

Hungary (HU)

Hungary has a platform for digitising industry, *IPAR4.0 Technology Platform*.¹ The platform represents a part of the national strategy with the aim of fundamentally rearranging the manufacturing systems based on digital modelling. It is based on two objectives: (1) Foster information exchange, cooperation and partnership establishment between all actors of the economy, and (2) Acceleration of innovation, particularly in the key areas of digitisation and production, with a specific sector focus on cybersecurity. There is a public funding model behind IPAR 4.0 comprising a mixture of different public financial instruments.

On a **national level** Hungary has 4 *Digital Innovation Hubs* (2 fully operational and 2 in preparation status) covering various market domains (agriculture, fishing, manufacturing (food products, textiles, chemicals, basic and fabricated metal products, electrical and optical equipment, machinery, electrical equipment), and electricity) through a large spectrum of technology areas presented as follows:

- Additive manufacturing (3D printing)
- Advanced or High-performance computing
- Artificial Intelligence and cognitive systems
- Augmented and virtual reality, visualization
- Cloud computing
- Cyber physical systems (e.g. embedded systems)
- Cyber security (including biometrics)
- Data mining, big data, database management
- Gamification
- ICT management, logistics and business systems
- Interaction technologies (e.g. human-machine Interaction, motion recognition and language technologies)
- Internet of Things (e.g. connected devices, sensors and actuators networks)
- Internet services (e.g. web development, web production, design, networking, and e-commerce)
- Laser based manufacturing
- Location based technologies (e.g. GPS, GIS, in-house localization)
- Micro and nano electronics, smart system integration
- New Media technologies
- Organic and Large Area Electronics (OLAE)
- Photonics, electronic and optical functional materials
- Robotics and autonomous systems
- Screens and display technologies
- Sensors, actuators, MEMS, NEMS, RF
- Simulation and modelling
- Software as a service and service architectures

On a **regional level**, each hub's activities seem to be aligned with the RIS3 strategies. A concise list of all hubs on national and regional level is presented as follows:

¹ IPAR4.0 Technology Platform, <https://www.i40platform.hu>

1. Fully operational DIHs

Hub name	City	NUTS2 region	Country	Smart Specialisation (SS)	Link to SS	AI	HPC	Cyber Security	Association to EU-funded project
am-LAB	Szombathely	Nyugat-Dunántúl	Hungary	Manufacturing	ICT and information services	-	-	-	"Smart Factories in the new EU Member States" project
Demola-Budapest	Budapest	Közép-Magyarország (NUTS 2013)	Hungary	General innovation	ICT and information services	X	X	-	-

2. In preparation DIHs

Hub name	City	NUTS2 region	Country
EIT Digital Budapest Node	Budapest	Közép-Magyarország (NUTS 2013)	Hungary
Industry 4.0 National Technology Platform	Budapest	Közép-Magyarország (NUTS 2013)	Hungary

3. RTOs/universities that had a DIH role in an EU project

A list of RTOs/universities that have participated in the EU FP7 and H2020 projects, and *are not mentioned above*, is presented in the following tables:

a. H2020 participation²

Project Topic Code	Project Acronym	Project Duration	Project End Date	Participant Legal Name	Participant Role	Participant Short Name	Core Legal Entity Type	Research Organisation	Project Topic Code
ICT-01-2014	EuroCPS	36	31/01/2018	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	PARTICIPANT	BME	PUBLIC	Yes	ICT-01-2014
ICT-04-2017	TETRAMAX	48	31/08/2021	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	PARTICIPANT	BME	PUBLIC	Yes	ICT-04-2017
ICT-04-2017	Smart4Europe	24	31/08/2019	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	PARTICIPANT	BME	PUBLIC	Yes	ICT-04-2017
ICT-04-2017	FED4SAE	36	31/08/2020	BUDAPESTI MUSZAKI ES GAZDASAGTUDOMANYI EGYETEM	PARTICIPANT	BME	PUBLIC	Yes	ICT-04-2017

² Data available in CORDIS (http://cordis.europa.eu/home_en.html) and in the European Commission databases.

FOF-12-2017	L4MS	42	31/10/2018	PANNON GAZDASAGI HALOZAT EGYESULET	PARTICIPANT	PBN	PRIVATE	No	FOF-12-2017
FOF-12-2017	CloudiFacturing	42		Bakony Elektronika Kft.	PARTICIPANT	BE	PRIVATE	No	FOF-12-2017
FOF-12-2017	CloudiFacturing	42		INNOMINE GROUP KFT	PARTICIPANT	INNOMINE	PRIVATE	No	FOF-12-2017
FOF-12-2017	CloudiFacturing	42		DSS Consulting Informatikai és Tanácsadó Kft.	PARTICIPANT	DSS	PRIVATE	N/A	FOF-12-2017
FOF-12-2017	CloudiFacturing	42		MAGYAR TUDOMANYOS AKADEMIA SZAMITASTECHNIKAI ES AUTOMATIZALASI KUTATOINTEZET	PARTICIPANT	SZTAKI	PUBLIC	Yes	FOF-12-2017

b. FP7 participation²

Project Number	Project Acronym	Project Duration	Project Start Date	Project End Date	Project Number of Participants	Participant Short Name	Participant Legal Name	Participant Role	Organisation Type
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	MTA SZTAKI	MAGYAR TUDOMANYOS AKADEMIA SZAMITASTECHNIKAI ES AUTOMATIZALASI KUTATOINTEZET	Participant	REC
632860	I3H	30	01-Jul-2014	31-Dec-2016	9	EOTVOS LORAND UNIVERSITY	EOTVOS LORAND TUDOMANYEGYETEM	Participant	HES

4. Regions in Hungary that have no DIHs

- Dél-Alföld
- Dél-Dunántúl
- Észak-Alföld
- Észak-Magyarország
- Közép-Dunántúl
- Pest