

Annex 1: Member States and Regional Initiatives

| Member State/Regions | Programme | Objective | Focus | Priorities | Method | Funding | Source |
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| Austria | Produktion der Zukunft (Production of the Future) | Increase innovation in Austrian production sector Improve cooperation and networks at European and international level Improve competitiveness of Austrian industry | Technological and process innovation | Efficient production processes and systems; flexible manufacturing processes; value networks; methods and tools for planning, simulation and data-management; additive manufacturing; material science; bio-based industries; Nano-technologies | RTD projects for cooperative applied research and development; Endowed professorships; Pilot factories; Open stakeholder platform; Competence centres; Basic programme –bottom-up; Bridge (Transfer programme) | Up to 125 Mn€ per year | http://www.bmvit.gv.at/innovation/produktion/index.html http://www.ffg.at/ http://www.ffg.at/produktion |
| Belgium | MADE DIFFERENT – Factories of the future | Increasing overall competitiveness of the manufacturing industry | Process innovation | World-class production technologies; Simultaneous product and production development; Human-centred production; Networked factory; Eco-production; Smart production | Research programmes in public-private partnerships | 8.4 Mn€ | http://www.madedifferent.be/ |
| Belgium-Flanders | Flanders Make iMinds | Strategic research centre Flanders' digital Research & Incubation Institute | Product & technology innovation | Factory of the Future; Vehicle of the future; Machine of the future; IoT; Data; Security | Industry driven research projects carried out by a mix of industry partners and university research groups. | | www.flandersmake.be www.iminds.be |
| Germany | Industrie 4.0 | Prepare German industry for the future of production | Technological innovation, in particular CPS | Smart factory; IoT; Smart production | High-level advisory board Industry 4.0 with industry leaders and thematic public-private partnerships | Up to 200 Mn€ | http://www.hightechstrategie.de/de/industrie-4-0-59.php http://www.plattform-i40.de/plattform/organisation http://www.bmbf.de/de/9072.php |
| Germany | Smart Service World | Innovative services for the digital economy | Integration of cross sectoral value networks Cross usage of data between different areas of daily life | Combination of CPS; data and services; Platform development | Innovation projects | Up to 50 Mn€. | http://www.bmwi.de/DE/Themen/Digitale-Welt/Internet-der-Zukunft/smart-service-welt.html |

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| Germany | Autonomik for Industrie 4.0 - Production, Products, Services in the Internet of the Future | Foster autonomous systems and highly flexible production infrastructures that enable disruptive products | logistics, engineering models (i.e. decision making support schemes), working conditions (human-machine interaction, safety & security), service robotics | Skills, migration, standards, security | 19 R&I-projects, which aim to accelerate the process of transferring R&D findings into development of marketable technologies esp. in Industry and Smart Home / Building, supported by accompanying research on cross-cutting issues, conferences, workshops and trade fair appearances. | 55 Mn€ 2014 - 2017 | http://autonomik40.de |
| Germany - Ostwestfalen-Lippe | It's OWL | Leading position for intelligent technical systems | Technological and Process Innovation for Production | Achieve a leading position for intelligent technical systems; Provide enabling technology for Industrie 4.0 applications; Innovation with main focus on SME's; Strengthen competitiveness of SME's; Combine strength of academia with entrepreneurial skills from industry; Secure existing and create additional employment; Attract talent (Industry and/or academia); | Co-operation culture Specific program structure Symbioses of ICT, Robotics and Engineering skills in top quality available in Region Strong support from industry with Top Management commitment, financial contribution and active participation Dedicated transfer projects meeting the requirements of SME's Efficient governance structure | 100 Mn€ in 5 years (40Mn€ public funding, 60Mn€ private funding) | http://www.its-owl.de |
| Germany – Baden-Württemberg | Allianz Industrie 4.0 BW | Enable all SMEs of Baden-Württemberg to develop and use Industrie 4.0 technologies and products | SME (down to 50 employees) | Improve awareness, knowledge , enabling to develop “own” solutions Point to supporting bodies like center of commerce, | Workshops; Demonstrators; Applications Centers; Joint R&D projects; Involving of already existing clusters in BW | Initial ~ 15 Mn€ | |
| Denmark | MADE – Manufacturing Academy of Denmark | Support the manufacturing industry in Denmark and maintain its position as a leader of innovation | | | | 183.5 Mn DKK | http://made.dk/welcome |
| Greece | Regional Operational Programme of Region of Western Greece for the Period 2014-2020 | Digital Technology as a Pillar for Manufacturing and Services in Region Western Greece | Advance Materials, Nano – Technology and Microelectronics supported by ICT | Strengthen of Research, Technological Development (RTD) & Innovation Improving access, quality and use of information and communication technologies (ICT) Improving the Competitiveness of manufacturing SMEs using among others ICT | Research into a Regional Public Private Partnership (RWG – PPP). | Up to 30 Mn € (tbc) | |

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| | | | | Investment in education, training and vocational training for skills acquisition and lifelong learning | | | |
| Spain | Estrategia Fabricacion Avanzada | To strengthen the position of the Basque Country as an economy with an industrial base through the promotion of knowledge intensive manufacturing | Industry upgrading for economic sustainability; Manufacturing efficiency for environmental sustainability; Quality employment for social sustainability | Added value: more knowledge intensive manufacturing; Integration of KETs: multi-disciplinary and technological convergence; Global value chains, clusters 2.0; Industrialisation of research results; Talent: education and on the job training | Research programmes for industry, large R&D projects (ETORGAI) and smaller projects (GAITEK) and for research organisations and universities, for strategic research in cooperation (ETORTEK) and for results oriented research (EMAITEK) | Up to 400 Mn € per year in R&I grants, matched by private contributions similar in amount. | http://app3.spri.net/ayudaspri/?idioma=es http://www.spri.eus/en/ris3-euskadi |
| Italy | Cluster Fabbrica Intelligente CFI (Intelligent Factories Cluster) | To create and organize a long lasting Italian Manufacturing community able to propose research agendas generate research results and valorize research outcomes | Products, Processes, Manufacturing System, Manufacturing networks | Technologies and systems for personalized production; Strategies, methodologies and tools for sustainable production; Valorization of humans in Factories; High efficiency in production; Innovative manufacturing processes; Evolutive and adaptable manufacturing systems; Strategy and management for next generation manufacturing systems | Roadmapping, strategic research agendas RTD projects for cooperative applied research and development Innovation projects Education projects | 45 Mn€ (34 Mn€ public funding + 11 Mn€ private funding) | http://www.fabbricaintelligente.it/ |
| Italy - Lombardia | Cluster Fabbrica Intelligente Lombardia AFIL (Cluster Intelligent Factories Lombardy) | Build, maintain and coordinate a stable Manufacturing Community in Lombardy expressing common priorities in manufacturing research | Products, Processes, Manufacturing System, Manufacturing networks | Production with innovative processes; Evolutive and adaptable manufacturing systems; Highly efficient production processes; Production of personalized goods; Factories for the people; Manufacturing Systems for environmental sustainability; Networking of collaborative and dynamic enterprises | Roadmapping, strategic research agendas RTD projects for cooperative applied research and development Innovation projects Education projects | (tbc). Intelligent Factories is one of the top priorities of the RIS3 strategy for Lombardy Region | http://www.afil.it |
| Finland | MANU - Digital manufacturing technology & systems (2012-2017) | To increase competitiveness of the Finnish manufacturing industry by means of digitalization. | | Demanding welded structures and their simulation; Digital design and manufacturing; Machining and its control through digitalization; information management; Manufacturing Execution System for SMEs; Research on 3D printing technologies | PPP research programme | 35M€ (Industry 45%, Tekes 45%, Universities & Research Institutes 10%) | http://www.fimecc.com/content/manu-future-digital-manufacturing-technologies-and-systems |
| Finland | S-STEP - Smart technologies for lifecycle performance (2014-2018) | To create an industrial internet technology that enables superior services for the Finnish technology industry. | | Next level on machines and devices embedded intelligence; Capabilities to harness the industrial internet technologies for significant value creation; Industry specific simulation and prediction technologies; Empowered field service personnel with novel interaction & data | PPP research programme | 25,6M€ (Industry 45%, Tekes 45%, Universities & Research Institutes 10%) | http://www.fimecc.com/content/s-step-smart-technologies-lifecycle-performance-0 |

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| | | | | analysis tools for easy access to situational relevant knowledge. | | | |
| Finland | SIMP - System integrated metal production (2014-2018) | To further increase its global competitiveness by integrating digitalisation and sustainability in a system integrated manner. | | Software development focusing on digitalizing complex process models and making them operable in real-time in a gate-to-gate systemic plant environment. | PPP research programme | 43,8 M€ (Industry 45%, Tekes 45%, Universities & Research Institutes 10%) | http://www.fimecc.com/programs/simp |
| Finland | S4Fleet (2015-2018) | To improve profit creation of service business in technology-based firms by creating enablers for high-volume, dynamic and global service business | | Intelligence to enable strategic decision making over the global fleet and transformation towards service business; Capabilities to enable global operational excellence and dynamic service delivery over distributed fleet; Technological ICT solutions and algorithms for fleet management | PPP Research Programme | 50,6 M€ (Public Tekes-funding pending) (Industry 45%, Tekes 45%, Universities & Research Institutes 10%) | http://www.fimecc.com/content/s4fleet |
| Finland | Industrial Internet – Business Revolution (2014-2019) | Renew the business operations of companies through the Industrial Internet and encourage companies from different fields to engage in new kinds of cooperation. | | Refinement of big data masses to support business, business based on machine-to-machine communication and real-time service and production processes. | Industry projects and collaborative company-academia projects. An open, industry driven forum 'Finnish Industrial Internet Forum (FIIF, www.fiif.fi) has been established catalyzes starting, testing, planning, breeding fast activities, which concretize the Industrial Internet visions into a good, sustainable business for Finnish companies, incl. speeding-up new businesses enabled by the Industrial Internet; developing new business and growth for existing companies and their value chains; finding new seeds for SME growth through new products, services and markets and new markets for product, service and ICT companies. | 100 M€ (Tekes funding appr. 50 M€) | http://www.tekes.fi/en/programmes-and-services/tekes-programmes/industrial-internet--business-revolution/ |
| France | Usine du Futur | Competitiveness Employment SME's development | SME's diagnostics and modernization incentives Development of the national offering Showcase pilot projects Eco projects Development of the advanced | Supply Chain optimization. Manufacturing as a Service (MaaS). SME's integration. Collaboration and execution hubs. Support of eco-investment. Digitalization, Design for Manufacturing, Manufacturing Intelligence. Support of flexibility and diversity. Advanced manufacturing techniques (additive manufacturing, composites, non-destructive inspection), and their dissemination. | Regional Programs for the diagnostic of 3000 SMEs, and support of modernization projects Schemes for Eco performance projects Industrial pilot projects R&D projects | - | http://www.economie.gouv.fr/nouvelle-france-industrielle |

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| | | | manufacturing techniques | Man (augmented through Cobotics, Virtual Reality, on-line knowledge services) placed at the core of the factory of the future. in order to leverage his cognitive functions for innovation, excellence and continuous change. 'System of systems' vertical integration from Supply Chain down to IoT interfaces. Manufacturing continuous adaption through collaborative innovation. | | | |
| France / Ile-de-France | Plan "Usine du future" Ile-de-France RIS 3 strategy Systematic cluster "Usine du future" roadmap | Improve the productivity and the competitiveness of manufacturing companies Support pioneering projects Structuring the FoF community; identify excellent collaborative projects and help them access to funding | Support measures targeting SMEs Engineering of complex systems and software | Modernisation of the production tool; Integration of digital and information systems; Vocational training and well-being in the workplace; Clean, energy sober and safe factory. Health; transport/mobility; energy/environment Advanced manufacturing processes; Adaptative and cognitive production systems; Digital technologies at the heart of resource efficient factories; Human centred manufacturing | Projects for help SMEs to elaborate strategic evolution scenarios; and to improve their production performance all along the product life cycle; Bourget workshops: 2 days training for aeronautics companies; Collaborative R&D projects Networking / public-private collaboration at regional scale | 2 Mn€ for 2 years for a start. (tbc) Around 25 Mn € | http://www.pole-astech.org/site/pages/index.php?doi=859b53568eb0059f7e6cbda05d35a77d http://www.pic2europa.fr/sites/www.pic2europa.fr/files/1830_rapport_final_S3_IDF_13_0916.pdf http://www.systematic-paris-region.org/sites/default/files/content/page/attachments/feuille%20de%20route%20Usine%20du%20Futur.pdf |
| Netherlands | Smart Industry | Dutch Industry fit for the Future | Acceleration of introduction of ICT in manufacturing and adaption of business value chains | Accelerating use of ICT at SME Leading fieldlabs in 2015, more to follow in 2016 Manufacturing Knowledge Skills ICT (security, big data, software) | Jointed program office (with Min Economic Affairs, FME (industrial association), TNO, Chamber of Commerce and ICT-Nederland) and per action line own teams and for fieldlab teams each running their own (regional) fieldlab program | Complex multi-project funding, mix of H2020 and regional EFRO (50-100 Mn€) | http://www.smartindustry.nl |
| Portugal | PRODUTECH – Production Technologies Cluster | Increase the Competitiveness of Manufacturing Industry by developing, demonstrating and promoting Advanced Manufacturing Technologies and Systems | Advanced Manufacturing Systems | New business models; Intelligent Production systems; Performance, Flexibility and Efficiency Modelling and simulation; Operations Management and Logistics; Networked production systems; Advanced Technologies Energy and environmental efficiency Advanced tools for new products and systems development; | R&D and Innovation Projects (individual and cooperative) Dissemination and Demonstration Projects and Activities Cooperation Actions Internationalization Projects and Activities | Core Activities and Projects: Up to 20 Mn€ + Complementary Projects | www.produtech.org http://mobilizadores.produtech.org/en http://portal.produtech.org/ |

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| | | | | Active and passive safety in production systems | | | |
| United Kingdom | Innovate UK | Support and connect innovative businesses in UK to accelerate sustainable economic growth. | UK businesses | Invest in research, development and innovation to make the UK the best place in the world to run an innovative business or service. | Wide range of funding programmes both single company and collaborative R&D projects, with both open and thematic calls. Innovate UK also manages a number of networks, including KTN (Knowledge Transfer Network) and the NCP and EEN networks within the UK. It also funds Catapults, a series of physical centres with the facilities and expertise to enable businesses and researchers to collaboratively solve key problems and develop new products and services on a commercial scale.. | 2013/14 budget was 440 Mn£ | https://www.gov.uk/government/organisations/innovate-uk |
| United Kingdom | High value Manufacturing Catapult | Drive growth of manufacturing within UK | Businesses in the field of high value manufacturing. i.e. a high level of R&D intensity, leading to significant growth. Customers include large multinationals to small spin-out companies and anything in between. | Working with UK and international organisations looking to establish or grow UK R&D capability or UK manufacturing. Industrial scale up of new technologies and processes | Invest equipment and skilled personnel in the HVMC's 7 Technology and Innovation centres around the UK which is then available on an open access basis for CR&D and industrial projects with companies of all sizes. | Core funding from InnovateUK 30Mn £ per/annum supplemented by project funding and funds secured from other sources | https://hvm.catapult.org.uk/ |
| United Kingdom - Scotland | Action Plan for Manufacturing | To grow and sustain a competitive manufacturing sector | Develop Leadership and Skills Supply Chain Capability | Advanced Manufacturing pilot Enhancing SME capability through investment and innovation | Research into public/private collaboration. | | |
| Sweden | Produktion 2030 | In 2030 Sweden is the primary choice for sustainable production | Develop Leadership and Skills in sustainable production | Environmentally sustainable production; Flexible manufacturing processes; Virtual production development and simulation; Human-centred production systems; Product and production based services; Integrated product and production development | Research and innovation projects; Knowledge and technology transfer to SMEs | 50 Mn£ | http://www.produktion2030.se/ |