

United Kingdom (UK)

United Kingdom's national initiatives and strategies for digitising industry are:

- *Digital Strategy*¹: A strategy that aims at UK's industry digitisation.
- *Green paper on Industrial Strategy*²: A paper that sets out 10 pillars with the aim to drive forward UK's industrial strategy across the entire economy: science, research and innovation; skills; infrastructure; business growth and investment; procurement; trade and investment; affordable energy; sectoral policies; driving growth across the whole country; and creating the right institutions to bring together sectors and places.
- *Manufacturing Catapult*³: is the catalyst for the future growth and success of advanced manufacturing in the UK. It comprises 7 Technology and Innovation centres which work with companies of all sizes to bridge the gap in – and accelerate the activity between – technology concept and commercialisation. These centres offer access to leading edge equipment, expertise and an environment of company collaboration.

On a **national level** UK has 17 *Digital Innovation Hubs* (9 fully operational and 8 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)
- Robotics and autonomous systems
- Screens and display technologies
- Sensors, actuators, MEMS, NEMS, RF

¹ Digital Strategy, <https://www.gov.uk/government/news/uk-digital-strategy-the-next-frontier-in-our-digital-revolution>

² Green paper on Industrial Strategy, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/586626/building-our-industrial-strategy-green-paper.pdf

³ Manufacturing Catapult, <https://hvm.catapult.org.uk/>

- 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
Bristol Robotics Laboratory's RIF	Bristol	Gloucestershire , Wiltshire and Bristol/Bath area	United Kingdom	Robotics	-	X	-	-	ECHORD++
CPI	Sedgefield	Tees Valley and Durham	United Kingdom	General innovation	Information economy	-	X	X	-
Digital Catapult	London	Inner London - West	United Kingdom	General innovation	-	X	X	X	-
EPCC	Edinburgh	Eastern Scotland (NUTS 2013)	United Kingdom	Supercomputing	-	X	X	-	I4MS (FORTISSIMO)
Future Cities Catapult	London	Inner London - East	United Kingdom	General innovation	Information economy	X	-	X	-
Manufacturing Technology Centre	Coventry	Herefordshire, Worcestershire and Warwickshire	United Kingdom	Manufacturing	-	X	X	X	I4MS (Access to I4MS), Robotics (ROBOTT-NET)
Sunderland Software City	Sunderland	Northumberland and Tyne and Wear	United Kingdom	Software	Information economy	X	X	X	-
The AMRC's Factory 2050	Sheffield	South Yorkshire	United Kingdom	Manufacturing	-	X	-	-	-
The High Value Manufacturing Catapult	Solihull	West Midlands	United Kingdom	Manufacturing	-	X	X	-	-

2. In preparation DIHs

Hub name	City	NUTS2 region	Country
Compound Semiconductor Applications Catapult	Cardiff	East Wales	United Kingdom
Cranfield University	Bedford	Bedfordshire and Hertfordshire	United Kingdom
IDEAL (Innovation and Digital Enterprise Alliance London)	London	Inner London - East	United Kingdom

OptimiseHub - South Coast Digital Innovation Hub	Portsmouth	Hampshire and Isle of Wight	United Kingdom
Satellite Applications Catapult	Oxfordshire	Berkshire, Buckinghamshire and Oxfordshire	United Kingdom
Transport Systems Catapult	Milton Keynes	Berkshire, Buckinghamshire and Oxfordshire	United Kingdom
UK Digital Health Hub	London	Inner London - East	United Kingdom
Web Science Institute	Southampton	Hampshire and Isle of Wight	United Kingdom

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 participation⁴

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
FoF-09-2015	Fortissimo 2	36	31/10/2018	MICROPACK (ENGINEERING) LTD	PARTICIPANT	MICROPACK	PRIVATE	No	FoF-09-2015
FoF-09-2015	Fortissimo 2	36	31/10/2018	ICON TECHNOLOGY & PROCESS CONSULTING LIMITED	PARTICIPANT	ICONCFD	PRIVATE	No	FoF-09-2015
FoF-09-2015	Fortissimo 2	36	31/10/2018	THE UNIVERSITY OF EDINBURGH	COORDINATOR	UEDIN	PUBLIC	Yes	FoF-09-2015
FOF-12-2017	MIDIH	36	30/09/2020	UNIVERSITY OF STRATHCLYDE	PARTICIPANT	USTRAT	PRIVATE	Yes	FOF-12-2017
FOF-12-2017	AMable	48	31/08/2021	TWI LIMITED	PARTICIPANT	TWI LIMITED	PRIVATE	Yes	FOF-12-2017
FOF-12-2017	CloudiFacturing	42	31/03/2021	THE UNIVERSITY OF WESTMINSTER LBG	PARTICIPANT	UOW	PRIVATE	Yes	FOF-12-2017
FOF-12-2017	CloudiFacturing	42	31/03/2021	THE UNIVERSITY OF NOTTINGHAM	PARTICIPANT	UNOTT	PUBLIC	N/A	FOF-12-2017
ICT-01-2014	CPSELabs	36	31/01/2018	UNIVERSITY OF NEWCASTLE UPON TYNE	PARTICIPANT	UNEW	PUBLIC	Yes	ICT-01-2014
ICT-02-2014	GateOne	36	31/12/2017	TEESSIDE UNIVERSITY	PARTICIPANT	TEESSIDE	PUBLIC	Yes	ICT-02-2014
ICT-04-2017	TETRAMAX	48	31/08/2021	THE UNIVERSITY OF EDINBURGH	PARTICIPANT	UEDIN	PUBLIC	Yes	ICT-04-2017
ICT-04-2017	SmartEEs	36	13/09/2020	Centre for Process Innovation Limited	PARTICIPANT	CPI	PRIVATE	Yes	ICT-04-2017

⁴ Data available in CORDIS (http://cordis.europa.eu/home_en.html) and in the European Commission databases.

ICT-04-2017	FED4SAE	36	31/08/2020	DIGITAL CATAPULT	PARTICIPANT	DIGICAT	PRIVATE	Yes	ICT-04-2017
ICT-04-2017	DIATOMIC	36	31/08/2020	F6S NETWORK LIMITED	PARTICIPANT	F6S	PRIVATE	No	ICT-04-2017
ICT-25-2015	EUROPRACTICE 2016	24	30/06/2018	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL	PARTICIPANT	STFC	PUBLIC	Yes	ICT-25-2015

b. FP7 participation⁴

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
608849	EuRoC	48	01-Jan-2014	31-Dec-2017	48	LU	LOUGHBOROUGH UNIVERSITY	Participant	HES
608849	EuRoC	48	01-Jan-2014	31-Dec-2017	48	UoB	THE UNIVERSITY OF BIRMINGHAM	Participant	HES
608849	EuRoC	48	01-Jan-2014	31-Dec-2017	48	INNO	INNOCENTIVE EMEA LTD	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	UBRUN	BRUNEL UNIVERSITY LONDON	Participant	HES
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	CTOOLS	CHARLES ROBINSON (CUTTING TOOLS) LTD	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	UOW	THE UNIVERSITY OF WESTMINSTER LBG	Coordinator	HES
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	CMCL	COMPUTATIONAL MODELLING CAMBRIDGE LIMITED	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	SIM8	SIMUL8 CORPORATION LTD	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	SAK	SAKER SOLUTIONS LIMITED	Participant	PRC
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	Hobsons	HOBSONS BREWERY AND COMPANY LIMITED	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	TBEL	TIDY BOOKS EUROPE LIMITED	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	Outl	OUTLANDISH LLP	Participant	PRC
608886	CloudSME	33	01-Jul-2013	31-Mar-2016	29	Gvol	G-VOLUTION PLC	Participant	PRC
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	STU	UNIVERSITY OF STRATHCLYDE	Participant	HES
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	ICONCFD	ICON TECHNOLOGY & PROCESS CONSULTING LIMITED	Participant	PRC
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	CERC	CAMBRIDGE ENVIRONMENTAL	Participant	PRC

							RESEARCH CONSULTANTS LTD	ant	
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	NAG	NUMERICAL ALGORITHMS GROUP LTD	Participant	OTH
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	ENGYS-UK	ENGYS LTD	Participant	PRC
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	IES	INTEGRATED ENVIRONMENTAL SOLUTIONS LIMITED	Participant	PRC
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	FORMTECH	FORMTECH COMPOSITE LIMITED	Participant	PRC
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	UEDIN	THE UNIVERSITY OF EDINBURGH	Coordinator	HES
609029	FORTISSIMO	42	01-Jul-2013	31-Dec-2016	123	SIPLtd	SEISMIC IMAGE PROCESSING LTD	Participant	PRC
609046	LASHARE	48	01-Sep-2013	31-Aug-2017	69	TWI	TWI LIMITED	Participant	REC
609046	LASHARE	48	01-Sep-2013	31-Aug-2017	69	LEXP	LASER EXPERTISE LTD	Participant	PRC
609046	LASHARE	48	01-Sep-2013	31-Aug-2017	69	SET	SET SCIENTIFIC & EFFICIENT TECHNOLOGIES LIMITED	Participant	PRC
609100	CloudFlow	46	01-Jul-2013	30-Apr-2017	47	UNott	THE UNIVERSITY OF NOTTINGHAM	Participant	HES
609100	CloudFlow	46	01-Jul-2013	30-Apr-2017	47	CU	COVENTRY UNIVERSITY	Participant	HES
609100	CloudFlow	46	01-Jul-2013	30-Apr-2017	47	PKT	POWERKUT LIMITED	Participant	PRC

4. Regions in the United Kingdom that have no DIHs

- Bedfordshire and Hertfordshire
- Cheshire
- Cornwall and Isles of Scilly
- Cumbria
- Derbyshire and Nottinghamshire
- Devon
- Dorset and Somerse
- East Anglia
- East Yorkshire and Northern Lincolnshire
- Essex
- Greater Manchester
- Highlands and Islands
- Kent
- Lancashire
- Leicestershire, Rutland and Northamptonshire
- North Eastern Scotland
- North Yorkshire

- Northern Ireland
- Outer London — East and North East
- Outer London — South
- Outer London — West and North West
- Shropshire and Staffordshire
- Southern Scotland
- Surrey, East and West Sussex
- West Central Scotland
- West Wales and The Valleys
- West Yorkshire