Finland

Foreseen challenges: Funding (Seal of Excellence status) and in parallel scaling up the operations.

Interests and requirements for collaboration: By networking with other EDIHs, developing together capabilities and digital skills in advanced manufacturing technologies, data, AI, and Cyber Security for especially manufacturing SMEs; participating in common projects dedicated to EDIHs and their customers; and arranging joint workshops and train the trainer sessions.



TECHNOLOGICAL RESEARCH INSTITUTE IRT NANOELEC



Philippe Michallon philippe.michallon@ cea.fr https://irtnanoelec.fr/ en/ **Technological focus**: Cybersecurity & technologies for connected objects, photonic sensors, new generation displays and smart image sensors, energy conversion.

Economic sectors: Industry and infrastructures, transportation and environment, health.

Flagship services: Concept validation and prototyping, collaborative research, technology transfer and valorisation, education and skill developments.



Region of operation: Auvergne-Rhône-Alpes, France

Foreseen challenges: To bring out innovations in future economic sectors through balanced public-private strategic partnerships.

Interests and requirements for collaboration:

Help businesses in the field of ICT meet the challenges of IoT and digital trust and security. Promote cooperation between SMEs, mid-caps, and large companies. Collaborative innovation to unveil new applications.

Additional Information: CEA is part of the DigiFed consortium.

WAGENINGEN DIGITAL INNOVATION HUB FOR AGRI-FOOD



Senior Scientist
Digital Innovation in
Agri-Food
Wageningen
Economic Research

Technological focus: Data Science and Al, Agri-Food Robotics, Testing and Experimentation Facility.

Economic sectors: Agricultural Production, Food Processing, Food Consumption.

Foreseen challenges: Build data-driven innovation ecosystems that deliver business solutions through digital data to address the grand challenges of producing healthy and sustainable food.

Interests and requirements for collaboration: How to (1) connect the dots between EDIHs with



Region of operation: Wageningen, The Netherlands

an agri-food interest; (2) match public and private funding at regional, national, European, and global level.

Additional information: Introductory presentation available here.



Geographical distribution of DIHs and EDIHs

Here you will find the location of the DIHs and EDIHs across Europe according to their economic sectors³.

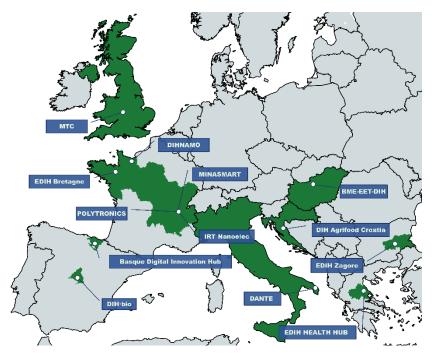


Figure 1. (E)DIHs in the DigiFed-ecosystem with health and health-related industries as economic sector of focus.

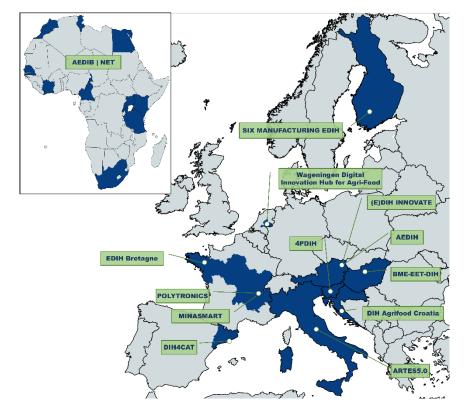
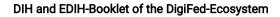


Figure 2. (E)DIHs in the DigiFed-ecosystem with agriculture and related industries as economic sector of focus.

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³ The most referenced Economic Sectors have been selected, i.e agriculture related industries and sectors, health industry and sector, manufacturing, and energy and mobility sectors. For further details, please visit the individual entries in the booklet.



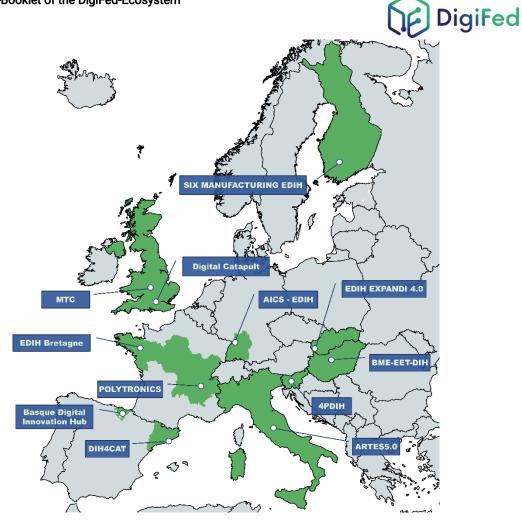


Figure 3. (E)DIHs in the DigiFed-ecosystem with manufacturing as economic sector of focus.

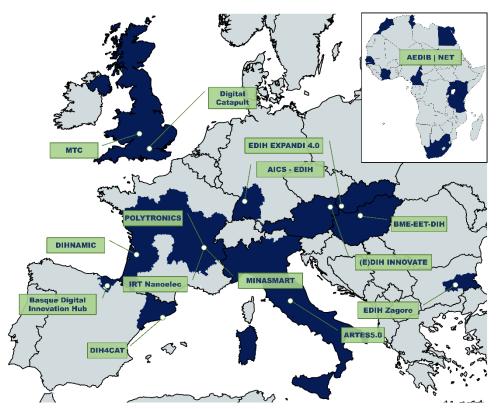


Figure 4. (E)DIHs in the DigiFed-ecosystem with energy and related industries as economic sector of focus.