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D6.1. Map of core and indirectly involved actors

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Project Duration	**48 months**
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RV0.5	1.7.2020	Edits for partner short names, and finalization	M. Lanz (TAU)

DISSEMINATION LEVEL

PU	Public	x
PP	Restricted to other programme participants (incl. Commission Services)	
RE	Restricted to a group specified by the consortium (incl. Commission Services)	
CO	Confidential, only for the members of the consortium (incl. Commission Services)	

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CO	Confidential, only for the members of the consortium (incl. Commission Services)
GA	Grant Agreement
CPS	Cyber-physical system
SME	Small and Medium-size Enterprise
LE	Large Enterprise
WP	Work Package
DIH	Digital Innovation Hub
IoT	Internet of Things
ICT	Information and Communications Technology
R&D	Research and Development
R&I	Research & Innovation
RDI	Research, Development and Innovation
FoF	Factories of the Future
OEM	Original Equipment Manufacturer
TRL	Technology Readiness Level
RTO	Research and Technology Organisations
AI	Artificial Intelligence
HPC	High Performance Computing

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1 Introduction

This document is the output of Task T6.1 in WP6 "Mapping of core and indirectly involved actors". The objective of this report is to provide foundation for the overall WP6 objective – business planning and network sustainability. Catalogue of involved actors and their services will serve as a benchmark for business plan creation, potential monetization of services and competences, capitalization on the planned demonstrations and definition of overall consortium capacity in regards to the beneficiaries (customers). Despite services this "who is who" identification process defines value chain implications, market sectors covered and technological specialization.

This report is tightly related to the other activities to be performed within WP6 scope of work. A more detailed roadmap of activities is provided in the Figure 1 below.

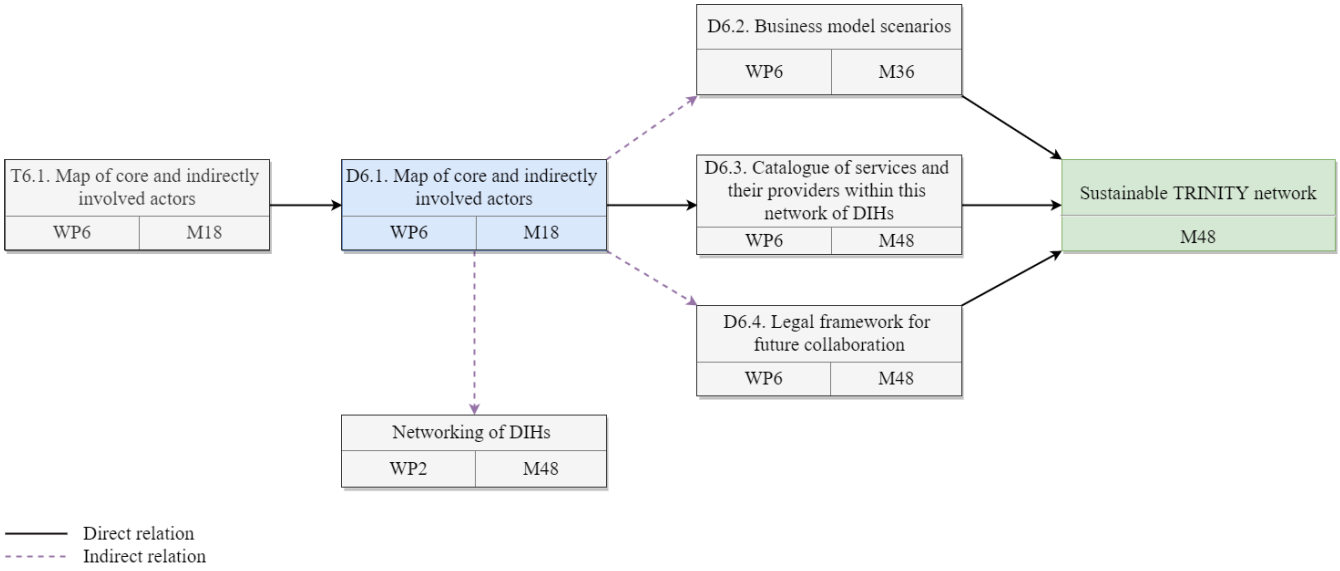

Figure 1. Roadmap of activities related to D6.1.

We can also see links and synergies between D6.1. and WP2 "Networking of DIHs". When establishing a network, it is essential to identify unique competences and services that project partners in this project offer and which are worth to be integrated into the existing European networking environment. The catalogue will provide a quick and intuitive basis for specific partners or services identification.

The report is divided into two main parts:

1. Overview of the whole consortium including an aggregated table of services (Section 2: An overview of TRINITY consortium). With an overview of the consortium we aim to define the overall capacity in terms of available services, expertise and geographical scope. It is important to remark that lists of services provided further in the document do not represent services, which partners are going to provide for the beneficiaries. It is only to outline the capacity, define areas where the project might be lacking and serve as a benchmark for further activities (e.g. D6.3. Catalogue of services and their providers within this network of DIHs).

Individual profiles (Section 3:

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2. Consortium partner profiles) of each partner including:
    a. Short descriptions about each partner;
    b. Main facts about them (e.g. working languages, customers, etc.);
    c. Individual tables of services provided and demanded.

With the multifaceted scope of TRINITY project, this report, especially section "3 Consortium partner profiles" will be greatly beneficial for internal use to easily find information about partners of interest, check their specialization and expertise and thus provide foundation for successful future collaborative work. Finding the right partners is of prime importance in order to establish viable partnerships for different customised projects (e.g. topical webinars, workshops, knowledge exchange, etc.) and other new opportunity ventures.

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2 An overview of TRINITY consortium

When dealing with the collaborative network concept with an objective of being sustainable, multidisciplinary and synergistic between local digital innovation hubs (DIHs) composed of research centres, companies, and university groups covering a wide range of topics, it is crucial to define and describe the consortium and its capacity. The overview provides valuable insights into areas of expertise, geographical and technological scope, and acts as a reference source for all consortium members. Despite a general overview of the consortium, this section also includes the aggregated table with services supplied and demanded.

2.1 Approach and methodology

To gather, aggregate and validate data, we structured our approach into six stages described below:

- **Stage 1.** Review of products and services described in GA section 1.4 Business plan, Table 1. Envisioned services by the network of DIHs during and after the ramp-up phase (ramp-up phase = during the project).
- **Stage 2.** Two rounds of overall discussions with the consortium to understand aspects of business planning and product and service offering by each partner.
- **Stage 3.** Development of a questionnaire related to current products and services offerings.
- **Stage 4.** Filling of the questionnaire and individual interviews with each TRINITY consortium partner to fill in the gaps.
- **Stage 5.** Compilation and validation of data gathered.
- **Stage 6.** Mapping of TRINITY partners and their services according to the TNO´s model for product and service categorisation[1] within digital innovation hubs.

In order to have unified and comparable results we made sure to define clear structure for gathering data and follow the same taxonomy for services provided and demanded. In this document we provide already aggregated data.

2.2 Partners in the consortium

TRINITY comprises of 16 partners, (DIHs, technology providers, clusters and technology broker SMEs) from 10 different countries (geographical scope provided in Figure 2), with a wide range of expertise in the following areas:

- Intellectual (robotics and IoT, CPS, Cyber security, patents, expertise, partnerships, sharing knowledge, thorough workshops-seminars-webinars)
- Human (skilled scientists and professionals)
- Physical (infrastructure, web platforms, network equipment, machinery and robotics, software licenses)

[1] Butter, M., & Karanikolova, K. (2018), "Support to development of a Basque digital innovation Hub", TNO report, Project reference code: 931101 and M.Butter et al (2019), "Business Models for pan-EU networks", presentation given at the RODIN summer camp in October 2019, in Leiden

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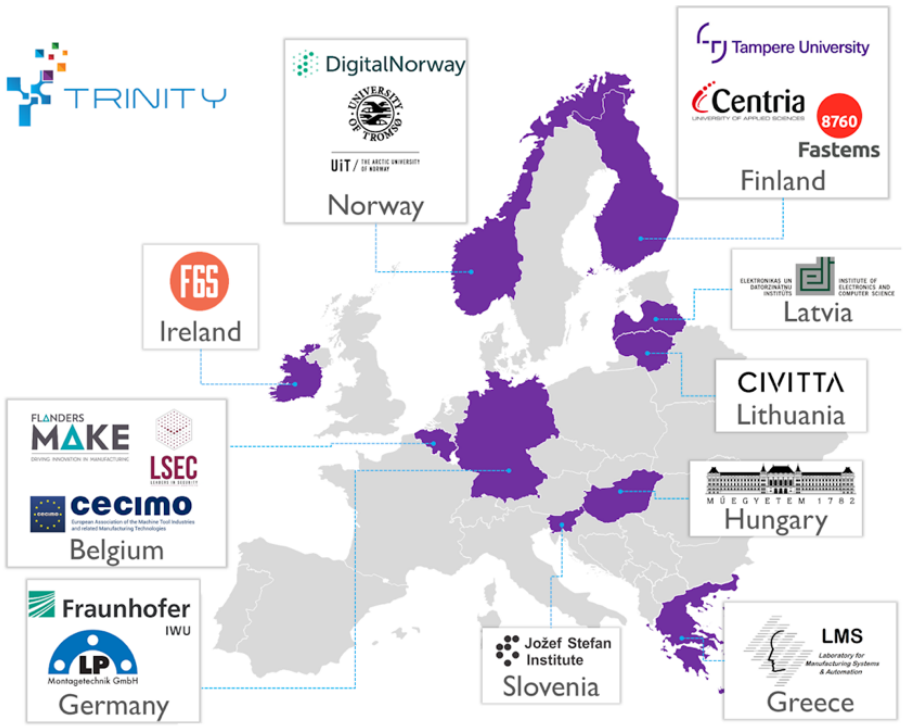

Figure 2. Participating countries

The consortium has following partners listed in the Table 1 below.

Table 1. Partners in the consortium

Participant no.	Participant Organisation Name	Participant short name	Country
1	Tampere University	TAU	Finland
2	Centria University of Applied Sciences	CENTRIA	Finland
3	UiT – The Arctic University of Norway	UiT	Norway
4	Jozef Stefan Institute	JSI	Slovenia
5	LMS University of Patras	LMS	Greece
6	Budapest University of Technology and Economics	BME	Hungary
7	Fraunhofer IWU a part of Fraunhofer Society	Frauhhofer	Germany
8	Flanders MAKE	MAKE	Belgium
9	Elektronikas un datorzinatnu instituts	EDI	Latvia
10	Leuven Security Excellence Consortium L-SEC VZW	LSEC	Belgium
11	Fastems	FASTEMS	Finland
12	LP Montagetechnik	LP	Germany
13	F6S	F6S	Ireland
14	Civitta	CIVITTA	Lithuania
15	Comite Europeen de Cooperation des Industries de la Machineoutil Cecimo Aisbl	CECIMO	Belgium
16	DigitalNorway	DNT	Norway

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2.3 Overview of services within the consortium

The overall capacity of the consortium in terms of services for the beneficiaries is represented in the Table 2. In order to have a more comprehensive overview not only about the current situation as is we also mapped services that partners are planning to provide as well as the ones that partners aren't interested to provide. This gives a better insight about future capacity and areas, where TRINITY as a network might be lacking.

Table 2. Aggregated table of services

Services provided 1 Planning to provide 2 Services demanded 3 Not interested to provide 4

Type of Service	Service	Activities	TAU	CENT	UiT	JSI	LMS	BME	Fraunhofer	MAKE	EDI	LSEC	FASTEMS	LP	F6S	CIVITTA	CECIMO	DNT
1. Business	1.1. Access to Finance	1.1.1. Connection to funding sources	1	1	4		1	4	1	1	1	1	4		1	1		1
		1.1.2. Financial engineering	4	4	4		2	4			4	3	4		4			4
		1.1.3. Investment plans	4	4	4		2	4			4	1	4		4			4
	1.2. Incubator / accelerator support	1.2.1. Business coaching and mentoring	4	1	4		1	4			4	1	4		1	1		3
		1.2.2. Business model development	4	3	4		2	4	2		4	1	4		4	1		1
		1.2.3. Business plan development support	3	3	4		1	4	1		4	1	4		4	1		1
		1.2.4. Consultancy	1	1	4	1	1	4			4	1	3		1	1		4
		1.2.5. Corporate innovations	1	3	4		2	4			4	1	3		4	1		4
		1.2.6. Envisioning & strategy development	1	3	4	1	2	4	1		4	1	4		4	1		3
		1.2.7. Ethics support	4	4	4		3	4	3		4		4		4			4
		1.2.8. GDPR related services	4	1	4		3	4			4	1	4		4			3
		1.2.9. Innovation booster (incubator/accelerator)	4	1	4		2	4	3	1	4	2	4		1	1		1
		1.2.10. IPR issues	4	3	4		3	4	1		3	2	4		2			4
	1.3. Offering housing	1.3.1. Office space	4	4	4		4	4			1	3	4		4			4
		1.3.2. Space for experimentation	1	1	4		1	4		1	1	2	4		4			4
		1.3.3. Space for pilot manufacturing	2	3	4		1	4			3	3	4		4			4
		1.4.1. Creating consortia	1	1	3	1	1	4	1	1	1	1	3		1	1		1

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	1.4. Project Development	1.4.2. Development of proposals	1	1	1	1	1	4	1	1	1	1	3		1	1	3	1
		1.4.3. Identification of opportunities	2	1	1	1	1	4	1	1	1	1	3		1	1	3	1
	1.5. Strategy Development	1.5.1. Market Assessments	4	3	1	3	2	4	3		4	1	4		4	1		4
2. Ecosystem	2.1. Community Building	2.1.1. Awareness Creation	1	3	1		1	3	3	1	1	1	1		4	3	3	1
		2.1.2. Dissemination	1	3	3	1	1	3		1	1	1	3		4	3	3	1
		2.1.3. Innovation Scouting	1	1	1		1	3	1	1	1	1	1		1	1		1
		2.1.4. Matchmaking & Brokerage	3	1	1		2	3	3	1	1	2	4		1	1		1
		2.1.5. Eco-system building	2	2	1		2	3	1	1	1	1	3		1	3		1
	2.2. Ecosystem Learning	2.2.1. Seminars	1	1	2	1	1	3	1	1	1	1	2		4	3		1
		2.2.2. Workshops	1	2	2	1	1	3	1	1	1	1	2		4	3		1
		2.2.3. Best Practise Catalogue	3	3	3		2	4	3	1	3	1	3		3			1
		2.2.4. Maturity Assessment (DIH/CC)	2	3	3		2	2	3	1	4	1	1	1	1	1		1
	2.3. Representation, promotion	2.3.1. Missions	3	4	4		1	2		1	3	2	3		3	1	3	4
		2.3.2. Representation	1	1	1		1	2	1	1	3	2	3		3	1	3	1
		2.3.3. Roadshows	2	3	3	1	2	3		1	3	2	2		3	1	3	1
	2.4. Strategy Development	2.4.1. Market intelligence	4	4		3	3	4	1		4	2	4		3	1	3	4
		2.4.2. Roadmapping	1	3			1	4	1		1	1	3		4	1		4
3. Technical	3.1. Collaborative R&D	3.1.1. Access to specialist expertise	1	1	1	1	1	1	1	1	1	1	1		1			1
		3.1.2. Joint, pre-competitive R&D	1	1	1	1	1	1	1	1	1	1	1		1			1
		3.1.3. Maturity Assessment (SME)	2	3	4		3	2		1	2	1	3		4			1
		3.1.4. Project Management for R&I projects	3	2		1	1	1		1	1	1	4		4	1	3	1
		3.1.5. Secondment from companies	4	4			1	4		1	3	1	4		3			3
	3.2. Contract Research	3.2.1. Specific R&D	1	1		1	1	1	1	1	1	2	4	1	3			4
		3.2.2. Proof of concept	1	1		1	1	1	1	1	1	2	3	1	4			4
		3.2.3. Technology concept development	1	1		1	1	1	1	1	1	1	3	1	4			4
	3.3. Data and Interface Standards	3.3.1. Development of standards, governance, compliance	1	4			3	4			3	1	4		4		3	4

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	3.4. Provision of tech infrastructure	3.4.1. Access to (low rate) production facilities	3	3	4		3	3		1	3	3	4		4			2
		3.4.2. Access to Lab facilities	1	1	1		1	1		1	1	3	4		4			3
		3.4.3. Access to Platforms	1	1	1		1	3	1	1	1	3	4		3			3
		3.4.4. Access to technical infrastructure	1	1	1		1	3	1	1	1	3	4		4			3
		3.4.5. Access to Test Sites	1	1	1		3	3	3	1	1	3	3		4			3
		3.4.6. Commercial Infrastructure	3	1	4		3	4		1	1	1	4		4			3
		3.4.7. Renting equipment	1	4	1		2	4	4	1	1	4	4		4			3
	3.5. Technical Support on Scale-up	3.5.1. Concept validation	3	3	1	1	1	2	1	1	1	1	3		4			3
		3.5.2. Prototyping	2	1	1	1	1	2	1	1	1	4	4		4			3
		3.5.3. Small series production	1	4	4		3	3	1	1	1	4	4		4			3
		3.5.4. Technology transfer (support&upscaling)	1	1	2	1	1	4	1	1	1	3	3		3			3
	3.6. Testing and validation	3.6.1. Benchmarking analysis	3	1	4	1	2	4	1	1	1	1	4		4	1		3
		3.6.2. Functional safety assessment	3	2			3	4	1	1	3	4	4		4			3
		3.6.3. Product certification	3	3	4		4	4	1		3	2	4		4			3
		3.6.4. Product demonstration	2	1		1	1	4	1	1	1	1	3		4			3
		3.6.5. Product qualification	3	3	4		2	4	1		3	1	3		4			3
4. Training	4.1. Skills training and Education	4.1.1. Business oriented training	4	2	1	3	1	3			4	1	4		4	1		1
		4.1.2. Ecosystem oriented training	4	3	1		2	4			4	1	4		3	1		1
		4.1.3. Technology oriented training	4	1	1	1	1	1	1	1	1	1	3		4			1

Services provided 1 **Planning to provide** 2 **Services demanded** 3 **Not interested to provide** 4

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3 Consortium partner profiles

In this section we provide an overview of each consortium partner including short descriptions, general insights and tables with services provided and demanded.

3.1 Tampere University (TAU)

The multidisciplinary, foundation-based Tampere University is Finland's second-largest university with 20.000 students and 330 professors. TAU conducts scientific research in technology, health and society and provides the highest education within these fields. In 2018, the total income of the two universities was 320 M€ of which 38 % was external research funding. TAU has been awarded with the European Commission's "HR Excellence in Research" logo.

The faculty and department mainly taking part in TRINITY is the Faculty of Engineering and Natural Sciences (ENS), Automation Technology and Mechanical Engineering (ATME). The Faculty of Engineering and Natural Sciences brings together a unique combination of expertise in natural sciences, related applied sciences and engineering sciences. The mission of the ATME department is to strengthen the ability of manufacturing industry to be innovative, competitive and sustainable. The research in our unit ranges from automation systems engineering to robotics, product design and production engineering. Our strength is especially in simulator technologies, simulator-aided education, mobile and industrial robotics, system design, information modelling and management, as well as knowledge development and life-long learning services. The research group aims to generate new knowledge in cooperation with companies and educational organizations and to advance their partners' knowhow and refine their models and processes of operation.

Customers
- SMEs
- LEs
- Students
- General public
- Public sector organisations

Value chain implications
N/A

Working language(s)
- English
- Finnish

Market sectors covered
- Manufacturing
- Product design
- Production networks and ecosystems
- Production strategies
- Innovation management
- Strategic management
- Data analysis and big data
- Public policy and strategy
- Ecosystem building and support
- Business planning and sustainability

Technological specialization and unique expertise
- Future Production Strategies
- Manufacturing ICT
- Digitalization and IoT
- Human robot collaboration
- Technology Education Research

TRL
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Table 3 TAU services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.2 Centria University of Applied Sciences (CENTRIA)

Centria University of Applied Sciences is the most international university of applied sciences in Finland. The university was founded 1991 and has approximately 3000 students studying in five different fields.

Centria R&D is a research organisation inside the university with about 110 full-time researchers. Researchers and approximately 100 teachers are working together on the applications of latest technologies. Centria has a track record of leading international consortiums, extensive experience of R&D with SMEs and international co-operation. In addition, the up-to-date education is an important part of the core competence. The international collaboration involves exchange of students and researchers and international R&D projects. Research focus is in robotics, digital manufacturing technology, ICT, telecommunications, sensor networks, car communications, and 5G field testing.

Customers
Mainly regional companies, which are mostly SMEs

Value chain implications
- Technological development
- More agile and more versatile processes
- Improved product quality

Working language(s)
- Finnish
- English
- Swedish

Market sectors covered
- Manufacturing
- Agriculture
- 5G network (Communication technology)
- RDI projects
- Consulting

Technological specialization and unique expertise
- 5G networks
- Collaborative robotics and cybersecurity
- Simulation
- Strong expertise of working in different projects, close collaboration with different companies.

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Table 4 CENTRIA services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
2. ECOSYSTEM	**1.4. Project Development**
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
	2.1. Community Building
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ▨

3.3 UiT – The Arctic University of Norway (UiT)

The Arctic University of Norway is the third largest university in Norway and the northernmost university of the world. Its location on the edge of the Arctic implies a mission. The Arctic is of increasing global importance. Climate change, the exploitation of Arctic resources and environmental threats are topics of great public concern, and which the university takes special interest in. UiT's study portfolio covers all classical subject areas from Engineering Science and Technology, Health and Social Sciences, Education and Humanities, Nature Science and Technology to Economics, Law, Social Work, Tourism, Sports and Fine Arts. UiT's key research covers a wide spectrum of field, i.e., sustainable engineering, polar environment, climate research, telemedicine, medical biology, space physics, fishery science, and marine bioprospecting.

UiT is in cooperation with national and international partners from both academic institutions and industries at global base in our key education and research areas.

Customers

- LEs
- Mid-Caps
- SMEs

Value chain implications

- Increased regional and national value generation through competence building at all levels in relevant industries through increased knowledge transferring
- Enhanced academic and industrial cooperation through innovation and research projects
- Providing testing environment for sustainable and innovation solutions for industries and research environment

Working language(s)

- English
- Norwegian

Market sectors covered

- Manufacturing sector
- Constructions
- Aquaculture
- Agriculture
- Transportation
- Logistics

Technological specialization and unique expertise

Intelligent manufacturing and logistics for SMEs

TRL

1-5

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 5 UiT services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.4 Jozef Stefan Institute (JSI)

Jozef Stefan Institute is the leading Slovenian research organization founded in 1949. JSI is responsible for a broad spectrum of basic and applied research in the fields of natural sciences and engineering. The staff of around 1000 specializes in research in information sciences, physics, chemistry and biochemistry, nuclear technology, energy utilization, and environmental science. The robotics research and development of advanced technologies for factories of the future most relevant for TRINITY is conducted by Department of Automatics, Biocybernetics, and Robotics. The research group in this department consists of ca. 40 researchers and support personnel. It combines the fields of robotics (focusing on intelligent control, robot programming, robot learning, and cognitive robotics), automation, factories of the future, and ergonomics. The goal is to apply the latest results in robotics and automation research to develop new robot applications. The group collaborates both with top robotics research groups worldwide as well as local and international industry. It is tightly integrated in national and European robotics and manufacturing ecosystems and coordinates the national program on factories of the future.

Customers

- SMEs
- Mid-Caps
- LEs
- Universities/research centres
- Clusters

Value chain implications

Increased automation and rationalize of production processes

Working language(s)

- English
- German
- Slovene

Market sectors covered

- Robotics
- FoF
- Environmental physiology
- Bio-cybernetics and automation

Technological specialization and unique expertise

- Intelligent control, robot programming, robot learning, and cognitive robotics
- Agile, reconfigurable robot workcells
- Development of manikins for garment testing
- Development of new mechatronics components for robots and production cells

TRL

1-7

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 6 JSI services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.5 LMS University of Patras (LMS)

The Laboratory for Manufacturing Systems & Automation (LMS) is oriented on research and development in cutting edge scientific and technological fields. LMS is involved in a number of research projects funded by the CEU and European industrial partners. Particular emphasis is given to the co-operation with the European industry as well as with a number of "hi-tech" firms. LMS is organized in three different groups:

1) Manufacturing Processes Modelling and Energy Efficiency,
2) Robots, Automation and Virtual Reality in Manufacturing,
3) Manufacturing Systems and it has a fully equipped machine shop that contains high payload industrial robots, collaborative robots and machine tools.

Customers

- SMEs
- Start-ups
- Universities
- Multi-national and large companies
- OEMs

Value chain implications

- Collaborative cross-border networks
- Enhancement of technology transfer
- Increased digitization in SMEs
- New products on the Market

Working language(s)

- English
- Greek

Market sectors covered

- Education
- Manufacture of:
  - Food products, beverages and tobacco
  - Textiles and textile products
  - Leather and leather products
  - Wood and wood products
  - Coke, refined petroleum products and nuclear fuel
  - Chemicals, chemical products and man-made fibres
  - Rubber, plastic and other non-metallic mineral products
  - Basic metals and fabricated metal products
  - Machinery and equipment
- Software oriented companies
- ICT Technology Providers
- Technology Institutes

Technological specialization and unique expertise

- Manufacturing processes modelling
- Energy efficiency,
- Robots, automation and virtual reality in manufacturing,
- Manufacturing systems

TRL

1-6

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 7 LMS services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
2. ECOSYSTEM	**1.4. Project Development**
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
	2.1. Community Building
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.6 Budapest University of Technology and Economics (BME)

The Budapest University of Technology and Economics (BME) is a public higher education institute operating as a central budgetary institution.

In 1782 Emperor Joseph II establishes the Institutum Geometricum as part of the Faculty of Liberal Arts at the University of Buda. The Institutum is the direct predecessor of the Budapest University of Technology and Economics.

The steering body of the University is the Senate. The faculties in the order of their founding:

- Faculty of Civil Engineering (ÉMK)
- Faculty of Mechanical Engineering (GPK)
- Faculty of Architecture (ÉPK)
- Faculty of Chemical Technology and Biotechnology (VBK)
- Faculty of Electrical Engineering and Informatics (VIK)
- Faculty of Transportation Engineering and Vehicle Engineering (KJK)
- Faculty of Natural Sciences (TTK)
- Faculty of Economic and Social Sciences (GTK)

Education, research, innovation and direct additional services are provided by the faculties. Work-sharing between the faculties are subject oriented both in the fields of education and that of technology. The faculties consist of departments, institutes, research centres that are supported by dean's offices and other units.

Customers

Demonstrators to help SMEs, don't have customers in this meaning from the industry, contact huge automation companies because of education.

Value chain implications

- New cooperative projects
- Better technology transfer
- Increased digitalization
- New functionalities of systems
- Less human effort in running and maintaining systems
- Increased efficiency

Working language(s)

- Hungarian
- English

Market sectors covered

- Automation and mechatronics
- Optics
- Informatics and programming

Technological specialization and unique expertise

- Graphical Programming language
- Measurements system development
- Measurements system
- Automation (local)
- Mobile robot application on all levels
- Robotics basic training
- R&D in the above areas
- Technical consulting in automation in robotics
- Developing manufacturing lines

TRL

5

Memberships in International Organizations among others: Network of European Neuroscience Schools, EUA (European University Association), CESAER (Conference of European Schools of Advanced Engineering Education and Research, SEFI (European Society for Engineering Education), Conference of Rectors and Presidents of European Universities of Technology, IAUP (International Association of University Presidents), 4xTU League.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 8 BME services

1. BUSINESS	**1.1. Access to Finance**	
	1.1.1. Connection to funding sources	
	1.1.2. Financial engineering	
	1.1.3. Investment plans	
	1.2. Incubator/accelerator support	
	1.2.1. Business coaching and mentoring	
	1.2.2. Business model development	
	1.2.3. Business plan development support	
	1.2.4. Consultancy	
	1.2.5. Corporate innovations	
	1.2.6. Envisioning & strategy development	
	1.2.7. Ethics support	
	1.2.8. GDPR related services	
	1.2.9. Innovation booster (incubator/accelerator)	
	1.2.10. IPR issues	
	1.3. Offering housing	
	1.3.1. Office space	
	1.3.2. Space for experimentation	
	1.3.3. Space for pilot manufacturing	
	1.4. Project Development	
	1.4.1. Creating consortia	
	1.4.2. Development of proposals	
	1.4.3. Identification of opportunities	
	1.5. Strategy Development	
	1.5.1. Market Assessments	
2. ECOSYSTEM	**2.1. Community Building**	
	2.1.1. Awareness Creation	
	2.1.2. Dissemination	
	2.1.3. Innovation Scouting	
	2.1.4. Matchmaking & Brokerage	
	2.1.5. Eco-system building	
	2.2. Ecosystem Learning	
	2.2.1. Seminars	
	2.2.2. Workshops	
	2.2.3. Best Practise Catalogue	
	2.2.4. Maturity Assessment (DIH/CC)	
	2.3. Representation, promotion	
	2.3.1. Missions	
	2.3.2. Representation	
	2.3.3. Roadshows	
	2.4. Strategy Development	
	2.4.1. Market intelligence	
	2.4.2. Roadmapping	
3. TECHNOLOGY	**3.1. Collaborative R&D**	
	3.1.1. Access to specialist expertise	
	3.1.2. Joint, pre-competitive R&D	
	3.1.3. Maturity Assessment (SME)	
	3.1.4. Project Management for R&I projects	
	3.1.5. Secondment from companies	
	3.2. Contract Research	
	3.2.1. Specific R&D	
	3.2.2. Proof of concept	
	3.2.3. Technology concept development	
	3.3. Data and Interface Standards	
	3.3.1. Development of standards, governance, compliance	
	3.4. Provision of tech infrastructure	
	3.4.1. Access to (low rate) production facilities	
	3.4.2. Access to Lab facilities	
	3.4.3. Access to Platforms	
	3.4.4. Access to technical infrastructure	
	3.4.5. Access to Test Sites	
	3.4.6. Commercial Infrastructure	
	3.4.7. Renting equipment	
	3.5. Technical Support on Scale-up	
	3.5.1. Concept validation	
	3.5.2. Prototyping	
	3.5.3. Small series production	
	3.5.4. Technology transfer (support & upscaling)	
	3.6. Testing and validation	
	3.6.1. Benchmarking analysis	
	3.6.2. Functional safety assessment	
	3.6.3. Product certification	
	3.6.4. Product demonstration	
	3.6.5. Product qualification	
4. TRAINING	**4.1. Skills training and Education**	
	4.1.1. Business oriented training	
	4.1.2. Ecosystem oriented training	
	4.1.3. Technology oriented training	

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ▨

3.7 Fraunhofer IWU a part of Fraunhofer Society (Fraunhofer)

The Fraunhofer Society (founded in 1949) is a German non-profit research organization with 72 institutes spread throughout Germany, each focusing on different fields of applied science. With some 28,000 employees, mainly scientists and engineers and with an annual research budget of about €2.8 it is the biggest organization for applied research and development services in Germany and Europe.

As a leading institute for resource-efficient production within the Fraunhofer-Gesellschaft, Fraunhofer Institute for Machine Tools and Forming Technology (IWU) are your scientific research and development partner for the future industries of automobile and mechanical engineering. Since 1991, the main focus of our work has been on application-oriented research and development in the field of production technology for the automotive and mechanical engineering sectors. We not only develop intelligent production systems for the manufacturing of car body and powertrain components, but we also optimize their related forming and cutting manufacturing processes.

Customers
- LEs
- SMEs (level of maturity and expectations differ)

Value chain implications
- Increase in flexibility in production processes
- Increased digitalisation of enterprises, that have hardly any experience in the digital world

Working language(s)
- English
- German

Market sectors covered
- Manufacture of machinery and equipment
- Production processes for transportation industry (Automotive +Aerospace)
- Manufacture of plastics and textile products

Technological specialization and unique expertise
- Advanced robotics and assembly
- Digitalization
- Human-machine interaction

TRL
3-7

Some basic funding for the Fraunhofer Society is provided by the state (the German public, through the federal government together with the states or Länder, "owns" the Fraunhofer Society), but more than 70% of the funding is earned through contract work from industry, especially with SME`s and large scale companies either for government-sponsored projects.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 9 Fraunhofer services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
2. ECOSYSTEM	**1.4. Project Development**
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
	2.1. Community Building
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.8 Flanders MAKE (MAKE)

Flanders Make, founded in 2014, is the strategic research centre for the manufacturing industry in Flanders, focused on stimulating open innovation through excellent collaborative research and innovation projects with Flemish companies.

At the core of Flanders Make is an extensive range of research, testing and validation infrastructure for products and production. The goal is to contribute to the technological development of vehicles, machines and factories of the future by making them compatible with Industry4.0, partly by integration of photonics technology such as fiber-optic sensors, vision systems, laser-based manufacturing and advanced optical component manufacturing.

Flanders Make works with innovating companies, both large enterprises and SMEs. We are part of the innovation ecosystem in Flanders and have strong collaborations with other players in the system like spearhead clusters (Flanders Food, Strategic Initiative Materials, Flanders Institute of Logistics), other research institutes (iMec, VITO, Sirris) and the Flemish Government. In Europe Flanders Make is recognized as a fully operational Digital Innovation Hub and partner in different related H2020 projects.

Customers
- SMEs
- Mid-Caps
- LEs
- Manufacturing industry, technology and services providers

Value chain implications
- Concrete product and production innovations
- New business models
- Tap into new markets/respond to new or changing market demands
- Collaborative cross-border networks

Working language(s)
- English
- Dutch

Market sectors covered
- The vehicle industry
- Mechanical engineering and production environments

Technological specialization and unique expertise
- Fiber-optic sensors
- Vision systems
- Laser-based manufacturing
- Advanced optical component manufacturing

TRL
2-8

Through our strong collaboration with the 5 Flemish universities, our circular innovation system covers the full scope of TRL levels from TRL 2 to TRL 8.

Flanders Make is built around four Competence Clusters:
- Design and Optimization – improvement of the increasingly complex design process
- Decision and Control – improvement of mechatronic systems through sensors, AI and self-learning systems
- Flexible Assembly – supporting digital transformation to factories of the future
- Motion Products – improve architectures of motion products to smart and self-adapting systems

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 10 MAKE services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.9 Elektronikas un datorzinatnu instituts (EDI)

EDI in Riga, Latvia was established in 1960. EDI is a public research institution, currently among the highest rated scientific institutions in Latvia specializing in Smart Embedded Cooperative Systems (SECS). Our mission is to perceive the world and design a better future by creating new knowledge, developing innovative technologies and demonstrating their practical significance in real life applications. This mission drives a scientific staff of over 80 people, who are organized in four laboratories: Signal Processing; Space Technology; Robotics and Machine Perception; and Cyber-Physical System labs.

We believe that our future world will be even more connected, digital and automated than ever, forming various ambitious challenges to achieve, e.g. personalized predictive and preventive healthcare; efficient, connected and autonomous (zero defect) factories; safe (zero fatalities), affordable, sustainable, connected, cooperative, automated and clean (zero emissions) mobility; secure, safe and trustable connectivity and system interoperability; to name a few, which will impact everyday life of citizens and all business sectors. At EDI we have a unique perspective, expertise and capacity to contribute in solving all these challenges on global scale. The key driving force of EDI scientific activities is its economic and social impact; therefore, we apply our SECS expertise in mobility, industry, health, digital life and space domains. Our expertise is complemented by close collaboration with 300+ international partners.

Customers
- Mostly SMEs
- Mid-Caps and LEs

Value chain implications
- New cooperative projects
- Better technology transfer
- Increased digitalization
- New products
- New functionalities of systems
- Less human effort in running and maintaining systems
- Increased efficiency

Working language(s)
- English
- Latvian
- Russian

Market sectors covered
- Automotive
- Agriculture and forestry
- Construction
- Transport
- Information technologies
- Electronics
- Communication
- Healthcare
- Medical Device
- Manufacturing/Production
- Space Technologies

Technological specialization and unique expertise
- R&D of Smart Embedded Cooperative Systems (SECS)
- Electronics integration with computer science
- Extremely precise event timing incl. space domain
- Remote sensing and space data processing
- Signal processing and embedded intelligence
- Smart sensors and IoT

TRL
2-7

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 11 EDI Services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.10 Leuven Security Excellence consortium L-SEC VZW (LSEC)

LSEC (Leaders in Security) is a European not-for-profit private association focused on Industrial Cybersecurity and Information Security, operating since 2002 from Belgium. The association is based upon the corporate membership of more than 15.000 individual members, representing over 3.500 end user organisations from a variety of vertical sectors mainly in the Critical Infrastructure domain and centred around more than 465 Core Members. The Core Members are the representatives from the information security industry with European dedicated SME's and large companies focusing on industrial security challenges. Partners include other associations such as the bank regulators, state security, government and LEA-type organisations. LSEC operates the 3IF.eu digital transformation platform for manufacturing companies, and the Predictive Maintenance and Industrial Data Space field labs. LSEC applies digital technologies to support manufacturing companies in integrating new technologies for operational improvements and digital servitization of products and services. In the field labs, demonstrators are being setup on site with maturing digital technologies and validating new technologies to immediately provide insight in the potential of monitoring and data analytics. In these field labs, LSEC investigates robotic systems about their digital integration capabilities and security requirements.

Customers
- SMEs & Micro Enterprise
- LEs
- RTO
- Government
- Non-profit organizations

Value chain implications
- Cybersecurity
- Trusted value chain, Third Party Risk
- Integrated (with supply & demand)
- Hyperconnected factories
- Autonomous Smart Factories
- Compliance (NIS-GDPR) Data Protection and Cybersecurity
- Service oriented business models & products

Working language(s)
- English
- Dutch/Flemish
- French
- German

Market sectors covered
- Discrete & Process Manufacturing
- Production & Logistics
- Manufacturing
- Critical Infrastructure
- Financial Services
- Education
- Other community, social and personal service activities (media, entertainment, etc.)

Technological specialization and unique expertise
- Cybersecurity
- Hands on experience of industrial IoT
- Condition-based maintenance
- Transforming non-digital SMEs into digital manufacturing SMEs.

TRL
6-9 and beyond (commercialization)

The main activities of LSEC are: a) creating awareness, informing and educating the business and government markets about ongoing and future security related challenges of digital systems; b) stimulating innovation through advisory services or by creating and operating joint industrial projects related to information security and digital systems security with research and industry; c) coordinating membership community activities and stimulating and growing the participation; d) advisory services to the Core Members including advanced security expertise .

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Table 12 LSEC services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.11 Fastems (FASTEMS)

Fastems is an independent supplier of flexible manufacturing systems and robotics-based automation to the metal cutting industries for automating the manufacturing and finishing processes.
Founded in 1901, Fastems is a privately held company headquartered in Finland. Fastems operates in nine European countries, the United States, Japan, and China. The main customer segments for Fastems are mechanical engineering and machine building industries, aerospace industries and job shops (subcontractors).

Customers

- Companies in manufacturing industry (metal cutting domain):
- LEs
- Mid-Caps
- SMEs

Value chain implications

- Productivity (economically feasible manufacturing of batch-size-one, higher quality and efficiency)
- Tackling the workforce challenge (new role of human being in manufacturing, attractive jobs)

Working language(s)

- Finnish
- German
- Swedish
- English
- Italian

Market sectors covered

- Aerospace
- Production technology
- Automotive industry as well as subcontractors / job shops.

Technological specialization and unique expertise

Fastems is an open integrator i.e. customers can select the best fitting machines, devices and ICT systems for their manufacturing needs whatever the brand is. Our task is to integrate those to system level entities and in the field of integration we have very long experience. Expertise in solutions: flexible manufacturing systems, robotic applications and SW solutions for manufacturing (true metal cutting domain expertise growing up from factory floor).

TRL

Company is focusing on higher TRL levels from applied research up to market entry.

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Table 13 FASTEMS services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.12 LP Montagetechnik (LP)

LP-Montagetechnik GmbH, located in Erlangen, Germany since 2000, has been engaged in conception and realization of Manual Flow Assembly Systems and Hybrid Assembly Solutions with the principle of "One-Piece-Flow" or „One-Set-Flow". Main focuses are ergonomic design, easily convertible and ergonomic optimized part storage systems and workplace layout guided with MTM (Methods Time Measurement).

LP is a small German GmbH with 6 people full time and sometimes temporary workers in which the technical stuff is largely specialized in assembly technology.

The geographical scope of LP is mainly Germany, sometimes central Europe.

LP shares its portfolio in two main strings: on the one hand standard products which can be customized regarding the customer needs and on the other hand special developed assembly lines, manual or semi-automated (=hybrid). The second one starts with a conceptional phase, such as process mapping of the current situation at the customers production site including MTM analysis, ergonomic evaluation etc.
After the process mapping, LP develops new assembly method concerning batch sizes, variants, total quantity per year, facility conditions – and of course improved ergonomic and economical results.
LP is always striving to develop and therefore often works on projects with universities.
Summary of LPs main experiences:

- MTM-knowledge
- Allocation of work in hybrid assembly lines / work cells
- Ergonomic workplace design

Customers
- Mostly SMEs
- Sometimes LEs

Value chain implications
- Smoother workflow
- Enhanced outcome
- Reduction of sick leave of employees

Working language(s)
- German
- English

Market sectors covered
Assembly tasks in manufacturing companies

Technological specialization and unique expertise
- Consulting
- Engineering
- Implementation of ergonomic and economical manual and hybrid assembly workplaces

TRL
- 9 if assembly lines are implemented at customers production site
- 5 - 6 in case of conceptual project phases

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 14 LP Services

1. BUSINESS	**1.1. Access to Finance**	
	1.1.1. Connection to funding sources	
	1.1.2. Financial engineering	
	1.1.3. Investment plans	
	1.2. Incubator/accelerator support	
	1.2.1. Business coaching and mentoring	
	1.2.2. Business model development	
	1.2.3. Business plan development support	
	1.2.4. Consultancy	
	1.2.5. Corporate innovations	
	1.2.6. Envisioning & strategy development	
	1.2.7. Ethics support	
	1.2.8. GDPR related services	
	1.2.9. Innovation booster (incubator/accelerator)	
	1.2.10. IPR issues	
	1.3. Offering housing	
	1.3.1. Office space	
	1.3.2. Space for experimentation	
	1.3.3. Space for pilot manufacturing	
2. ECOSYSTEM	**1.4. Project Development**	
	1.4.1. Creating consortia	
	1.4.2. Development of proposals	
	1.4.3. Identification of opportunities	
	1.5. Strategy Development	
	1.5.1. Market Assessments	
	2.1. Community Building	
	2.1.1. Awareness Creation	
	2.1.2. Dissemination	
	2.1.3. Innovation Scouting	
	2.1.4. Matchmaking & Brokerage	
	2.1.5. Eco-system building	
	2.2. Ecosystem Learning	
	2.2.1. Seminars	
	2.2.2. Workshops	
	2.2.3. Best Practise Catalogue	
	2.2.4. Maturity Assessment (DIH/CC)	
	2.3. Representation, promotion	
	2.3.1. Missions	
	2.3.2. Representation	
	2.3.3. Roadshows	
3. TECHNOLOGY	**2.4. Strategy Development**	
	2.4.1. Market intelligence	
	2.4.2. Roadmapping	
	3.1. Collaborative R&D	
	3.1.1. Access to specialist expertise	
	3.1.2. Joint, pre-competitive R&D	
	3.1.3. Maturity Assessment (SME)	
	3.1.4. Project Management for R&I projects	
	3.1.5. Secondment from companies	
	3.2. Contract Research	
	3.2.1. Specific R&D	
	3.2.2. Proof of concept	
	3.2.3. Technology concept development	
	3.3. Data and Interface Standards	
	3.3.1. Development of standards, governance, compliance	
	3.4. Provision of tech infrastructure	
	3.4.1. Access to (low rate) production facilities	
	3.4.2. Access to Lab facilities	
	3.4.3. Access to Platforms	
	3.4.4. Access to technical infrastructure	
	3.4.5. Access to Test Sites	
	3.4.6. Commercial Infrastructure	
	3.4.7. Renting equipment	
	3.5. Technical Support on Scale-up	
	3.5.1. Concept validation	
	3.5.2. Prototyping	
	3.5.3. Small series production	
	3.5.4. Technology transfer (support & upscaling)	
	3.6. Testing and validation	
	3.6.1. Benchmarking analysis	
	3.6.2. Functional safety assessment	
	3.6.3. Product certification	
	3.6.4. Product demonstration	
	3.6.5. Product qualification	
4. TRAINING	**4.1. Skills training and Education**	
	4.1.1. Business oriented training	
	4.1.2. Ecosystem oriented training	
	4.1.3. Technology oriented training	

Services supplied **Services demanded** **Services nor supplied, neither demanded**

3.13 F6S

F6S is a European based entity that has become the largest Start-up/SME community globally with over 1.3 million Start-ups/SMEs and 1.7 million entrepreneurs. F6S delivers more than €2 billions every year to Start-ups and SMEs with leading CRM for deal flow, corporate, challenges, structured programs, start-up services, corporate partnering, recruiting, government, grants, and free start-up resources.

F6S is the leading platform for application management for commercial, corporate, government, university and other accelerator programs, helping more than 17.000 such initiatives worldwide. Every year F6S processes more than 700,000 applications.

Customers

- Start-ups
- SMEs
- Corporate
- Public sector organisations

Value chain implications

N/A

Working language(s)

- English

Market sectors covered

- Innovation management
- Strategic management
- Market research
- Ecosystem building and support

Technological specialization and unique expertise

- Innovation policy ecosystem
- Non-technical service provision

TRL

N/A

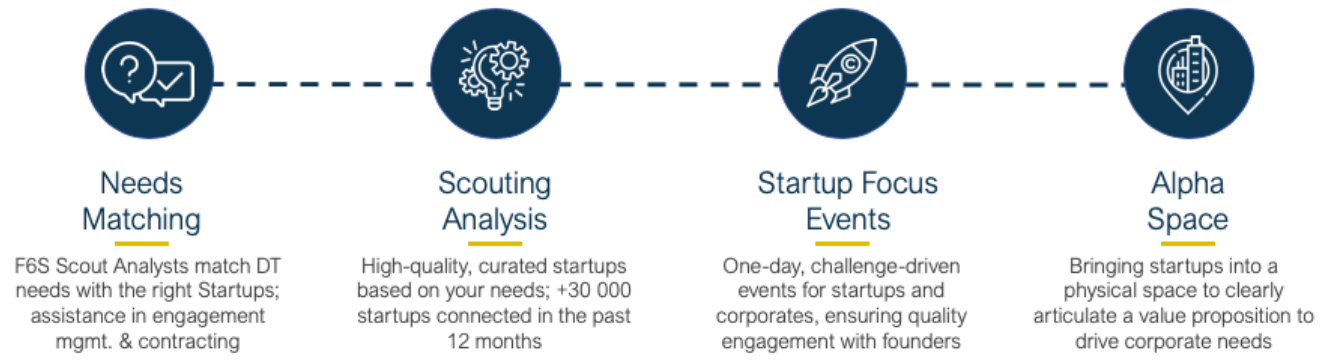

Figure 3. Services of F6S

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 15 F6S services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
2. ECOSYSTEM	**1.4. Project Development**
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
	2.1. Community Building
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.14 Civitta (CIVITTA)

Civitta is the largest independent management consultancy and project implementation organization in Eastern Europe. The company was established in 2010 and has grown to an international strategy consultancy with over 300 consultants across 24 offices in 15 countries: Estonia, Latvia, Lithuania, Finland, Poland, Ukraine, Romania, Moldova, Russia, Belarus, Serbia, Slovakia, Bulgaria, North Macedonia and Denmark. Because its founders are entrepreneurs, innovation and entrepreneurship support are the core activities of the company. Civitta Innovation is a core business line of Civitta International - as one the most experienced innovation commercialisation, start-ups and entrepreneurship consultants in Central and Eastern Europe, during the previous projects, has established strong links with main universities, government agencies and start-up accelerators.

Customers

- Start-ups
- SMEs
- LEs
- Public sector organisations

Value chain implications

N/A

Working languages

- English
- As per office location

Market sectors covered

- Innovation management
- Strategic management
- Market research
- Data analysis and big data
- Public policy and strategy
- Organisational change and change management
- Ecosystem building and support
- Business planning and sustainability
- Etc.

Technological specialization and unique expertise

- Big data
- Requirements for IT systems
- Service process digitization and robotization
- Innovation policy ecosystem
- Non-technical service provision

TRL

N/A

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 16 CIVITTA services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
	2.4. Strategy Development
	2.4.1. Market intelligence
	2.4.2. Roadmapping
3. TECHNOLOGY	**3.1. Collaborative R&D**
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.15 Comite Europeen de Cooperation des Industries de la Machineoutil Cecimo Aisbl - (CECIMO)

CECIMO is the European Association of the Machine Tool Industries and related Manufacturing Technologies. It brings together 15 national Associations of Machine Tool builders, which represent approximately 1500 industrial enterprises in Europe (EU + EFTA + Turkey), over 80% of which are SMEs.

Customers
- National associations of Machine tools builders

Value chain implications
N/A

Working language(s)
- English

Market sectors covered
- Market research within the field
- EU Public policy and strategy

Technological specialization and unique expertise
- Machinery
- Standardisation

TRL
N/A

CECIMO defends the common interests of its members and promotes the European machine tool industries and their development in the fields of economy, technology and science. It provides market intelligence by collecting and analysing data about the machine tool sector, coordinates inputs to relevant European and international standardization committees and promotes innovation in the sector. CECIMO covers 98% of the total machine tool production in Europe and about 35% worldwide. It accounts for more than 150,000 employees and a turnover of around 27 billion euros in 2019. More than three quarters of CECIMO production is shipped abroad, whereas half of it is exported outside Europe.

The machine tool sector is a supplier of high technology manufacturing equipment and products to the European and international manufacturing industries, including automotive, aerospace, ship building, power generation and the medical sectors.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 17 CECIMO services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
2. ECOSYSTEM	**1.4. Project Development**
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
	2.1. Community Building
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

3.16 DigitalNorway (DNT)

DigitalNorway is a non-profit industry driven organization established in 2017 by major Norwegian business partners with support from public organizations. DigitalNorway aim is to become an arena that builds, connects and drives digitalization across SMEs, large industry and academic and research organizations. DigitalNorway is the center force and one of the fully operational Digital Innovation Hub in Norway. There are 15 owners: Telenor, DNB, Equinor, Kongsberg Gruppen, Ruter, Sintef, Aker BP, OBOS, Lyse, Schibsted, Yara, Gard, DNV GL, Ferd and Statnett. Our strategic members are the Norwegian Public Roads Administration, Municipality of Oslo and Ministry of Local Government and Regional Development (KMD) and strong regional innovation environments (Kongsberg Innovasjon, Mo Industripark, Smart Innovation Norway, IKuben, Proneo) that contribute to develop useful services and tool for digitalization.

Customers

- Norwegian SMEs, part of established networks
- Academic and research institutions
- Large companies
- Policy actors
- Funding agencies
- Industry associations/Federations

Value chain implications

- Close the knowledge gap related to innovation processes, data lifecycle and use of digital technologies
- Support digital experimentation and innovation
- Collaborative innovation
- New partnerships
- New customer value propositions and services by SMEs
- Fit for purpose academic programs for SMEs
- Industry alignment on enablers for data driven ecosystems and value-chains
- Strengthen the value of participating in clusters and industry collaboratives

Working language(s)

- English
- Norwegian

Market sectors covered

No limitation in market sectors, we serve all industries. However, we have increased focus on B2B in industries such as Production, Health, Energy

Technological specialization

We don't produce any in-house as of today, but have access to all the digital technologies such as AI, HPC, Big Data, Cybersecurity etc. through our innovation ecosystem

TRL

5-7 through our innovation ecosystem

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Table 18 DNT services

1. BUSINESS	**1.1. Access to Finance**
	1.1.1. Connection to funding sources
	1.1.2. Financial engineering
	1.1.3. Investment plans
	1.2. Incubator/accelerator support
	1.2.1. Business coaching and mentoring
	1.2.2. Business model development
	1.2.3. Business plan development support
	1.2.4. Consultancy
	1.2.5. Corporate innovations
	1.2.6. Envisioning & strategy development
	1.2.7. Ethics support
	1.2.8. GDPR related services
	1.2.9. Innovation booster (incubator/accelerator)
	1.2.10. IPR issues
	1.3. Offering housing
	1.3.1. Office space
	1.3.2. Space for experimentation
	1.3.3. Space for pilot manufacturing
	1.4. Project Development
	1.4.1. Creating consortia
	1.4.2. Development of proposals
	1.4.3. Identification of opportunities
	1.5. Strategy Development
	1.5.1. Market Assessments
2. ECOSYSTEM	**2.1. Community Building**
	2.1.1. Awareness Creation
	2.1.2. Dissemination
	2.1.3. Innovation Scouting
	2.1.4. Matchmaking & Brokerage
	2.1.5. Eco-system building
	2.2. Ecosystem Learning
	2.2.1. Seminars
	2.2.2. Workshops
	2.2.3. Best Practise Catalogue
	2.2.4. Maturity Assessment (DIH/CC)
	2.3. Representation, promotion
	2.3.1. Missions
	2.3.2. Representation
	2.3.3. Roadshows
3. TECHNOLOGY	**2.4. Strategy Development**
	2.4.1. Market intelligence
	2.4.2. Roadmapping
	3.1. Collaborative R&D
	3.1.1. Access to specialist expertise
	3.1.2. Joint, pre-competitive R&D
	3.1.3. Maturity Assessment (SME)
	3.1.4. Project Management for R&I projects
	3.1.5. Secondment from companies
	3.2. Contract Research
	3.2.1. Specific R&D
	3.2.2. Proof of concept
	3.2.3. Technology concept development
	3.3. Data and Interface Standards
	3.3.1. Development of standards, governance, compliance
	3.4. Provision of tech infrastructure
	3.4.1. Access to (low rate) production facilities
	3.4.2. Access to Lab facilities
	3.4.3. Access to Platforms
	3.4.4. Access to technical infrastructure
	3.4.5. Access to Test Sites
	3.4.6. Commercial Infrastructure
	3.4.7. Renting equipment
	3.5. Technical Support on Scale-up
	3.5.1. Concept validation
	3.5.2. Prototyping
	3.5.3. Small series production
	3.5.4. Technology transfer (support & upscaling)
	3.6. Testing and validation
	3.6.1. Benchmarking analysis
	3.6.2. Functional safety assessment
	3.6.3. Product certification
	3.6.4. Product demonstration
	3.6.5. Product qualification
4. TRAINING	**4.1. Skills training and Education**
	4.1.1. Business oriented training
	4.1.2. Ecosystem oriented training
	4.1.3. Technology oriented training

Services supplied ☐ **Services demanded** ☐ **Services nor supplied, neither demanded** ☒

4 Conclusion

In this report we provided information about each TRINITY consortium partner and their services, i.e. a "who is who" identification and mapping. This information not only sheds light on the overall capacity of the consortium, but also lays a foundation for further WP6 activities and the main objective - viable business plan and sustainability at the end of TRINITY project.

The partnering DIHs reported that the services requested from them are such as

- 2.1. Community Building
- 2.2. Ecosystem Learning
- 2.3. Representation, promotion
- 2.4. Strategy Development
- 3.4. Provision of tech infrastructure
- 3.6. Testing and validation

Some of the partnering DIHs had requests also for

- 1.2.7. Ethics support
- 1.2.8. GDPR related services
- 1.2.3. Business plan development support
- 3.5. Technical Support on Scale-up

The following actions will be performed by WP6 team in order to achieve the main objective:

- Finalisation of the design of the services provided and demanded template, with the purpose of gathering information from DIHs in order to make information available on the portal.
- Identification of services that TRINITY network of DIHs can provide to the beneficiaries.
- Development of different business model scenarios in order to achieve network sustainability at the end of the project.
- Development of the legal framework for future collaboration within the consortium and external stakeholders.

This information will be used further to develop the TRINITY activities. This will be discussed in the CSA Rodin collaboration platform.

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