

# Analysis – EU Programmes

Status at January 09, 2018



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### Research Interest:

Global value chains, machines and equipment, advanced manufacturing, BRICS, Infrastructure, Public investment, Public policy, Gendered innovations

## H2020 – LEIT - Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing & Processing

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### DT-FOF-06-2019: Refurbishment and re-manufacturing of large industrial equipment (IA)

<b>Specific Challenge:</b>	In line with the circular economy, lifetime extension can limit high replacement costs of major industrial infrastructures. This can be achieved through refurbishment, re-manufacturing, re-use, upgrading, in-situ repair, improved maintenance and more conservative utilisation of large industrial equipment of the kind used in manufacturing. These actions can significantly extend the useful life of heavy machinery, and improve the return on investment from major capital items.
<b>Scope</b>	<p>This topic is for demonstration projects to establish the feasibility of lifetime extension of large industrial equipment of the kind used in manufacturing, including modernisation of equipment for data collection and interfaces. Proposals should cover one or more of the following areas:</p> <ul style="list-style-type: none"><li>• refurbishment and/or upgrading of large industrial equipment;</li><li>• re-manufacturing and re-use of equipment;</li><li>• inspection, functional diagnosis and in-situ repair of damage;</li><li>• Maintenance and optimised utilisation of large industrial equipment.</li></ul> <p>These measures can improve the return on investment from major capital items. The scope covers large-scale electrical and/or mechanical machinery in plants rather than electronic equipment, which earlier projects have already covered. Demonstration activities need to take place in real industrial settings and include validation of at least two industrial demonstrators in different sectors, enabling the integration and scale-up of the parameters to other industrial environments.</p> <p><i>From TRL 5 to TRL 7 (end of the project).</i> <i>EU recommended budget/project: EUR 12 and 15 million.</i></p>
<b>Expected Impact</b>	<ul style="list-style-type: none"><li>• Open and upgraded facilities at the EU level for the design, development, testing,</li><li>• Material and resource efficiency increased by at least 10%;</li><li>• Life time extension of the targeted large machinery and plants by at least 20%;</li><li>• Increased return on investment from major capital items.</li></ul> <p>Relevant indicators and metrics, with baseline values, should be clearly stated in the proposal.</p> <p><i>Type: <u>Innovation action</u></i></p>
<b>Deadline</b>	21. Feb 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf</a>

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### CE-SPIRE-04-2019: Efficient integrated downstream processes (IA)

<b>Specific Challenge:</b>	Today, process industry operations for downstream processing represent on average 50-60% of the total capital (CAPEX) and operating costs (OPEX) and they account for up to 45% of the process energy in industrial operations. These high costs for downstream processing are often linked to the inefficiencies in the upstream process, due to low conversion and formation of co-products, by-products and/or impurities. Hybrid processing technologies (including chemical and biochemical steps) can provide major advantages in terms of primary process selectivity and sustainability. However, they have not been widely deployed in industry so far. The development of novel technologies for upstream and downstream unit operations, as well as their better integration, could provide significant resource and energy efficiency gains.
<b>Scope</b>	Proposals submitted under this topic are expected to provide novel solutions for a

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deeper integration of upstream and downstream processing operations. Proposals should consider:

- Intensified process technologies presenting multistep upstream processes, potentially exploiting hybrid chemo and bio catalytic technologies as well as process analytical techniques (PAT), in order to maximise production efficiency, selectivity and mitigation of downstream processing;
- Complex downstream operations, integrating different separation techniques and purification steps;
- Modularity and flexibility of the solutions, as well as, potential for transition from batch to continuous operations;
- The technologies proposed should enable increased productivity, purity and quality of products, while lowering the process environmental footprint and increasing resource and energy efficiency;
- The potential for integration in the current industrial scenario, and the replicability of the concept in different sectors of the process industry;
- Increased safety of the work environment.

Proposals should provide proof of economic and industrial feasibility of the technologies involved; and should consider the potential integration in existing installations, as well as their retrofitting. Reduction of production costs and time to market is also expected.

Significant demonstration activities in industrial environments are expected. Demonstration activities in real industrial settings, showing the potential for integration into existing plants and industrial operations, represent a clear added-value to the proposals.

Proposals submitted under this topic should include actions designed to facilitate cooperation with other projects; to enhance user involvement; and to ensure the accessibility and reusability of data produced in the course of the project.

*From TRL 5 to TRL 7 (end of project).*

*EU recommended budget/project: EUR 10 to 14 million*

**Expected Impact**

- 20% decrease in greenhouse gas emission;
- Increased in resource and energy efficiency by at least 20%;
- Novel modular and scalable integrated (upstream-downstream) pilot line technologies with 10% decrease in CAPEX and OPEX;
- Effective dissemination of major innovation outcomes to the current and next generation of employees, through the development of learning resources with flexible usability. These should be ready to be easily integrated in existing curricula and modules for undergraduate level and lifelong learning programmes.

Relevant indicators and metrics, with baseline values, should be clearly stated in the proposal.

*Type: Innovation action*

**Timeline**

21 Feb 2019

**Source**

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf)

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**CE-SPIRE-05-2019: Adaptation to variable feedstock through retrofitting (IA 50%)**

**Specific Challenge:**

Process industry plants have to be operated for a long time to make their operations viable. They include equipment such as furnaces, reactors, raw materials handling and storage systems which sometimes have a lifetime beyond 30 years. Keeping these facilities up to date from a technological and from regulatory point of view (for instance related to zero waste regulations and to the circular economy) is a major challenge. Even industrial plants which are less than 10 years old, are often not equipped for new or renewable (e.g. biomass) materials and alternative or renewable energy input

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	<p>streams. More generally, this increased variety of inputs along with the need for energy efficiency improvements poses a real challenge and requires technological breakthroughs in the process industry.</p>
<b>Scope</b>	<p>Proposals need to cover the following:</p> <ul style="list-style-type: none"> <li>• Implement simulation models and decision support tools for the production chain in an energy intensive sector, including the detection of inefficiencies, in order to allow flexibility with respect to feedstock of variable composition, while offering energy efficiency and product quality;</li> <li>• The development of tools and methodologies to streamline and support retrofitting;</li> <li>• Find the most efficient operational input conditions to optimise the performances;</li> <li>• Develop indicators to modify input variables and its potential of replication across the industry;</li> <li>• Facilitate and adapt the equipment towards a larger number and more diverse feedstock in order to be ready for a transition in which variability in quality, quantity and price of feedstock are key to make the production competitive and sustainable;</li> <li>• Solutions should demonstrate the feasibility and suitability of the concepts of retrofitting at industrial scale.</li> </ul> <p>Demonstration of the technology in different process industries should be undertaken, covering both the technology (new 'plug-ins'), as well as the process control (higher variability of the process requires new Monitoring &amp; Control Systems).</p> <p>Proposals submitted under this topic should include actions designed to facilitate cooperation with other projects; to enhance user involvement; and to ensure the accessibility and reusability of data produced in the course of the project.</p> <p><i>From TRL 5 to TRL 7 (end of the project)</i>  <i>EU recommended budget/project: EUR 8 to 12 million</i></p> <p>As an exception from General Annex D: <b>50%</b> of the eligible costs for beneficiaries and linked third parties that are <b>for profit legal entities</b>.</p>
<b>Expected Impact</b>	<ul style="list-style-type: none"> <li>• Increasing the resource and energy efficiency of the targeted processes by 20%;</li> <li>• Decrease GHG emissions through retrofitting by at least 30%;</li> <li>• Decreased utilisation of fossil resources in the process industry of at least 20%;</li> <li>• Reduced OPEX by 30% and increased productivity by 20%;</li> <li>• Effective dissemination of major innovation outcomes to the current next generation of employees of the SPIRE sectors, through the development, by education/training experts, of learning resources with flexible usability. These should be ready to be easily integrated in existing curricula and modules for undergraduate level and lifelong learning programs.</li> </ul> <p>Relevant indicators and metrics, with baseline values, should be clearly stated in the proposal.</p> <p><i>Type: Innovation action</i></p>
<b>Timeline</b>	21 Feb 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf</a>

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## **DT-SPIRE-06-2019: Digital technologies for improved performance in cognitive production plants (IA)**

<b>Specific Challenge:</b>	<p>Shortage in raw materials, increased energy prices and environmental constraints require the European process industry to improve its performance and flexibility and there are unexploited opportunities for digitising a large range of enterprises of very different size in the process industry.</p> <p>Digitisation endows the production system with capabilities for analysis. This should</p>
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enable the autonomous operation of the system based on embedded cognitive reasoning, while relying on high-level supervisory control. As a consequence, changes in the production process need to be detected and the system needs to be able to respond to these dynamic fluctuations, by adapting the production to stay within the target ranges of production costs and rate, as well as those of sustainability parameters. A fully up-to-date interactive and self-learning process control integrated with management tools is essential to obtain an optimal efficiency, while maintaining adequate flexibility of the system in regard to changing feedstock, energy sources and product demand.

**Scope**

Proposals need to develop new technologies to realise cognitive production plants, with improved efficiency and sustainability, by use of smart and networked sensor technologies, intelligent handling and online evaluation of various forms of data streams as well as new methods for self-organizing processes and process chains. Furthermore, proposals should cover the full digital transformation of a complete plant or site(s) including e.g. data acquisition, communication, automation, analytics, modelling, prediction and standardisation of relevant data interfaces. The following elements should be considered:

- Improvement of online monitoring and innovative control technologies in terms of process performance and flexibility, maintenance needs and product quality;
  - Digital retrofitting of existing assets, integration towards and holistic optimisation of operations, data-analytics, real-time capability, use role-specific representation of information, feedback control & detect deviations and adjust operations immediately decision support (e.g. advanced process control, reactive scheduling);
  - Several among the following concepts: apply low-cost sensors for on-line assessment of product quality and integration into process control; robust optimisation methods to distributed targeted process monitoring; simulation methods for the analysis, characterisation and study of systems for enhanced operations and decision-making combination of various forms of data with cognitive insight to optimise and enhance resources;
  - Replicability and scalability of the concepts should be considered appropriately
- Proposals submitted under this topic should include actions designed to facilitate cooperation with other projects; to enhance user involvement; and to ensure the accessibility and reusability of data produced in the course of the project.

*From TRL 5 to TRL 7 (end of the project).*

*EU recommended budget/project: EUR 6 to 8 million*

**Expected Impact**

Improved capabilities for valid, reliable and real-time control logics of the properties, efficiency and quality of process streams and final products for existing and for more flexible process operation concepts:

- Show potential for improved performance in cognitive production plants;
- Increased production performance, energy and resource consumption, or waste or by-products production will be significantly improved by more than 20%. The targets should be quantified in the proposal and validated during the execution of the demonstration;
- Project outcomes should demonstrate a positive environmental impact, by reducing CO2 emissions compared to the state of the art and in the scale relevant for the different applications;
- Effective dissemination of major innovation outcomes to the current next generation of employees of the SPIRE sectors, through the development, by education/training experts, of learning resources with flexible usability. These should be ready to be easily integrated in existing curricula and modules for undergraduate level and lifelong learning programmes.

Relevant indicators and metrics, with baseline values, should be clearly stated in the proposal.

*Type: Innovation action*

**Timeline**

21 Feb 2019

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<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf</a>
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### CE-SPIRE-01-2020: Industrial symbiosis (IA)

	<i>The call topic is announced for 2020, but not yet specified. Expected at the end of 2018.</i>
<b>Timeline</b>	tbd
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-nmp_en.pdf</a>

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## H2020 – LEIT – Information and Communication Technologies

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### DT-ICT-07-2018-2019: Digital Manufacturing Platforms for Connected Smart Factories

**Specific Challenge** Digital manufacturing platforms play an increasing role in dealing with competitive pressures and incorporating new technologies, applications and services. Advances are needed in digital manufacturing platforms that integrate different technologies, make data from the shop floor and the supply network easily accessible, and allow for complementary applications. The challenge is to fully exploit new concepts and technologies that allow manufacturing companies (especially mid-caps and SMEs) to fulfil the demands from changing supply and value networks.

**Scope** **a) Innovation Action (IA)** - Develop and establish platforms for the connected smart production facilities of the future including their supply chains, driven by EU actors and safeguarding European interest in an area of key importance for the European economy. Proposals need to address at least two industrial sectors with several different use cases, especially in their piloting activities. In accordance with the strategy defined in the multi-annual roadmap<sup>68</sup> of the FoF cPPP, proposals should target at least one of the following ‘grand challenges’:

1. Agile Value Networks: lot-size one (2018 call)
2. Excellence in manufacturing: zero-defect processes and products (2018 call)
3. The human factor: human competences in synergy with technological progress **(2019 call)**
4. Sustainable Value Networks: manufacturing in a circular economy **(2019 call)**

Reference implementations are preferably developed in open-source, with (as far as possible) one permissive open-source licence to be selected for all open-source components. Where applicable, APIs and SDKs are made available to third party developers to develop complementary applications.

For the Innovation Actions in this topic, the four activities and impact criteria as described in the introductory section ‘Platforms and Pilots’ have to be applied. For large-scale piloting and ecosystem building activities, proposals may involve financial support to third parties, as explained in the introductory section ‘Platforms and Pilots’, to support SMEs in piloting and developing prototype applications on top of digital manufacturing platforms.

**b) Coordination and Support Activities (CSA)** are needed to cross-fertilise the Industrial Platform communities, allowing for easier take-up of digital technologies from ongoing and past research projects to real-world use cases, and supporting the transfer of skills and know-how between academia and industry in both directions. Coordination and Support Activities are targeted in the 2019 call.

*EU recommended budget/project:*

- For IA: up to EUR 16 million
- For one CSA up to EUR 2 million

At least one innovation action is supported for each ‘grand challenge’. Maximum one

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	proposal will be selected for the CSA.
<b>Expected Impact</b>	<ul style="list-style-type: none"> <li>• Significant increase in the options for SMEs and mid-caps to integrate different technologies, unlock the value of their data, deploy complementary applications, and to become a more responsive link in changing supply and value networks.</li> <li>• Strengthened competitive position of European platform providers.</li> <li>• Increased cooperation between industrial and academic communities; increased synergy and collaboration between projects.</li> </ul> <p><i>Type of Action: Innovation action, Coordination and support action</i></p>
<b>Timeline</b>	02 Apr 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf</a>

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## H2020 – Societal Challenge 6 – Inclusive, Innovative and Reflective Societies

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### **TRANSFORMATIONS-14-2018: Supply and demand-oriented economic policies to boost robust growth in Europe – Addressing the social and economic challenges in Europe**

#### **Specific Challenge**

Years after the crisis and near-zero interest rates, resilient economic growth is still low in Europe. Boosting economic growth requires concerted actions to simultaneously stimulate supply and demand side economic policies. From the supply side, the “productivity puzzle”, namely the deceleration of productivity growth despite technological advances, has regained the attention of policy and academic communities. With a view to the next decades that will bring far-reaching demographic changes, this situation will become problematic: shrinking working-age populations with fast-increasing numbers of older people and considerations on inter-generational fairness will make strong productivity gains ever more essential. Re-acceleration of productivity growth through creating a strong knowledge base is hence key for maintaining the EU's current economic and welfare position. At the same time, the ways in which knowledge- driven economies work in their national contexts and interact internationally have also changed. Therefore, productivity and growth cannot be addressed without taking into account with greater precision the impact of globalisation on national economies. To understand productivity dynamism, one needs to study its micro foundations (intangible assets, market entry, digitalisation) and the role of public sector intangibles (culture, education, skills) to identify their role in the growth-productivity relationship in Europe.

Availability of data and official statistics for comparative economic research on these challenges is essential. Data provision and its take up in the official statistical systems in Europe is central with a view to supporting policy making. From the demand side angle, weak economic performance may reflect an unusually prolonged shortfall of aggregate demand that may have given rise to what has been called “secular stagnation”. Against this backdrop, the question that arises is what government demand policies can do to boost economic growth, and how the fiscal and monetary policy can have a redefined role in this low growth environment.

#### **Scope**

Building on past economic research in the fields of productivity and growth measurement, proposals should analyse the underlying reasons for the “productivity puzzle”, together with the impact of globalisation and demographic change on national economies, and the distribution of income flows generated by global value chains (for example by the mobility of intangible assets, the role of Multi-National Firms). Proposals should also examine the degree to which productivity may be inadequately measured due to data problems and conceptual gaps. Furthermore, attention should be paid to both alternative explanations and the micro and macro-economic underpinnings of growth and productivity in a global context. In this vein, the barriers for low entry and weak dynamism (finance, skills, knowledge diffusion, scaling-up) in European SMEs

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and start-ups should be elucidated. Understanding the role of the government sector and its intangibles for European growth and productivity dynamism is also important. Research should pay strong attention to improved or even new measurements and accompanying macro- and firm-level statistics on productivity, intangible assets and global value chains and their interactions. Thus, collaborative statistical and economic research should integrate the new and improved statistics and data in the official statistical system in a sustainable fashion. Along with better measurement and statistics, the combined effects of globalisation and technological change in terms of their distributional impacts through labour market dynamics and innovation remain central questions to be addressed.

Furthermore, proposals should focus on understanding whether the growth stagnation of the past years is truly "secular" or not and, what kind of fiscal and monetary policy tools e.g. interest rate policies, would be well equipped to support growth-enhancing reforms. Proposals should focus on understanding whether demand stabilisation policies have changed since the crisis what the role of fiscal and monetary policies, e.g. the role of balance sheet policies, would be with a view to boosting aggregate demand.

*EU recommended budget/project: EUR 3 million*

**Expected Impact**

This research action will foster new economic policy thinking and bring about new statistical advances concerning how to address the challenges of maintaining productivity in an ageing society with intergenerational fairness, investment, globalisation and macroeconomic policies, and will thereby address key concerns of citizens in Europe. The research will improve the European statistical systems and policy design in key economic areas.

*Type of Action: Research and Innovation Action*

**Timeline**

**Open** since Nov, 07; deadline: 13 March 2018

**Source**

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf)

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**DT-TRANSFORMATIONS-02-2018-2019-2020: Transformative impact of disruptive technologies in public services**

**Specific Challenge**

The challenge is to assess the potential benefits and risks of using disruptive technologies in public administrations as well as the social impact, including the impact on public servants, of using them for government processes and governance (e.g. for registers, for archiving, for decision-making processes, etc.). In addition, the political, socio-economic, legal and cultural implications of disruptive technologies and their acceptance are important not only for public administrations, but also for citizens.

**Scope**

The use of disruptive technologies (such as block-chain, big data analytics, Internet of Things, virtual reality, augmented reality, artificial intelligence, algorithmic techniques, simulations and gamification) in public administrations, public goods, public governance, public engagement, public-private partnerships, public third sector partnerships and policy impact assessment is growing and can be very beneficial. Yet, the real potential impact of such technologies and the ways in which they can disrupt the existing landscape of public services and legal procedures and can replace present solutions and processes are largely unknown. As a result, deploying these disruptive technologies in public administration requires a thorough assessment of their potential impact, benefits and risks for the delivery of public goods. Proposals should pilot the technology and should engage multidisciplinary partners, stakeholders and users to examine how emerging technologies can impact the public sector (including the impact on public servants and the relation between public services and citizens) and explore in a wide-ranging fashion the issues surrounding the use of these technologies in the public sector.

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	Proposals should also lead to the development of business plans that would ensure the long-term sustainability of the services offered based on the used technology. <i>EU recommended budget/project: EUR 3 to 4 million</i>
<b>Expected Impact</b>	The action will enable public authorities to develop pathways for the introduction of disruptive technologies while also addressing the societal challenges raised by such technologies. Based on a thorough understanding of users' needs, the action will enhance knowledge on digital democracy; develop new ways of providing public services, of ensuring public governance and of boosting public engagement with the help of disruptive technologies. It will also contribute to developing new practices, to optimising work processes and to integrating evidence-based decision-making processes in public services and in services such as health, education, social welfare and mobility. <i>Type of Action: Research and Innovation action</i>
<b>Timeline</b>	13 March 2018 and 14 March 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf</a>

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## **TRANSFORMATIONS-13-2019: Using big data approaches in research and innovation policy making**

<b>Specific Challenge</b>	To exploit the potential of big data approaches for research and innovation policy making by providing more timely and in depth information on the performance of the research and innovation system and its links to productivity growth.
<b>Scope</b>	<p>Many of the advanced economies have, since the crisis, been faced with a productivity paradox: while the pace of innovation continues to accelerate, productivity growth has come to a quasi-standstill. The reasons for this have been the subject of intense debate over the past years and evidence increasingly points to the importance of the links between productivity growth and research and innovation. Seminal work by the OECD18 has pointed to the importance of technology diffusion in this respect, which could also be linked to the changing nature of the innovation process itself, which is going through profound changes, with notably digitalisation leading to increasing complexity, stronger networking effects and a growing importance of winner takes all characteristics.</p> <p>If research and innovation policy making is to adapt to this rapidly changing environment in an evidence based manner, it needs solid and timely data to support its decisions and it is becoming increasingly clear that official statistics, if relying on traditional sources, cannot continue to provide a full picture of all the dynamics of today's research and innovation systems. However, in today's increasingly digitalised world, alternative sources of data have been emerging exponentially, generated by the use of information and communication technologies and their diffusion through the web. This includes, for instance, information contained in company websites, social media posts, but also increasingly databases being made available by e.g. governments. Such data sources, commonly known as big data, have the advantage of being widely available in a timely manner, have the potential of being able to cover a variety of aspects of research and innovation performance, allow to provide information at a more granular level and examine in a better way social interactions, all of which is not possible through the indicators currently provided by official statistics.</p> <p>Proposals should aim at exploiting the potential of big data to produce information on research and innovation activity, performance, output and/or impact which has the potential to be available in real time, focusing notably on research and innovation investments in the private sector, public-private cooperation and technology diffusion between private actors. Proposals should also take into account aspects of data accuracy and data security.</p>

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	<i>EU recommended budget/project: EUR 1.9 million</i>
<b>Expected Impact</b>	The outcomes of the Research and Innovation Actions are expected to provide research and innovation policy making with more timely and diverse data on research and innovation activity, performance, output and/or impact. <i>Type of Action: Research and Innovation action</i>
<b>Timeline</b>	14 March 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf</a>

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## **DT-GOVERNANCE-05-2018-2019-2020: New forms of delivering public goods and inclusive public services**

**Specific Challenge** Governance is being transformed by new approaches to delivering public services which allow for the involvement of citizens and various other actors. The challenge is to critically assess and support as needed this transformation based on an open collaboration and innovation platform supported by ICT ('government as a platform') and on an open environment and ecosystem with clear frameworks and guidelines for modular services quality ('government as a service') in accordance with the EU eGovernment Action Plan 2016-2020 23 and the European Interoperability Framework Implementation Strategy<sup>24</sup>.

In particular, to deliver better public services, public administrations need to regroup resources together under common infrastructures at the European level that serve the needs of various actors and enable the participation of all relevant communities. In addition, to ensure a cost efficient provision of inclusive digital services, there is a pressing need to identify gaps in accessibility solutions, to establish related best practices, and to promote training, awareness raising and capacity building.

**Scope** In a context of open government and digital democracy, the role of the government is changing due to its use of ICT and to the increasing pervasiveness of ICT across all parts of society. In addition to being a manager of societal assets, government is becoming a provider of tools, opportunities, guidance and incentives for co-creation as well as a guarantor of public value over the longer term.

**a) Research and Innovation action (RIA)** - Proposals should develop and demonstrate the potential for sharing common services with different actors (public and private and third sectors) to achieve efficiency and effectiveness in these collaborations. The proposals should also evaluate the role and responsibility of the public authorities and of the other actors delivering public goods and services in the new governance model and the related partnerships, including in terms of the challenges of ensuring secure access and use. Evidence of the benefits of the full implementation of the once-only and digital-by-default principles and user centricity should also be taken into account.

Proposals should also lead to the development of business plans that would ensure the long-term sustainability of the new governance model. They should engage multi-disciplinary and multi-sectoral teams to explore the complexity of this challenge and to identify the necessary changes as well as the legal, cultural and managerial risks and barriers to its implementation.

*EU recommended budget/project: EUR 3 to 4 million*

**b) Coordination and Support Action (CSA)**

For a cost efficient provision of inclusive digital services, the proposed action will:

1. identify gaps in the current accessibility solutions and establish related best practices,
2. promote training, awareness raising, and capacity building.

*EU recommended budget/project: EUR 1 to 2 million*

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<b>Expected Impact</b>	<p>Solutions for opening up and connecting public administration data and services will have a measurable impact for both businesses and citizens, leading to efficiency gains. The actions will provide for all the elements required to facilitate the migration of public administrations towards forward-looking models for the co-delivery of public services.</p> <p>The actions will provide evidence of how the open government approach may reinforce trust in public institutions, which is strongly associated with citizens' satisfaction from full deployment of inclusive digital government. The actions will also contribute to establishing a culture of co-creation and co-delivery, transparency, accountability and trustworthiness as well as of continuous consultation promoting overall digital accessibility.</p> <p>In addition, to support the implementation of the Web Accessibility Directive, enhanced cooperation on digital accessibility between various stakeholders will result in scalable and more affordable accessibility solutions. Overall, the actions will contribute to the widespread recognition of the need for and benefits of an inclusive Digital Single Market.</p> <p><i>Type of Action: Coordination and support action, Research and Innovation action</i></p>
<b>Timeline</b>	CSA: 13 March 2018 ; RIA: 14 March 2019
<b>Source</b>	<a href="http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf">http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf</a>

## Art. 185 Initiative

### Metallurgy Europe

**The Art. 185 Initiative Metallurgy Europe is running from 2014 to 2020, the call 2018 is expected to be open in Dec 2018 with an exp. (1<sup>st</sup> stage) deadline in April/May 2019.**

**The actual call 2017 has set its research focus amongst others on :**

- **New production processes for metallic/metallurgical applications**
- **Economic and social value**

**Timeline** --

**Source** [http://metallurgy-europe.eu/wp-content/uploads/2018/01/Metallurgy-Europe\\_TEXT\\_HF-Call-02\\_18\\_Dec\\_2017.pdf](http://metallurgy-europe.eu/wp-content/uploads/2018/01/Metallurgy-Europe_TEXT_HF-Call-02_18_Dec_2017.pdf)

### RECHERCHIERT WURDEN U.A. FOLGENDE ARBEITSPROGRAMME:

#### HORIZON 2020

- Leadership in Enabling Technologies (LEIT) - Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing
- LEIT – Information and Communication Technologies
- SC5 – Climate action, environment, resource efficiency and raw materials
- Societal Challenge (SC) 6 – Inclusive, Innovative and Reflective Societies

(Overview of Work Programmes 2018-20:

[http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference\\_docs.html#h2020-work-programmes-2018-20](http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html#h2020-work-programmes-2018-20) )

#### Art. 185 Initiatives

- Metallurgy Europe <http://metallurgy-europe.eu/wp-content/uploads/2017/12/Metallurgy-Europe-Call2.pdf>

ERA Nets via the ERA Learn website: <https://www.era-learn.eu/>