

H2020 Programme 2018-2020 For a better innovation support to SMEs

Innosup-01-2018-2020 Cluster facilitated projects for new industrial value chains

Background Note

Version 1.2 4 December 2019

History of changes

Version	Date	Change
1.1	09.07.2018	 Concepts in section 1"context and concepts" clarified; in section 2.1 "large scale demonstrators", information added on the first generation of INNOSUP-1 projects; in section 3.4 "monitoring and evaluation" indicators further explained.
1.2	04.12.2019	 In section 2.1 "large scale demonstrators", information updated on the first generations of INNOSUP-1 projects; section 3 "key considerations for preparation of applications" further detailed; final annexes updated

Background note to Call topic "INNOSUP-1-2018-2020" under Horizon 2020

Guidance for applicants on the systemic approach and strategic focus to be envisaged for

"Cluster facilitated projects for new industrial value chains"

This document provides background information to *potential applicants* for innovation actions under the call topic of "Cluster facilitated projects for new industrial value chains", as announced in the Horizon 2020 Work Programme 2018-2020 for "Innovation in SMEs". It explains some of the key concepts and what is understood to be the main elements of a systemic approach and strategic focus.

1. Context and concepts

Innovation activities tend to be concentrated in individual companies and certain regions that offer the right competences, skills and favourable conditions. At the same time, innovation and excellence are rarely achieved in isolation, as competences are spread across different sectors, value chains and geographical borders. These characteristics call for collaboration between, and integration of, different innovation actors across different sectors and regions. This includes SMEs and large enterprises as well as supportive organisations such as universities, research and development institutions, other knowledge and skills providers, financial actors, etc. While large enterprises mostly have the resources to organise and manage open innovation processes, SMEs often need help to effectively link with, and integrate into, new industrial value chains.

An *industrial value chain* can be defined as the stages of value creation by enterprises and other organisations as part of the process of designing and delivering goods and services for their users. Traditionally, the stages of the "value chain" were understood foremost as a linear process of a firm's internal primary activities ranging from inbound logistics, manufacturing operations, outbound logistics, marketing and sales, and after-sale service, complemented by horizontal support activities such as finance, planning, human resource development, technology development and procurement.¹ This view is going beyond the supply chain view, which is focussing on the operational management and the interconnecting functions for delivering a product satisfactory. Nowadays, enterprises increasingly outsource stages or parts of the value chain and acquire inputs for strategic positions within global value chains, which comprises all activities that add value to the consumer.

Industrial value chains are therefore increasingly being reconfigured as a result of cross-border and cross-sectoral collaboration, innovation and entrepreneurship. As innovation is likely to occur at the borderlines between different industries, facilitation and acceleration of new combinations along and across value chains represent a source for potential innovation and growth for the enterprises involved. This does not always require radical innovation as *value chain innovation* can be equally effective, when an innovation is brought from one sector into another. So, the specific innovation must not always be new to the world, but can come from the adaptation and testing of its application in a new context that still has a disruptive effect.

¹ Michael E. Porter (1985) Competitive Advantage: Creating and Sustaining Superior Performance.

Figure 1 offers an illustration of this process. It shows how an advanced engineering solution developed in one value chain or sector can become an adapted production process used in another value chain or sector, thereby creating a new industrial value chain. Such reconfigurations can, however, take place at any stage and be driven by different forms of innovation input.

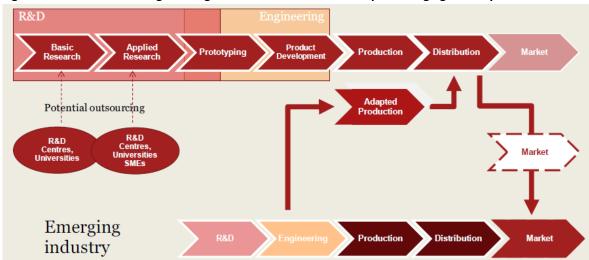


Figure 1 - Value chains being reconfigured from traditional industry to emerging industry

Source: European Cluster Observatory (2012) Emerging industries: report on the methodology for their classification and on the most active, significant and relevant new emerging industrial sectors. ²

These interactions and linkages between value chains and industries may lead to the development of emerging industries. *Emerging industries* can be understood as "the establishment of an entirely new industrial value chain, or the radical reconfiguration of an existing one, driven by a disruptive idea (or convergence of ideas), leading to turning these ideas/opportunities into new products/services with higher added value".³ Therefore, emerging industries can but do not always have to be completely "new" industrial sectors. They are new combinations of narrowly defined activities that can also comprise existing industrial sectors that are evolving towards emerging industries in response to new technologies, market demands, and value chain configurations.⁴

https://ec.europa.eu/growth/industry/policy/cluster/

² Available at https://ec.europa.eu/growth/industry/policy/cluster/

³ See the policy roadmap of the European Forum for Clusters in Emerging Industries (EFCEI), available at http://ec.europa.eu/DocsRoom/documents/5448, that uses the definition developed by Heffernan & Phaal (2009).

⁴ The European Cluster Observatory's "Emerging Industries" report identified the ten emerging industries, namely Advanced Packaging, Biopharmaceuticals, Blue Growth, Creative Industries, Digital-based industries, Environmental industries, Experience industries, Logistical Services, Medical Devices, and Mobility Technologies. The analysis was based, amongst others, on cross-sectoral financial investments and mergers and acquisitions (M&A) as early indicators for the development of emerging industries. An updated cluster mapping analysis, the "European Cluster Panorama" report and trends analysis for emerging industries, the "European Cluster Trend" report as well as corresponding "Specific Trends" reports have also been made available by the Observatory and are accessible via:

As emerging industries are often characterised by high growth rates and further market potential, they hold the key to future competitiveness and prosperity. To foster their development, the innovation potential of SMEs needs to be better exploited. SMEs need to be supported in generating, taking up and better capitalising on all forms of knowledge, creativity, craftsmanship and innovation and to be assisted in bringing their cross-cutting technologies, service innovation and eco-innovative solutions into new industrial value chains. Following a systemic approach and a strategic focus, and making a better use of clusters to reach out to groups of SMEs are seen as crucial to achieve this.

Clusters offer a favourable eco-system, which encourages both competition and cooperation among firms with different industrial backgrounds, technological and business expertise⁶. Evidence shows that companies in clusters are more innovative, conduct more market research and register more international trademarks and patents than businesses operating outside clusters.⁷ This crucial role that clusters play for regional economic performance is further highlighted by more recent findings.⁸

These findings not only confirm that industries belonging to a strong cluster register higher growth in employment, wages, number of establishments, and patenting, but they importantly also show the positive spill-overs that industries in strong clusters have across complementary economic activities. The presence of a strong cluster in a region is found to also enhance growth opportunities in other related industries and to give rise to the emergence of new regional industries.

Clusters⁹ should therefore not be viewed in a narrow sectoral sense but as fertile regional business environments (ecosystems) for groups of closely related and complementary sectors and industries, whose potential should be better exploited.

2. Systemic approach and strategic focus

In order to strengthen Europe's industrial leadership and stimulate the creation of new industrial value chains that may give rise to emerging industries, a systemic approach and a strategic focus need to be considered for the implementation of innovation actions. The following five points are seen as core elements to achieve impact at operational level and are described in more detail further below:

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⁵ The Smart Guide to Service Innovation – How to better capitalise on service innovation for regional structural change and industrial modernisation, pp.12-13, available at http://ec.europa.eu/DocsRoom/documents/3955

⁶ European Cluster Observatory (2012) Emerging industries: report on the methodology for their classification and on the most active, significant and relevant new emerging industrial sectors, p. 9.

⁷ See the "Smart Guide to Cluster Policy" available at https://ec.europa.eu/growth/content/smart-guide-cluster-policy-published-0_en and the European Commission Staff Working Document SEC (2008) 2637, "The concept of clusters and cluster policies and their role for competitiveness and innovation: main statistical results and lessons learned". Available at: http://bookshop.europa.eu/en/the-concept-of-clusters-and-cluster-policies-and-their-role-for-competitiveness-and-innovation-pbNBNA23591/

⁸ Delgado, Porter & Stern (2012) Clusters, Convergence, and Economic Performance.

⁹ The important role of clusters as a powerful economic development tool been recognised as part of the <u>renewed EU Industrial Policy Strategy</u> to support industrial innovation on the ground, the 2017 Smart Specialisation Communication on <u>'Strengthening Innovation in Europe's Regions'</u> and the 2016 Communication on the <u>'Start-up and Scale-up Initiative</u>'. More on https://ec.europa.eu/growth/industry/policy/cluster/

- **1.** the adoption of a so-called "large-scale demonstrator" approach;
- **2.** the involvement of cluster organisations and/or other SME intermediaries as facilitators:
- **3.** a strategic selection of partners and sectors from which SMEs are to be targeted;
- **4.** a close link with regional policy priorities and other activities and investments; and
- **5.** a combination of different support instruments and tools.

2.1. Large-scale demonstrators

The concept of "large-scale demonstrators" is a key element of the European Commission's reindustrialisation strategy. It was first recommended by the Expert Panel on Service Innovation in the EU as an approach to move from small-scale prototypes or pilot projects to large-scale near-market projects in which a range of innovative solutions are tested under real-life conditions.

As further explained in the "Smart Guide to Service Innovation" ¹⁰, a large-scale demonstrator brings together all relevant players (public and private) such as administrations, industry, knowledge providers, research institutions, regulators and users/citizens, to work together in order to address specific problems, needs, societal challenges or a common ambition in a joint, strategic manner that combines different tools and instruments in support of entrepreneurship and cross-sectoral collaboration. The approach is an outcome- and user-driven process that starts with the societal or consumer demand – the specific problem or challenge – and then works "backwards" to potential technical or service innovation solutions and the corresponding support required.

In the context of stimulating emerging industries, such an approach advocates moving away from testing the feasibility of "individual innovations" through pilot actions or market replication projects, which may or may not work in a different environment, towards developing and "testing a range of solutions", notably by groups of SMEs, under real-life conditions. "Large-scale" does not necessarily refer to the amount of financial support provided, but rather to the scope of impact on the system or industry. Implementing such an approach requires a broad-based way of thinking to overcome fragmentation and avoid duplication of funding through a combined use of resources, reallocation of existing funds and mobilisation of new ones through cross-border and cross-sectoral partnership.¹¹

Large-scale demonstrators can provide SMEs with the context and incentives to develop, test and fine-tune new approaches to addressing specific problems and challenges. For instance, the idea behind a large-scale demonstrator can be to bring an innovation successfully from one sector into another that offers new solutions or opportunities, thereby building a new industrial value chain. This requires a strategic

¹⁰ European Commission, "The Smart Guide to Service Innovation". Available at http://ec.europa.eu/DocsRoom/documents/3955

¹¹ The Unit for "SMEs: Clusters and Emerging Industries" of the European Commission's Enterprise and Industry Directorate-General hosted a workshop on 12-13 February 2014 on" Stimulating Emerging Industries through a Large-scale Demonstrator Approach" in Brussels. The programme, summary and presentations of the workshop can be found at http://ec.europa.eu/DocsRoom/documents/5367

vision that clearly identifies such opportunities, key supporting actors and groups of SMEs (from which sectors) that should be targeted and supported to achieve the set objectives.

The innovation actions for "Cluster facilitated projects for new industrial value chains" are envisaged as a new generation of large-scale demonstrators that is considerably different to previous kinds of large-scale demonstrator approaches that have been tested under the Competitiveness and Innovation Framework Programme (CIP). The previous generations, as described further below, concentrated primarily on the promotion of regional structural change and industrial modernisation at the policy level. They were designed more as coordination and support actions – contrary to the "cluster facilitated projects for new industrial value chains" which are "innovation actions¹²".

The challenge-driven approach of the previous generation of demonstrators and the need for a common strategic vision of demonstrator participants remain key parts, but they must now be focused on the development of new industrial value chains. More significantly, this new generation of large-scale demonstrators especially aims to unlock the innovation potential of "groups of SMEs" and focuses more directly on fostering innovation in SMEs on a wider scale. This is reflected in the specific call topic requirement that "at least 75% of the total proposed budget shall be allocated to support innovation in SMEs directly". ¹³

The input for the value chain innovation that should drive the impact towards the development of emerging industries can come from either cross-sectoral collaboration and innovation activities within a region, cross-regional collaboration and innovation within a sector or from a combination of both, of which the latter is the most difficult but potentially the most rewarding. At the core, there should however be an approach that outlines the testing of innovative solutions for a particular challenge with many SMEs and the EU added value of such an approach must be clear. The innovation support can be provided to individual enterprises, although a partnering amongst SMEs or between SMEs and innovation providers across regional boundaries may offer higher scope for achieving the EU added value and higher impact.

Creating new collaboration and value chains linkages and innovative ideas is important but not sufficient in achieving such impactful value chain innovation towards new industrial value chains¹⁴. This is only achieved when the new collaboration and/or innovation activities actually succeed in having delivered ideas that been validated, supported and been tested in a real-life environment.

http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf%20

¹² Please see the description and specific provisions for "Innovation actions" as described in Section D of the General Annexes of the Work Programme 2018-2020 as well as further explanations in the section "Use and combination of business support tools and instruments" of the current background note:

¹³ This means that the innovation support must go either directly to SMEs participating in the consortium (i.e. that are consortium partners of the possible grant agreement) or to SMEs benefitting as third party enterprises (i.e. that are not consortium partners of the grant agreement but receive business support, for instance from the consortium partners or from service providers under a voucher scheme).

¹⁴ Selected reference documents include Smart Guide on entrepreneurship and Smart Guide to European Strategic Cluster partnerships available. Please see annex at the end of this document for the links.

Depending on the level of maturity of the niche, sector or value chain in question, progress may first start with a proof of concept or at product demonstration, but should primarily aim delivering innovative goods or service applications or adaptations or processes that have entered a new sector. Therefore, the call does not limit the Technological Readiness Levels (TRLs) of innovative ideas/projects to be supported but generally aim the highest relevant levels that is closest to the market.¹⁵

The large-scale demonstrator refers here though not to such individual pilots or projects but to the overall approach to deliver solutions and new industrial value chains through cross-border and cross-sectoral collaboration and open outreach and/or calls with a particular challenge.

Previous generations of large-scale demonstrators and related measures

The first generation, launched under the *European Mobile and Mobility Industries Alliance* (EMMIA), aimed at demonstrating the feasibility of exploiting innovative mobile services to foster sustainable tourism in rural areas. This included the mapping and implementation of services to be provided through mobile applications, access to these and signposting activities to raise the awareness of potential users about further entrepreneurial offers. A second and third group of EMMIA large-scale demonstrators focused on the use of earth monitoring (GMES) and satellite navigation (GNSS) to promote both Galileo/EGNOS and Copernicus (the European Earth Observation programme that combines radar, multi-frequency optical and infrared reflection data for land, water and air monitoring) and enabled applications and services in fields such as geological mapping, more ecological and environmentally friendly solutions in agriculture or addressing traffic congestion.

The second generation of large-scale demonstrators launched under the European Creative Industries Alliances (ECIA) - the *European Creative Districts*¹⁶ - aimed at demonstrating the transformative power of creative industries to help a traditional industrial region and its industries transform themselves and enter new value chains.¹⁷

The third generation of demonstrator projects on "Clusters and Entrepreneurship in Support of Emerging Industries" supported six regions to better capitalise on all forms of creativity, new technologies and the transformative power of innovation to shape new value chains through cross-sectoral cooperation facilitated by clusters and business networks. The 124 proposals received in response to the call show the high interest in emerging industries, with applications having placed a particular emphasis on eco-industries (81 references) followed by creative industries (29), personalised medicine/health (24), mobility (22) and mobile service industries (21).

In addition, the European Service Innovation Centre (ESIC) provided advisory support services to six *model demonstrator regions* through assessment reports, stress tests and peer review meetings. Furthermore, in the context of the European Cluster Observatory, six additional model demonstrator regions have received customised information and advisory support from the Observatory¹⁸. The aim is was demonstrate

¹⁵ For more information on TRLs, see annex G of the Horizon2020 Work Programme.

¹⁶ http://www.eciaplatform.eu/project/creative-districts/

¹⁷ Results and outputs of the two European Creative Districts can be found at the following pages: Wallonia European Creative District,

http://www.awt.be/web/wor/index.aspx?page=wor,fr,wec,000,000 CREATE European Creative District, http://fashionvalley-industry.com/project-create

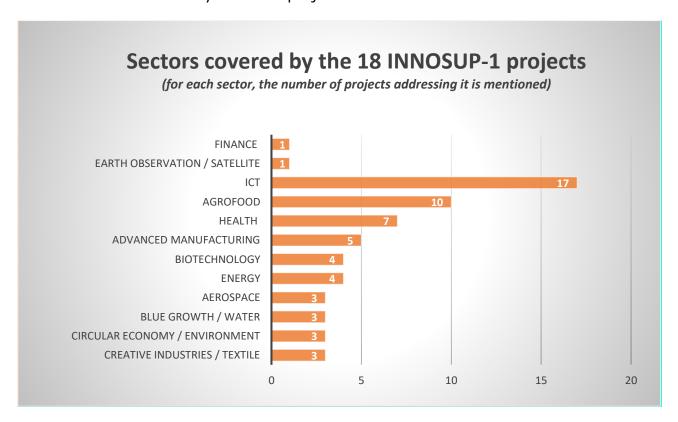
¹⁸ http://ec.europa.eu/growth/smes/cluster/observatory/cluster-policy/index en.htm

new or better ways of designing and implementing modern cluster policies that take maximum advantage of the transformative power of innovation towards shaping new industrial value chains, sectors and emerging industries.

First generations of INNOSUP-1 projects

So far, eighteen (18) INNOSUP-1 cluster projects for new industrial value chains have been launched following four annual calls since 2015.¹⁹

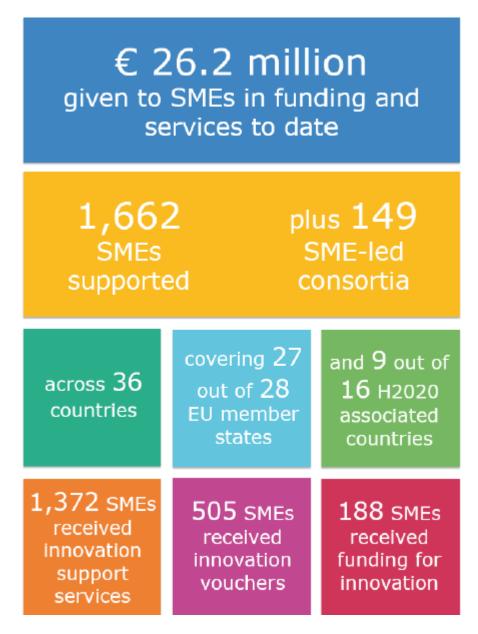
The **sectors** addressed by those 18 projects can be seen below:



The impact report²⁰ of the first 13 projects until May 2019 prepared by EASME revealed that the projects already dedicated EUR 26.2 million to support innovation in more than 1700 SMEs from 36 countries, while already reaching out to 3,232 SMEs. 6,492 SMEs were registered as members of clusters in the INNOSUP-1 consortia. 139 partners make up these consortia, located in 20 countries. 53 INNOSUP-1 consortium members are cluster organisations. Overall, the initiatives are on track to support at least 2,000 SMEs by 2020.

¹⁹ Calls are published on Funding & tender opportunities (the Single Electronic Data Interchange Area), which is the entry point for participants and experts in funding programmes and tenders managed by the European Commission and other EU bodies. https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home

The last call is available here https://op.europa.eu/en/publication-detail/-/publication/f3d69a67-9ece-11e9-9d01-01aa75ed71a1/language-en



Since 2017, yearly coordination meetings with all INNOSUP-1 coordinators have been organised²¹. Their main recommendations are:

- Covering all Horizon 2020 countries in achieving a wide outreach to SMEs;
- A 36-month duration as it takes efforts and time to engage SMEs through faceto-face meetings and through cluster organisations;
- Two calls for expressions of interests or a global call with or without cut-off dates (lump sums vouchers of up to EUR 60,000);
- Applying a needs-based "funnel" support approach (i.e. several types & steps, e.g. by undertaking matchmaking first and only then providing financial support based on actual needs, promising ideas or achievement/progress of SMEs);

The summary of the discussions of the <u>European Cluster Partnerships event</u> bringing together INNOSUP -1 projects funded under the Horizon 2020 programme and European Cluster Partnerships supported under the COSME https://ec.europa.eu/growth/content/busy-partnering-event-50-european-cluster-partnerships-paves-way-future-joint-cluster-en
The after-movie of the partnering event can be watched here. https://youtu.be/xcQxn-7lkWc

- Using investors as evaluators, investment-readiness support (e.g. through bootcamps, 1-hour customized training with mentors and a toolbox) & joint investor pitching events with other INNOSUP-1 projects was proposed; and
- Designing the approach with the consumer in mind instead of the technology.

Majority of partners in projects' consortiums are cluster organisations, supported by research and technology centers and other scaling up stakeholders and even regional public authorities.

Most projects reach out to SMEs across all Horizon 2020 countries. Some projects also reach out to large enterprises (Impact Connected Car, IoT4Industry) and even hospitals (Innolabs), whose role is to provide guidance to SMEs and pose challenges addressed by SMEs.

More details on the 18 INNOSUP-1 projects implemented so far are available on the projects' websites²².

Selected examples include as follows:

In terms of tools, INNOSUP-1 projects usually provide innovation vouchers, lump sums or prizes to channel innovation support to SMEs, while project partners deliver the innovation support services to SMEs. Many of the projects launched calls for the expression of interests to reach out to SMEs. Other tools used included the organisation of idea competitions and matchmaking activities, hackathons (Innolabs, Cross4Health), innovation clubs and virtual rools (Neptune); peer-to-peer evaluation by entrepreneurs (Katana and Neptune); the use of crowfunding to leverage more funds (Katana); uptake of circular economy solutions by SMEs (C-Voucher); boot camps (impact Connected Car); comprehensive catalogues of all SMEs supported available online (Permides, Acttivate, Neptune), raising awareness of the results of the project as a side event at a high visibility large event (Acttivate, Permides, Katana, SuperBIO); practical examples of the projects outcomes (all projects), allocating for each supported SME dedicated designers-in-residence and business mentors with public and private capital expertise (C-Voucher); addressing more specific gaps that need innovative solutions and finding SMEs which can solve the problems (Inclusilver); organising online training courses, webinars and Sandpit Workshops for (VIDA); virtual matchmaking platforms (Permides, Neptune); collaboration agreements with demo sites (DIVA).

Many projects place a strong emphasis on making strategic use of the support of social media for a wide reach out to SMEs and several projects provided extensive reporting on the examples (Innolabs, Permides, Katana, Neptune, Inclusilver, Impact Connected Car).

Lessons learnt so far:

✓ Delivering on reaching out to SMES

- ✓ Highest impact when majority of project partners are cluster organisations
- ✓ Serving the needs of SMEs with customized support for specific challenges
- ✓ Impact lies in the combination of support tools
- ✓ More scope for scaling up linked to financing and internationalization

https://acttivate.eu/, https://katanaproject.eu/, http://www.neptune-project.eu/, http://www.h2020-superbio.eu/, http://permides.eu/, http://www.innolabs.io/, https://www.inclusilver.eu/, https://www.impact-accelerator.com/connected-car/, http://www.cross4health.eu/, https://www.iot4industry.eu/, https://www.projectdiva.eu/, https://c-voucher.com/, https://vidaproject.eu/, https://parsec-accelerator.eu/, https://s3food.eu/, https://www.smartx-europe.eu/, https://blockis.eu/, https://digibcube.eu/

2.2. The role of cluster organisations and SME intermediaries

Mastering the complexity of value chain innovation towards the development of new industrial value chains and emerging industries is an important but difficult task for any enterprise, but especially for SMEs with limited resources. To unlock the innovation and growth potential they offer, support should therefore be foreseen to facilitate cross-border and cross-sectoral collaboration as well as support the innovation activities that result from them.

The recommended large scale-demonstrator approach also calls for a staged experimentation process and the testing of a range of innovative solutions with groups of SMEs in a near-market environment and under real-life conditions. This implies *not* only involving and supporting individual firms in isolation, but also reaching out to and supporting groups of related SMEs to better capitalise upon their innovative capacity.

So-called cluster organisations or other SME intermediaries can play an important role in this process as they manage their clusters' collaboration activities and provide customised business support services to SMEs. They are therefore well positioned to act as facilitators and bridge-builders, which can reach out to and connect groups of SMEs and other innovation actors from different sectors, fields of competence and geographical regions²³ - both within their own cluster and with actors from other clusters. Their role should be that of integrators, catalysts and multipliers of cross-sectoral and cross-border collaboration and innovation. They can help create strategic partnerships at the level of policy-makers and intermediaries, which may then lay the foundations for further efforts to encourage cross-regional collaboration amongst SMEs.

For this reason, cluster organisations or other SME intermediaries are well placed to set up collaboration and networking activities for SMEs by creating a favourable "open space" for cross-sectoral fertilisation and value chain innovation to take place. Such open spaces can be understood as environments (though not in terms of infrastructure), a series of events or virtual "brokerage platforms", where SMEs and other supporting innovation actors can meet to search for, and jointly explore new, cross-sectoral business solutions in a facilitated and structured process. The aim should be to help value chain innovation to take place and to foster the development of new industrial value chains.

Besides their important role in facilitating inter-firm linkages and collaboration, cluster organisations or other SME intermediaries may also coordinate and facilitate the validation of ideas for joint innovation projects, e.g. through competitions, as well as the channelling of entrepreneurial and innovation support measures (such as mentoring, coaching, innovation and technical assistance vouchers, etc.) to the innovation actors of validated innovation projects to further support their development, integration and large-scale demonstration in a strategic manner.²⁴

²³ European Forum for Clusters in Emerging Industries (EFCEI): Extension of the European Cluster Observatory: Promoting better policies to develop world class clusters in Europe. Policy roadmap. Actions for new linkages needed. A policy roadmap for stimulating emerging industries is available at http://ec.europa.eu/DocsRoom/documents/5448

²⁴ Applicants may also take further inspiration from the discussion report of the European Cluster Observatory "Clusters and Entrepreneurship in Emerging Industries", which outlines how cluster organizations can use vouchers to support entrepreneurship in emerging

Clusters are a major part of the European industrial landscape. They play a crucial role:

- in boosting collaboration and connecting enterprises especially SMEs along the triple helix;
- as change agents in the digital and sustainable transformation by supporting innovation take-up, internationalisation and the scaling-up of SMEs; and
- in building bridges across Europe's ecosystems by connecting the right partners, such as through European Strategic Cluster Partnerships.

The European added value materialises in exploring synergies and business opportunities through getting cluster organisations to work together, set up transnational partnerships to better help SMEs access global value chains.

The European Cluster Observatory has identified over 3043 strong regional clusters in Europe²⁵. Over 1000 of them have registered and profiled their cluster organisation on the European Cluster Collaboration Platform to engage in strategic partnering. These cluster organisations act as multipliers by reaching out to over 100.000 SMEs, some 8.000 large firms and 11.000 universities/research organisations.

Clusters matter because they account for 54 million jobs, they are represented in all parts of Europe and have shown resilience during economic crises, they nurture growth and jobs e.g. 3% higher wages and the 67 700 young, fast growing enterprises in clusters employ more staff (35 compared to 24 outside).

As a result, clusters can act growth accelerators for SMEs. They can help them innovate, facilitating access to and strategic positioning in new and global value chains and developing business collaboration with impact as part of long-term strategic partnerships.

The importance of clusters as drivers of favourable business environments, innovation and entrepreneurial ecosystems has been increasingly recognised in EU policies in recent years, as evidence increasingly shows that structural policies that level the playing field are not sufficient for scale-ups to emerge²⁶. The EU Entrepreneurship 2020 Action Plan emphasises the importance of clusters for their supportive role for the establishment and growth of new companies. The public consultation that led to the adoption of the EU Start-up and Scale-up Initiative concluded that start-ups and scale-ups would benefit from more coordinated support with respect to: a critical mass of effectively interconnected EU-wide clusters and ecosystems; better use of accelerators and incubators; and an EU-wide platform to connect start-ups with potential partners (alongside existing public and private platforms).

industries. The discussion paper is available at the EU Cluster Portal at: https://ec.europa.eu/growth/industry/policy/cluster/.

For mapping clusters and cluster organisations, please see https://www.clustercollaboration.eu/cluster-mapping and https://www.clustercollaboration.eu/news/extensive-update-cluster-mapping-tool Taken together with https://www.clustercollaboration.eu/news/extensive-update-cluster-mapping-tool Taken together provides a systemic picture of clusters, industrial patterns and regional ecosystems across Europe.

²⁶ The European Commission's renewed EU Industrial Policy Strategy published in 2017, the Smart Specialisation Communication on "**Strengthening Innovation in Europe's Regions**" from 2017 and the 2016 Start-up and Scale-up Communication have all stressed the role of making better use of clusters as a strategic tool of industrial policy, for strengthening interregional collaboration and supporting the competitiveness of SMEs in strategic EU and global value chains.

2.3. Identifying promising industry areas and partners

A strategic selection of partners and sectors from which SMEs are to be targeted is an important starting point for the mobilisation of actors to facilitate cross-sectoral and cross-border collaboration and innovation and for the development of a joint strategic focus towards new industrial value chains. The following key aspects may be considered as part of the process:

- 1. economic complementarities and critical mass of enterprises;
- 2. presence and interest of intermediaries to facilitate cross-border collaboration of SMEs; and
- 3. presence of similar or related smart specialisation strategies or policy priorities that may also lead to complementary support and funding for a favourable environment for the specific new industrial value chains.

Concerning the choice of new industrial value chains and related sectors, applicants may seek inspiration from the "European Cluster Panorama" report and the corresponding "Specific reports" on the 10 emerging industries of the European Cluster Observatory. However, such identified emerging industries or growth trends should not be followed without reflection. Instead of the common policy pitfall of merely prioritising new technologies or industrial growth areas where there might be little pre-existing strength within a region, applicants should seek to unlock complementarities across existing and related economic activities. ²⁸

In the search for regional strongholds with similar or related competence profiles, the European Cluster Observatory's previous analysis and cluster mapping of concentrations of economic activities in 38 sectors across Europe's regions on the basis of employment statistics²⁹ may be useful sources.

Concerning the identification of the presence and interest of cluster organisations and other SME intermediaries as partners to facilitate cross-border collaboration of SMEs, the European Cluster Collaboration Platform may be a useful tool as it aims to facilitate transnational cluster cooperation.³⁰ Further synergies may be created by building upon, or setting up so-called "European Strategic Cluster Partnerships"³¹ amongst cluster organisations that are being supported under the Cluster Internationalisation Programme under COSME as well those being mobilised as part of the Thematic Smart Specialisation Platform on Industrial Modernisation³² for boosting smart specialisation investments³³.

²⁷ Analysis and reporting on ten emerging industries is accessible via https://ec.europa.eu/growth/industry/policy/cluster/ and http://ec.europa.eu/DocsRoom/documents/10043

²⁸ Delgado, Porter & Stern (2012) Clusters, Convergence, and Economic Performance

²⁹ Available at: https://www.clustercollaboration.eu/news/extensive-update-cluster-mapping-tool

³⁰ http://www.clustercollaboration.eu

^{31 &}lt;a href="http://www.clustercollaboration.eu/eu-cluster-partnerships">http://www.clustercollaboration.eu/eu-cluster-partnerships

³² http://ec.europa.eu/growth/industry/innovation/smart-specialisation/index en.htm

³³ http://www.clustercollaboration.eu/open-calls/towards-european-strategic-cluster-partnerships-smart-specialisation

Concerning the identification of regions that have similar or related smart specialisation strategies and political priorities, the Eye@RIS3 tool developed by the Smart Specialisation Platform³⁴ may be used. As a basis for the building of successful partnerships, synergies with the related managing authorities of Structural Funds could therefore be explored.

Applicants should outline in their proposal and explain their choice either for the potential new industrial value chain that they have identified or, alternatively, the particular challenge that is envisaged to be addressed through a specific cross-sectoral focus that is potentially expected to solve the challenge.

2.4. Link to regional smart specialisation strategies and policy priorities

The European Commission Communication "For a European Industrial Renaissance" clearly stresses the role of "cluster facilitated demonstration projects for value chain innovation" to support the implementation of smart specialisation strategies. The text of the call topic also explicitly foresees a close link with *smart specialisation strategies* that regions in the EU were asked to develop. The strategic implementation of these strategies is the basis for European Structural and Investment Fund (ESIF) interventions in research and innovation. As the approach of defining the smart specialisation strategies involved a process of developing a vision, identifying competitive advantage and setting strategic priorities and smart policies to maximise the knowledge-based development potential of a region, these strategies can be used as a starting point to build synergies, linkages and complementarities at EU level.³⁵

Hausmann, Hildago and others³⁶ show that a favourable, highly clustered allocation of an industry's producers and service providers and corresponding trade flows in a particular region is most often a sign of its eco-system's diverse mix of advanced capabilities and specialisations. Key to prosperity is therefore not a narrow sectoral specialisation that is only based on a comparative cost advantage but a diversified specialisation that builds upon the diversity of know-how and cross-sectoral spill-overs.

The strategic use of innovation to foster structural change and the creation of complementarities towards the development of new industrial value chains also implies consideration of the wider regional context and framework conditions where the actions are supposed to take place. The related sectors and partners chosen should ideally be linked to the priority framework and smart specialisation profile set by public authorities of the regions concerned as these will trigger important complementary support activities and ESIF investments, such as for specific infrastructure measures (e.g. in clean rooms, etc.) that cannot be funded under the innovation action under Horizon 2020.

Therefore, complementary strategic interregional partnering of Managing Authorities of ESIF, e.g. as part of interregional partnerships under the thematic Smart Specialisation Platforms of Industry, Agri-food and Energy³⁷ is judged as highly beneficial for the potential impact of bottom-up inter-regional cluster facilitated projects as these may

³⁴ http://s3platform.jrc.ec.europa.eu/eye-ris3

³⁵ http://s3platform.jrc.ec.europa.eu/

³⁶ Hausmann, Hildago et al (2011) The Atlas of Economic Complexity: Mapping Paths to Prosperity

^{37 &}lt;a href="http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms">http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms

offer further funding opportunities for possible collaboration project ideas identified through the INNOSUP-1 projects.

For these reasons, applicants are asked to already explain in the concept note in the first stage of the submission procedure how they intend to build the linkages to regional smart specialisation strategies and the European Structural Investment Funds (ESIF). In that respect, applicants might also look at the specific European Commission Guide on enabling synergies between ESIF, Horizon 2020 and other research, innovation and competitiveness-related Union programmes³⁸.

2.5. Use and combination of business support tools and instruments

To achieve large-scale impact, it is necessary to leverage existing tools, instruments and funds. The call topic therefore also asks applicants to support innovation activities and/or channel a mix of different entrepreneurial and innovation support measures directly to the innovation actors of the innovation projects that they will validate, in order to further support the development, integration and large-scale demonstration of the innovation activities. Such business support measures, tools and mechanisms should not be implemented in isolation, but form an integral part of the systemic approach.

As the call topic is an innovation action, it should "primarily [consist of] activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication."³⁹

Some examples of business support tools and services to facilitate new cross-sectoral and cross-border linkages include: innovation and technical assistance voucher schemes, knowledge transfer and technological integration support, Intellectual Property (IP) and innovation management support, business incubation and accelerator support (including internationalisation), mentoring and coaching of entrepreneurs, awareness raising, information and dissemination, training and mobility activities, assisting SMEs in connecting with research and innovation actors, investment readiness training and access to finance, brokerage and matchmaking support, innovation and creativity competitions.

These business support tools and mechanisms should be used and combined strategically to achieve impact at operational level. They should be selected according to the applicants' experience with these tools and their suitability for the specific context. In the development of innovation support services applicants may further consider some key guiding principles, namely: novelty, replicability, usability, scalability, adaptability, clear European added value, and deployment at the level with highest impact.

The use of innovation vouchers exemplifies how to put into practice a systemic approach that encourages cross-sectoral linkages. Innovation vouchers can represent a demand-led, user-friendly, highly flexible, and non-bureaucratic innovation support

³⁸ http://ec.europa.eu/regional_policy/sources/docgener/guides/synergy/synergies_en.pdf

³⁹ For further descriptions of "Innovation actions" please see Horizon 2020 – Work Programme 2018-2020. General Annexes, Annex D

http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf

scheme to finance the costs of accessing external knowledge and expertise (such as research institutes, universities and other knowledge providers like consultants).

The vouchers developed within the framework of the Europe INNOVA REMake and GreenConServe⁴⁰ actions under CIP are good examples of successful implementation of a "green" voucher concept. Applicants may also want to have a look at the results of four concrete actions' work with vouchers used for innovation support that were developed under the European Creative Industries Alliance (ECIA)⁴¹. These vouchers were foremost implemented to facilitate cross-sectoral linkages and spill-overs between creative industries firms and firms from other industries. One of the lessons learned was that the combination of the launch of the innovation voucher scheme with matchmaking, brokerage and networking activities proved very useful. The involvement of both creative service providers and SMEs from other industries allowed, at an early stage, the firms to explore mutual cooperation potential and it ensured that vouchers met the needs of the beneficiary firms and were not randomly allocated.

Applicants may also look at the results of six concrete actions of "Clusters and entrepreneurship in support of emerging industries" which developed and tested technical assistance and innovation vouchers as entrepreneurship and business support schemes 42 as well as at the ongoing INNOSUP-1 projects 43 .

It should be borne in mind that any financial support scheme (including voucher scheme/lump sums) implemented under the Horizon 2020 INNOSUP-1-2018-2020 action must be developed in line with the Financial Regulation and article 210 of the Rules of Application, which foresee that a third party may be financially supported with a maximum of EUR 60,000. The detailed rules of article 210 are also outlined in part K "Actions involving financial support to third parties" of the General Annexes to the Horizon 2020 Work Programme 2018-2012⁴⁴. Part K stipulates that proposals that foresee a financial support to third parties, inter alia, shall clearly detail the objectives and the results to be obtained, and include at least, a fixed and exhaustive list of different types of activities for which a third party may receive financial support, the definition of persons or categories of persons which may receive financial support (i.e. the groups of SMEs), the criteria for awarding financial support, the criteria for calculating the exact amount of the financial support, and the maximum amount to be granted to each third party.

Moreover, part K stipulates that "Projects must publish widely their open calls and adhere to Horizon 2020 standards with respect to transparency, equal treatment, conflict of interest and confidentiality. All calls for third parties must be published on the Horizon 2020 Participants Portal, and on the projects own web site. The calls must remain open for at least two months. If call deadlines are changed this must immediately be published on the call page on the participant's portal and all registered applicants must be informed of the change. The calls must have a clear European

⁴⁰ http://www.greenovate-europe.eu/services/green-innovation-vouchers

^{41 &}lt;a href="http://eciaplatform.eu/publication/thematic-paper-innovation-vouchers-as-tools-for-innovation-policy/">http://eciaplatform.eu/publication/thematic-paper-innovation-vouchers-as-tools-for-innovation-policy/

⁴² For more information on the six projects, please find the project fiches available at: http://www.clustercollaboration.eu/eu-initiatives/clusters-and-emerging-industries

⁴³ For more information on the ongoing INNOSUP-1 projects, please find the project fiches available at: https://www.clustercollaboration.eu/eu-initiative/innosup-calls

http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf

dimension – either by carrying out cross border experimentation or in other ways expanding the impact of local experiments to European scale.

Regarding another important means of providing business support such as the facilitation of new business creation, applicants might find the cases of the model demonstrator regions selected to receive advisory support services from the European Service Innovation Centre interesting. Such cases include examples of the creation of open innovation centres and incubators for information services start-ups, providing them with training programmes, financial and intangible support and a physical environment for open innovation (work spaces, meeting rooms, ICT and marketing facilities and event spaces, access to new testing facilities and high-end analytical equipment). The Smart Guide to Service Innovation⁴⁵ as well as the Smart Guide to Cluster Policy⁴⁶ which explains relevant concepts, the economic relevance of clusters and cluster policies, presents eight Do's and Don'ts of modern cluster policy, and provides many good practice examples on how to make better use of clusters for promoting regional industrial modernisation, supporting the growth of SMEs and encouraging smart specialisation.

Moreover, the European Cluster Observatory presented in October 2014 a report on suitable cluster collaboration and business support tools to facilitate entrepreneurship, cross-sectoral collaboration and growth, which offers further practical guidance to potential applicants.⁴⁷

The INNOSUP-1 proposals should highlight the coherence and complementary of the different types of support activities proposed to SMEs towards the creation of new value chains.

3. Key considerations for the preparation of applications

3.1. Proposal checklist

Check if your proposal clearly highlight the following:

- Composition of the consortium: to what extent are clusters and other business support organisations involved? Is the complementary clear?
- What cross-sectoral value chain(s) is the proposal addressing?
- What emerging industry(ies) is the proposal addressing?
- How are the cross-sectoral and cross border requirements fulfilled?
- What makes of the project a large scale demonstrator?
- How will the sectoral challenges be identified?
- How will the ideas to tackle those challenges be selected?
- What type of support (financial and non financial) will be offered to enable the development of these ideas? To how many SMEs?
- Are synergies with regional innovation policy (smart specialisation) priorities emphasized?

⁴⁵ The Smart Guide to Service Innovation – How to better capitalise on service innovation for regional structural change and industrial modernisation, at http://ec.europa.eu/DocsRoom/documents/3955

⁴⁶ http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=8838

^{47 &}lt;a href="http://ec.europa.eu/growth/smes/cluster/observatory/cluster-mapping-services/services/index">http://ec.europa.eu/growth/smes/cluster/observatory/cluster-mapping-services/services/index en.htm

 How many new, altered or improved products, processes or services should be produced at the end of the project.

3.2. **Duration of projects**

Applicants are free to propose a project duration to fit their foreseen activities, implementation methods and tools. The Commission may consider a project duration of 30-36 months as appropriate on the basis of the experience of similar previous initiatives.

3.3. Overview of budgetary indications provided

The specific call topic in the Horizon 2020 Work Programme 2018-2020 states that the Commission considers that proposals requesting a contribution from the EU of between EUR 2.5 and 5 million would be appropriate. So far considering the 18 INNOSUP-1 projects already funded, none requested less than EUR 3.4 million. Since INNOSUP-1-2018-2020 is an innovation action, a funding rate of maximum 70% has to be applied, except for non-profit legal entities, where a rate of 100% applies. 48

The INNOSUP-1 topic also requires that "at least 75% of the total budget shall be allocated to **support innovation in SMEs directly**".

The following can be included in the calculations to reach the 75%:

- 1. **Direct financial support** (vouchers, grant, prizes): ie transfer of money from INNOSUP-1 projects to SMEs' bank accounts
- 2. **Direct innovation support services** (individual coaching and mentoring services) provided by INNOSUP-1 beneficiaries to SMEs (no transfer of funds)
- 3. **Other non individualised innovation services** (training, matchmaking events, etc)
- 4. Costs for preparation / management of above services
- 5. All costs of SMEs part of the INNOSUP-1 consortium

Out of these 5 categories it is expected that the direct financial support (category 1) and direct innovation support services (category 2) represent a substantial part of the total budget.

Applicants should highlight in their proposal how they intend to fullifil this 75% requirement.

Please note that costs related to the overall management of the INNOSUP-1 project and costs in relation to the dissemination and communication activities cannot be included in the 75%.

As this call follows a two-stage procedure⁴⁹, applicants are only expected in the first stage to submit an estimate of the total cost of the proposed action and of the expected EU contribution, i.e. detailed budget information will only be required for stage two.

⁴⁸ Please see the Horizon 2020 Work Programme 2018-2020. General Annexes, Annex D: http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf

 $^{^{49}}$ Please see the Horizon 2020 Work programme 2018-2020, General Annexes, Conditions for this call: $\frac{\text{http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-ga_en.pdf}$

3.4. Monitoring and evaluation

To facilitate the monitoring and evaluation undertaken by the Executive Agency for Small and Medium-sized Enterprises (EASME)⁵⁰ on behalf of the European Commission services to get an overview of the progress made, successful applicants will be asked to put in place, from the outset, **appropriate mechanisms for the on-going monitoring and evaluation of the project, notably with regards to the support of innovation in SMEs**. This is important in order:

- to enable the project partners to assess project progress with a view to ensuring
 efficient project implementation and the continued relevance of the planned
 activities, i.e. that the project is 'on track', and to continuously optimise the
 development processes; and
- to assess, in an on-going way, the progress the project makes in relation to the objectives defined at the beginning and to benchmark the results in order to provide information that can be mainstreamed into Horizon 2020.

Such monitoring and evaluation is distinct from the on-going and ex-post evaluation processes instigated by the Commission.

The on-going monitoring and evaluation of the project itself may be carried out internally by the project partners or by an external evaluator. Any internal processes should, however, allow for an "outside perspective".

On-going monitoring and evaluation require that qualitative and quantitative indicators be linked to each key point, action and event of the project. The system of indicators will need to take into account the objectives set, the actions put in place and the available sources of information.

Quantitative indicators refer to the collection and comparison of facts and figures. Key performance indicators could include, for example, the number of cross-sectoral innovation projects supported, the total number of SMEs reached out to, the number of SMEs that receive innovation support directly (especially third-party SMEs through vouchers, prizes, grants), the number of SMEs that receive innovation support services (e.g. coaching, mentoring, B2B services etc) from the consortium's partners and additional funding amount leveraged for the supported SMEs (e.g. through crowdfunding, ESIF and other funding). Moreover, it should report on the number of new or significantly improved products (goods and/or services), processes, new marketing methods, or new organisational methods – and on the impact on resource efficiency (e.g. on water, energy or material consumption), and/or turnover and profit as well as number of SMEs that reported an increase in their workforce. The data for these indicators should be collected prior to the provision of innovation support and at the end of the project, allowing for comparison.

Qualitative indicators can also be described as a set of criteria used to assess the changes made by the project activities to the situation (baseline conditions) at the start of the project. These indicators should provide transferable evidence in terms of qualitative information about the effectiveness of the project, such as on the contribution to regional smart specialisation strategies and the leverage effect through

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⁵⁰ http://ec.europa.eu/easme/en/executive-agency-small-and-medium-sized-enterprises-easme

ESIF and private investors. They comprise documented experiences, changes in attitudes, opinions and practices of the participating actors and other stakeholders. Qualitative indicators also include changes to structures, processes and systems within or outside the participating organisations as a result of the project's activities. The selected indicators should be subject to regular evaluation to ensure their continuing relevance.

In line with the expected impact statement of the text of the call topic, successful applicants shall foresee the provision of an overview of the results and impacts achieved by the project through a set of indicators that, in particular, allows for the monitoring and evaluation of the effectiveness of innovation support to the participating SMEs, **including third party SMEs**. EASME will make available a monitoring table to follow the fulfilment of the 75% requirement, which projects will be requested to complete every 9 months from the start of the project.

Indicators should also be developed to monitor and assess the sustainability of the effects brought about by the project over a longer, medium-term timeframe. A periodic review of the methods used for management, internal communication and steering of the project will also allow for an evaluation of the quality of its organisation and the possibility to introduce improvements.

3.5. Further information

More information on cluster policies, programmes and activities at EU level can be found at the **EU Cluster Portal** at http://ec.europa.eu/growth/industry/policy/cluster_en.

Additional clarifications on the INNOSUP-1 action can be found in the document "Supplementary information for applicants" which summarises information based on previous provided "frequent asked questions", and in the document providing "Guidance for applicants on calls to award financial support to third parties within Horizon 2020 projects" Both are available in the sub-section "Additional Documents" under the "Topic Conditions & Documents" section on the call page on the H2020 participant portal.

Further guidance for an effective implementation of INNOSUP-1 projects will be provided by EASME and GROW in the kick-off meetings of the successful projects. Some lessons learned will also been shared at relevant events, such as the European Cluster Conference.

⁵¹http://ec.europa.eu/research/participants/data/ref/h2020/other/guides for applicants/h202 0-supp-info-innosup-1-18-20 en.pdf

⁵²http://ec.europa.eu/research/participants/data/ref/h2020/other/guides for applicants/h202 0-guide-finsupport-innosup-1-18-20 en.pdf

Annexes

List of the 18 completed and ongoing INNOSUP-1 projects:

- a Blue Growth Accelerator supporting the development of new cross-sectoral and cross-border industrial value-chains mixing Water, Aerospace, ICT and Agriculture technologies (<u>NEPTUNE</u>)
- bringing together SMEs from the biopharmaceutical and IT sector to advance precision medicine through the development of novel digital solutions along the biopharmaceutical value chain (<u>PERMIDES</u>)
- supporting entrepreneurs from agro-food and ICT sectors in bringing their ideas from concept stage to market (<u>KATANA</u>)
- fostering the smart reindustrialization of Europe via new cross-border and cross-sectoral value chains in aerospace, agro-food, health, ICT (<u>ACTTiVAte</u>)
- developing new, innovative, cross-border and cross-sectorial industrial value chains in the bio-based economy (<u>SuperBIO</u>)
- building a 'Connected Car Open Space' where innovation actors validate and accelerate cross-sectoral and cross-border business solutions across automobile, ICT, IoT, advanced manufacturing, and road infrastructure (<IMPACT> Connected Car)
- leveraging cross capacity building between ICT, health, bio and medicine sectors for new emerging industries in personalized health (<u>INNOLABS</u>)
- unlocking the collaborative potential of aerospace and energy SMEs on the biotechnology, ICT and medical devices sectors for the generation of innovative solutions that enhance patient-centred personlised care (<u>Cross4Health</u>)
- supporting collaboration between actors belonging to different sectors in order to create the optimal conditions for generating and validating innovative ideas in the field of personalized nutrition for the Silver Economy (INCLUSILVER)
- developing a new cross-sectoral industrial value chain based on the integration and use of IoT and related components into manufacturing tools, machines and robots, industrial processes, and factory environments, through cross-border collaboration between SMEs and other RDI actors (<u>IoT4Industry</u>)
- generating new cross-sectoral and cross-border value chains with a circular economy approach, by combining industrial value chains with enabling technologies, through design thinking concepts (<u>C-VoUCHER</u>)
- providing support to the emergence and development of new industrial digitech value chains with applications to the agro-food, forestry and environment sectors (DIVA)
- supporting the innovation potential of SMEs working across European food chains interested in improving the use and efficiency of water, food, energy and key enabling technologies (KETs) (VIDA)
- building an open and collaborative cross-border, cross-sectoral innovation ecosystem that fosters the use of this cutting-edge technology (block-chain) in three vital sectors for the European economy: agrifood, logistics and finance. Blockchain Innovation Spaces (Block.IS) https://blockis.eu/
- establishing of new value chains bustling with innovative SMEs that can translate the large public investments in the Copernicus programme (Earth Observationderived information) and numerous sector specific initiatives (related to food, water, energy, climate change, biodiversity, etc.) into applications and services meeting user needs and market demands, for the benefit of European economy and society. PARSEC https://parsec-accelerator.eu/
- unlocking the cross-sectoral collaborative potential of SMEs by combining Artificial Intelligence (AI), Cognitive Computing Digital Technologies (CCDT) with the

Bioimaging-Biosensing-Biobanking (B-CUBE) industries **DIGI-B-CUBE** https://www.digibcube.com/

- facilitating the modernisation and digitalisation of the food processing industry linking Smart Sensor Systems for Food safety, quality control and resource efficiency in the food processing industry (S3FOOD) http://s3food.eu/
- establishing a novel industrial value chain composed of SMEs and start-ups from textiles, designers, (micro)electronics, data processing, IoT, manufacturing providers technology, distributors, funding and end https://www.smartx-europe.eu/









http://katanaproject.eu http://www.neptune-project.eu http://www.h2020-superbio.eu http://permides.eu/

http://acttivate.eu

https://www.innolabs.io







http://www.impact-accelerator.com/connected-car/



https://www.projectdiva.eu/ https://www.iot4industry.eu/





http://s3food.eu/



C-Voucher







https://parsec-accelerator.eu/ https://blockis.eu/



IOT 🍊 INDUSTRY



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INNOSUP-1

18 funded projects

More information on

ECCP https://www.clustercollaboration.eu/eu-initiative/innosup-calls

Horizon 2020 Innosup data hub https://innosup.easme-web.eu/

All the calls published on SEDIA Funding 1 Tender opportunities : https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/innosup-01-2018-2020

Key reference documents:



https://op.europa.eu/en/publication-detail/-/publication/f3d69a67-9ece-11e9-9d01-01aa75ed71a1/language-en

The <u>Smart Guide to Cluster Policy</u> is a tool for policy-makers and practitioners to support industrial modernisation, SME growth and smart specialisation. https://ec.europa.eu/growth/content/smart-guide-cluster-policy-published-0_en

The <u>Smart Guide to entrepreneurship support through clusters</u> provides guidance to cluster policy makers and cluster managers in designing and implementing programmes that accelerate the creation of start-ups, spin-offs and scale-ups in emerging industries and in specific value chains.

https://www.clustercollaboration.eu/sites/default/files/eu initiatives/eocic smart guid e to entrepreneurship.pdf

The Smart Guide for European Strategic Cluster Partnerships provides guidance to European Strategic Cluster Partnerships (ESCPs) on how to develop a successful partnership strategy and on possible actions to achieve joint projects and investments.

https://www.clustercollaboration.eu/news/smart-guide-european-strategic-cluster-partnerships-escp

key reference websites:

https://ec.europa.eu/growth/industry/policy/cluster/

https://www.clustercollaboration.eu/

https://innosup.easme-web.eu/

https://cordis.europa.eu/programme/rcn/665222/en

https://cordis.europa.eu/programme/rcn/704402/en

https://cordis.europa.eu/programme/rcn/701970/en

https://ec.europa.eu/info/funding-

tenders/opportunities/portal/screen/opportunities/topic-details/innosup-01-2018-2020