

Ireland (IE)

Ireland's national strategy for digitising industry is *National Digital Strategy (NDS)*.¹ It was launched in 2013 and it is part of the Enterprise 2025, the Government's long-term enterprise policy, an ambitious strategy to deliver economic growth over the next decade, 2015 to 2025.

Supports for Advanced Manufacturing in Ireland is highlighted as a specific priority action in Project Ireland 2040, Ireland's National Development Plan. There are plans to further scale our network of research and technology centres operating in this space. This includes building on existing capacity (Irish Manufacturing Research - IMR and the SFI Centres iForm and CONFIRM). An additional large-scale centre for technology development, demonstration and training in areas of discrete manufacturing has also been proposed and is currently under consideration. A joint bid involving each of these entities could provide the scale required to be truly European Digital Innovation Hub.

Other specific projects identified in the National Development Plan include strengthening of the HPC capacity in Ireland (mainly through ICHEC) and membership of EuroHPC Joint Undertaking, new Regional Technology and Innovation Poles, a National Design Centre, and a new Space Technologies Programme. These projects will be aligned with the European Commission's agenda on Digital Innovation Hubs. The proposed development of EU's DIHs initiative will be taken into consideration in the design and implementation of each one of the aforementioned initiatives by the respective ministries responsible for industry's digital transformation in Ireland.

On a **national level** Ireland has *11 Digital Innovation Hubs* (5 fully operational and 6 in preparation status) covering various market domains (agriculture, fishing, construction, manufacturing (food products, textiles, chemicals, basic and fabricated metal products, electrical and optical equipment, machinery, electrical equipment), transport, electricity, public administration, education and health) 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
- Broadband and other communication networks (e.g. 5G)
- Cloud computing
- 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)
- Location based technologies (e.g. GPS, GIS, in-house localization)
- Micro and nano electronics, smart system integration
- New Media technologies
- Photonics, electronic and optical functional materials
- Organic and Large Area Electronics (OLAE)

¹ National Digital Strategy (NDS), <http://www.dccae.gov.ie/en-ie/communications/topics/Digital-Strategy/Pages/default.aspx>

- 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. Fully operational DIHs

Hub name	City	NUTS2 region	Country	Smart Specialisation (SS)	Link to SS	AI	HPC	Cyber Security	Association to EU-funded project
Centre for Applied Data Analytics and Machine Intelligence, CeADAR	Dublin	Southern and Eastern (NUTS 2013)	Ireland	Data analytics and machine intelligence	Data Analytic, Management, Security & Privacy	X	-	X	-
Insight Centre for Data Analytics	Galway	Border, Midland and Western (NUTS 2013)	Ireland	Data analytics	Data Analytic, Management, Security & Privacy	X	X	X	-
Irish Centre for Cloud Computing and Commerce (IC4)	Dublin	Southern and Eastern (NUTS 2013)	Ireland	Cloud computing	Future Networks & Communications	-	X	X	-
Irish Manufacturing Research	Rathcoole	Southern and Eastern (NUTS 2013)	Ireland						
Tyndall National Institute, Tyndall	Cork	Southern and Eastern (NUTS 2013)	Ireland	ICT hardware and systems	Future Networks & Communications	-	X	-	-

2. In preparation DIHs

Hub name	City	NUTS2 region	Country
ADAPT Centre	Dublin	Southern and Eastern (NUTS 2013)	Ireland
Harbour Innovation Campus	Dublin	Southern and Eastern (NUTS 2013)	Ireland
Intelligent Systems for Production and Resource Optimisation in Industry	Limerick	Southern and Eastern (NUTS 2013)	Ireland
Irish Centre for High End Computing, ICHEC	Galway City	Border, Midland and Western (NUTS 2013)	Ireland
Irish Centre for Manufacturing Research (ICMR)	Kildare	Southern and Eastern (NUTS 2013)	Ireland
The Irish Software Research Centre,	Limerick	Southern and Eastern (NUTS 2013)	Ireland

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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-02-2014	SMARTER-SI	36	31/01/2018	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	PARTICIPANT	TNI	PUBLIC	Yes	ICT-02-2014
ICT-02-2014	GateOne	36	31/12/2017	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	PARTICIPANT	UCC	PUBLIC	Yes	ICT-02-2014
ICT-04-2017	FED4SAE	36	31/08/2020	INTEL RESEARCH AND DEVELOPMENT IRELAND LIMITED	PARTICIPANT	INTEL	PRIVATE	No	ICT-04-2017
FOF-12-2017	MIDIH	36	30/09/2020	IRISH MANUFACTURING RESEARCH COMPANY LIMITED BY GUARANTEE	PARTICIPANT	IMR	PRIVATE	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
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	DCU	DUBLIN CITY UNIVERSITY	Participant	HES
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	CERX	CERAMIX IRELAND LTD	Participant	PRC

4. Regions in Ireland that have no DIHs

None

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