



# STARTUP<sup>3</sup>

## Policy Brief 01

*November 2021*

# Digital Single Market

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- Digital Single Market overview
- Upcoming Brokerage Events and Conferences
- EU Funding Programmes Mapping

### Keep on track

Info about the Digital Single Market policies and opportunities are available [here](#).



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## Introduction

The EU program for strong recovery has its underpinned by the following guiding principles:

- overcoming the consequences of the coronavirus crisis for the long term as well as for economic and social recovery,
- a stronger and more innovative Europe,
- a fair Europe,
- a sustainable Europe,
- a Europe of security and common values,
- a strong Europe in the world.

## Digital Single Market

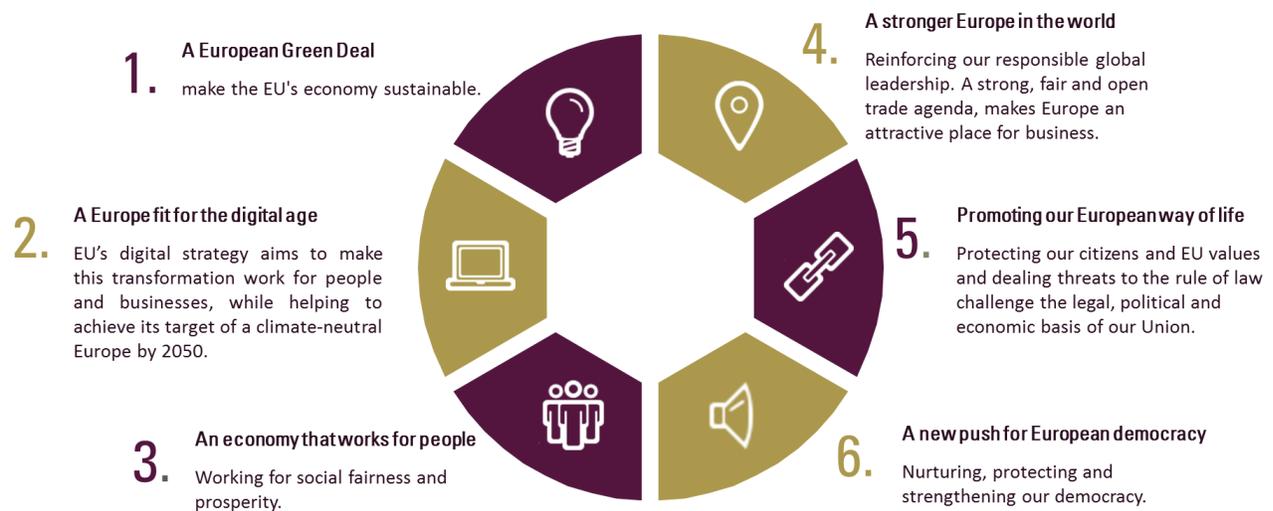
The Digital Single Market (DSM) has been described as a unified market, in which there will be a free movement of goods/services, and persons. In addition, the capital will be ensured and corporates and individuals businesses can

seamlessly access and engage in online activities following the rules of fair competition, data protection irrespective of their nationality or residence.

DSM targets on the support of EU platform of national initiatives for the coordinated support of digitalization of the EU industry, focusing also on the coherence and divergence of the Member States.

As a result, the visionary process of the EU DSM is the empowerment of digital citizens, consumers and entrepreneurs. For citizens all public services should be accessed online. Consumers should be able to take advantage of online opportunities (for shopping, payments, digital services etc) from everywhere. All the actions and regulations related to DSM aim to deliver value for both consumers and businesses.

## The top-6 Policy Priorities



*Source: EU Commission]*



The prices of the digital services/products should not change unfairly, the consumers rights should be clear and equal. With GDPR regulations consumers will be able to have self- control on their personal data and become more aware on the use and the benefits gained when they provide them. More specifically, this means that the same rights that a citizen has in his own country will be expanded on the online market within the DSM framework. In addition, a Europe for digital citizens will be formed where public services should be available to use online for all.

On the entrepreneurship and innovation field, the digital entrepreneurs will have the opportunity to operate online across the EU and have access to all EU markets instantly without barriers. A regulatory framework that reflects the dynamic nature of the digital economy will make it easier to transact online across the EU. While new entrants and startups will benefit from the increase of the accessibility to new markets and could not be excluded or frozen-out from large established markets.

In the dawn of the 4<sup>th</sup> industrial revolution, the digital transformation of the EU business and entrepreneurial ecosystems seems to be the only way. This path requires unique solutions to depend on the adoption of a range of new-generation, deep-tech solutions. In this sense the major tech areas are the following:

- Big and Open Data
- Artificial Intelligence
- Industrial strategy
- High Performing Computing (HPC)
- Cybersecurity
- Digital skills

DSM is expected to create great opportunities, especially for deep-tech startups in the fields of industries, services and of course the public sector. As one of the pillars of the European economy, it attaches great importance to its digital sectors such as electronics for automotive, security and energy markets, telecom equipment, business software, and laser and sensor technologies.

The DSM managed to overcome many existing obstacles, such as the reduction of cross-border parcel delivery prices, the procedures for accessing new markets, the simplification and coherence of VAT procedures that benefit businesses. The consumers enjoy also increased protection and data privacy (which increases operational costs) and prevention of unjustified geo-blocking (where feasible).

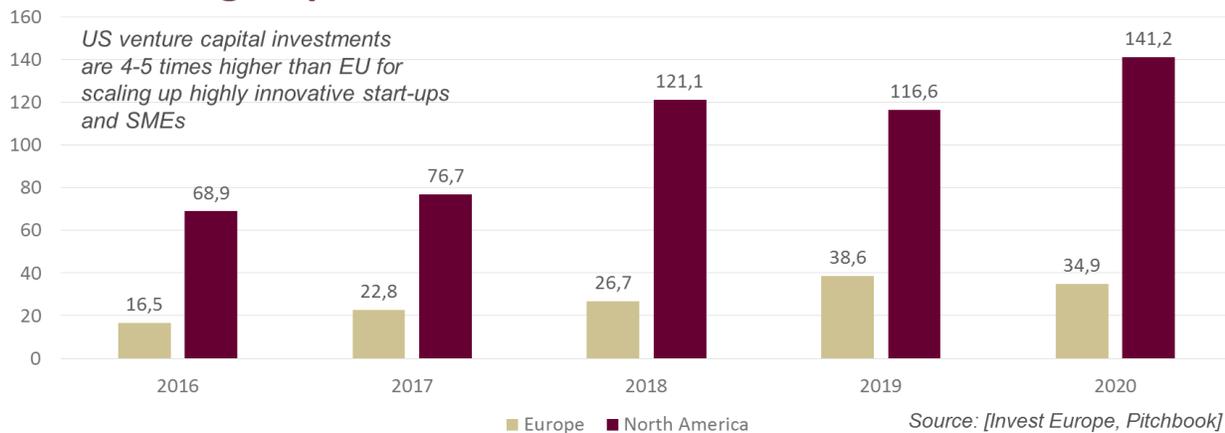


### Challenges and Barriers of DSM

High-tech sectors and the companies that participate in face many idiosyncratic challenges and risks. One of the major challenges is the severe competition especially from US and China. As a result in many traditional sectors and small and medium enterprises (SMEs), which represent 99% of the enterprises in EU economy, lag behind in the global landscape.

access to capital funding between the EU regions. Although the implementation of actions for the DSM is a process that needs time, while at the same time entails further administrative and compliance costs and bureaucratic procedures for SMEs and startups<sup>1</sup>. Furthermore, action is needed to minimize the multiple gaps that are linked to adoption and usage complexity. Some actions might occur digital skills development, digital literacy, affordability and/or better access to financing

### Funding Gap in EU



DSM is in an ongoing process, which in the field on new ventures aim to achieve easy ways for online transactions across the EU, improve the regulatory framework that reflects the dynamic nature of the digital economy and guarantee that new entrants will not be either excluded, or frozen out from established markets.

One of the greatest challenges that startups face is due to large disparities in digitization and

and establishment of connections between owners of infrastructure and public institutions and SMEs-startups.

Though the divergence is not the only challenge. Based on ECB findings<sup>2</sup>, advances in digitalisation amid a protracted slowdown in productivity growth, a phenomenon called “productivity paradox”. This paradox is associated with the with rising productivity dispersion at the firm

<sup>1</sup> Startups and the Digital Single Market workshop, available [here](#)

<sup>2</sup> ECB (2020), Virtually everywhere? Digitalisation and the euro area and EU economies, Occasional Paper Series, No 244



level. This means that the growth of the digital economy is not accompanied with high-productivity with higher productivity gains, due to low-productivity laggards, which offset the potential gains.

The relevant regulatory and legislative frameworks of DSM are focused on the cross-border e-commerce. Especially, the pandemic contributed to the use of e-commerce and digital payments, many cross-border sales lag substantially behind domestic, suggesting a substantial opportunity to do better.

The major challenge that EU start-ups and scale-ups face is the lack of VC or CVC funding, while they also suffer from difficulties seeking funding from other alternative channels. For example, bank lending channel is heterogenous within the EU (some countries have high costs and interests), IPOs are also problematic and limited only to the highly developed capital markets, and remain inconsistent issues for insolvency regimes. Also, EU venture capital investments are 4-5 times lower in comparison with US for scaling up highly innovative start-ups and SMEs

In addition, convergence of e-government and procedures needed for different countries seems to lag behind the needs of startups who target foreign markets.

### **Opportunities for startups**

This section aims to record some of the major guidelines of the Commission over the Digital Single Market (DSM), which generate opportunities for startups and innovators. This purpose is twofold: – first, to highlight some of the common issues that startups face across member states and that explains why policy makers should pay special attention to them; –

and second, to identify the opportunities that rise in the DSM era.

The e-commerce market within the EU is growing rapidly, with an annual rate of 14%, representing nearly the 3% of EU GDP. This creates an uprising dynamic market with opportunities. In addition, the lack of major players in the market for e-commerce platforms creates opportunities for startups, especially in the field of cross-border sales.

DSM is expected to lead to a prosperous future and create new market opportunities. The direct value of the data market in the EU28 is estimated at €77 bn in 2020 and expected to reach €110 bn in 2025, when the more optimistic scenarios show €146 bn. Additionally, the spillovers of the data market into the whole EU economy are estimated to reach €787 bn by 2025. Single Market gains focus more on services than on products, given that services represent roughly 70% of the EU marketplace in terms of value added and employment.

Despite the fact that the European Single Market represents the largest market worldwide, still lacks behind US and Asia in crucial features, such as the number of high-capitalization platforms, online marketplaces, using multi-sided business models.

From a regulatory perspective, many issues still need to be tackled based on the action plan of the DSM initiative. The main actions concern the increase of public funding and grants for deep-tech technologies like AI and robotics, due to larger capital and longer time needed for development. In addition, while some support actions for startups and scale-ups in all tech areas need to be addressed. High emphasis on these efforts need to be focused on the





availability of private capital (venture capitals, crowdfunding, Capital Markets Union etc).

From a market perspective networking seems to be the key for the development of boosting new EU deep-tech ventures. The main problems that deep tech start-ups face are that start-ups from peripheral ecosystems have limited access to large markets of the central Europe.

### Opportunities in Horizon Europe

Horizon Europe is the main funding vehicle for research and innovation in EU, providing opportunities for SMEs and startups, especially in Pillars II and III. The program with a total budget of €95.5 bn until 2027, aims to boost sustainable development and competitiveness in the EU and is structured across 3 pillars:

- The first is the Excellent Science Pillar supports frontier research projects to boost scientific competitiveness.
- The second is the Pillar for Global Challenges and European Industrial Competitiveness invests in research relating to societal challenges and
- The third Pillar Innovative Europe aims to support market-driven innovation through the European Innovation Council Program (EIC).

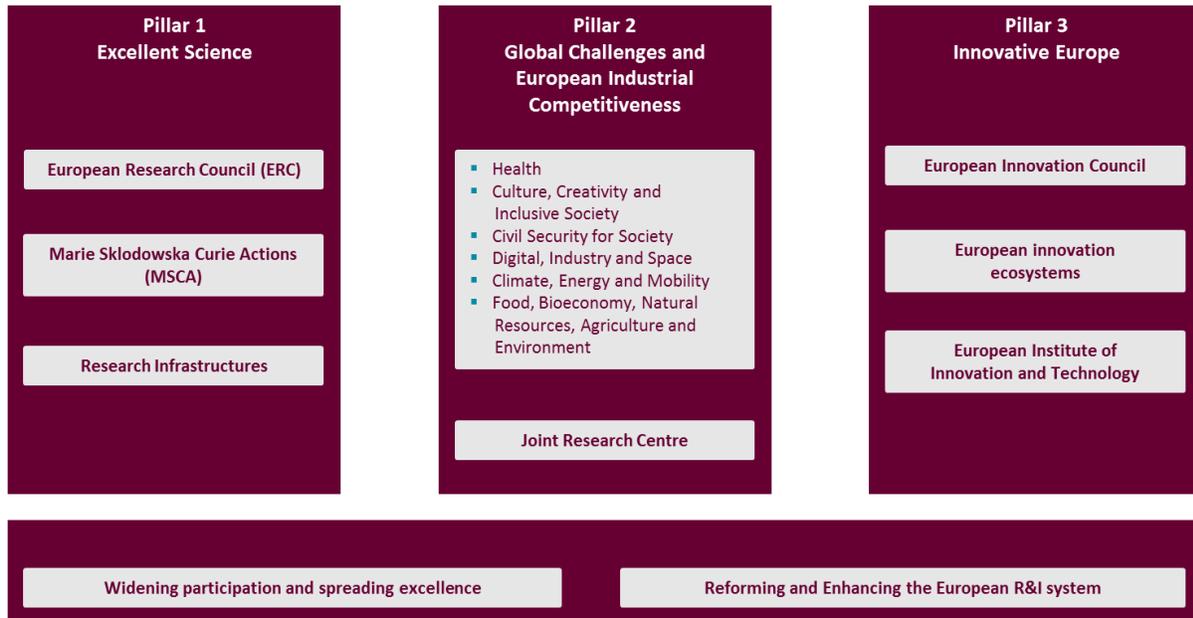
All open and previous calls for proposals are accessible in the [Funding and Tenders Portal](#). The Final draft of the [Work Programme for “Cluster 4: Digital, Industry and Space”](#) is available on-line as a source for preparation for deep-tech startups. The calls for Horizon Europe proposals will be announced officially with the finalization of the Work-Program 2021-2024.

Pillar 2 includes calls for nearly all sectors in which deep-tech startups expand their activities, such as Health, Culture, Creativity and Inclusive Society, Civil Security for Society, Climate, Energy and Mobility, Food, Bioeconomy, Natural Resources and Agriculture and Environment.

For the participation in Horizon Europe the establishment of a consortium is necessary composed by at least 3 partners from 3 different countries participating in the programme, with at least one partner must be from an EU country.



## Horizon Europe



*Source: EU Commission]*

A partner can be any legal entity – University, company, agency, organisation, etc

The three main criteria for the evaluation of proposals for the calls are a) Excellence (relevant to the topic of the call) Concept, objective, work-plan b) Impact Contribution to expected impacts listed in work programme Plans for dissemination/exploitation and c) Quality and Efficiency of the Implementation Individual participants and consortium as a whole allocation of resources.



### EIC Accelerator Program

The Final draft of the [Work Programme for “European Innovation Council Program \(EIC\)”](#) is available on-line. EIC Program provides a unique opportunity for innovators and SMEs, as a one-stop shop for leveraging private finance to scale up and access the market.

The EIC Accelerator Challenges are open to innovations in the specific fields of technology or application described by the challenges in sections III.3.1 and III.3.2 of the EIC Work Programme 2021. However, innovations that harm the environment or social welfare or that are designed primarily for military applications will not be supported.

You should apply to the **EIC Accelerator Challenge – Green Deal innovations for the Economic Recovery**, if your project supports the Green Deal implementation by significantly contributing to at least one of the following sustainability goals:

- Increasing the EU’s climate mitigation and/or adaptation ambition;
- Supplying clean, affordable and secure energy;
- Transitioning industry to a clean and/or circular economy (including waste prevention and/or recycling);
- Building and renovating in an energy and resource efficient way;
- **Accelerating the shift to sustainable and smart mobility;**
- **Transition to a fair, healthy and environmentally friendly food system;**
- Preserving and restoring ecosystems and biodiversity (including nature-based solutions that provide co-benefits for climate adaptation and mitigation);

- Realising a zero-pollution ambition and a toxic-free environment.

Within the Green Deal goals, specific priority is given to projects relating to key innovations for the green economic transition as identified in the Recovery Plan for Europe. In that particular regard, at least 50% of the companies selected for the interview phase must have submitted proposals relating to one the following areas:

- Renewable energy, including renewable Hydrogen and energy storage
- Deep Renovation of buildings
- Low carbon industries
- Batteries and other energy storage systems

*Search for Partners and potential collaborations in the [Funding Tenders Portal](#) and ask **EKT team** for partnership opportunities and guidelines via the [Enterprise Europe Network](#) for research, technological and commercial opportunities.*

The total budget of EIC is €10 billion for the period 2021-2027, and funding opportunities of more than €1.5B in 2021, with the 70% of the available budget focusing on SMEs and startups/scaleups. The programme has a total budget of €1 bn, of which €100 mln will be available as equity financing. Applicants have two options for funding:

**Grant Only: Grant (EUR 0,5M-2,5M):** Grant Only support is for SMEs in need of one last push before the scaling-up phase. Activities could, for example, include product/service development, trials, prototyping, validation, demonstration and testing in real-world conditions.



**Blended Finance: Grant (EUR 0,5M-2,5M) + Equity Funding (up to EUR 15M):** Blended Finance combines grant and equity for SMEs who also need extra support for commercialisation activities. Activities could include product/ service development, trials, prototyping, validation, demonstration and testing in real-world conditions, as well as market replication and commercialisation activities.

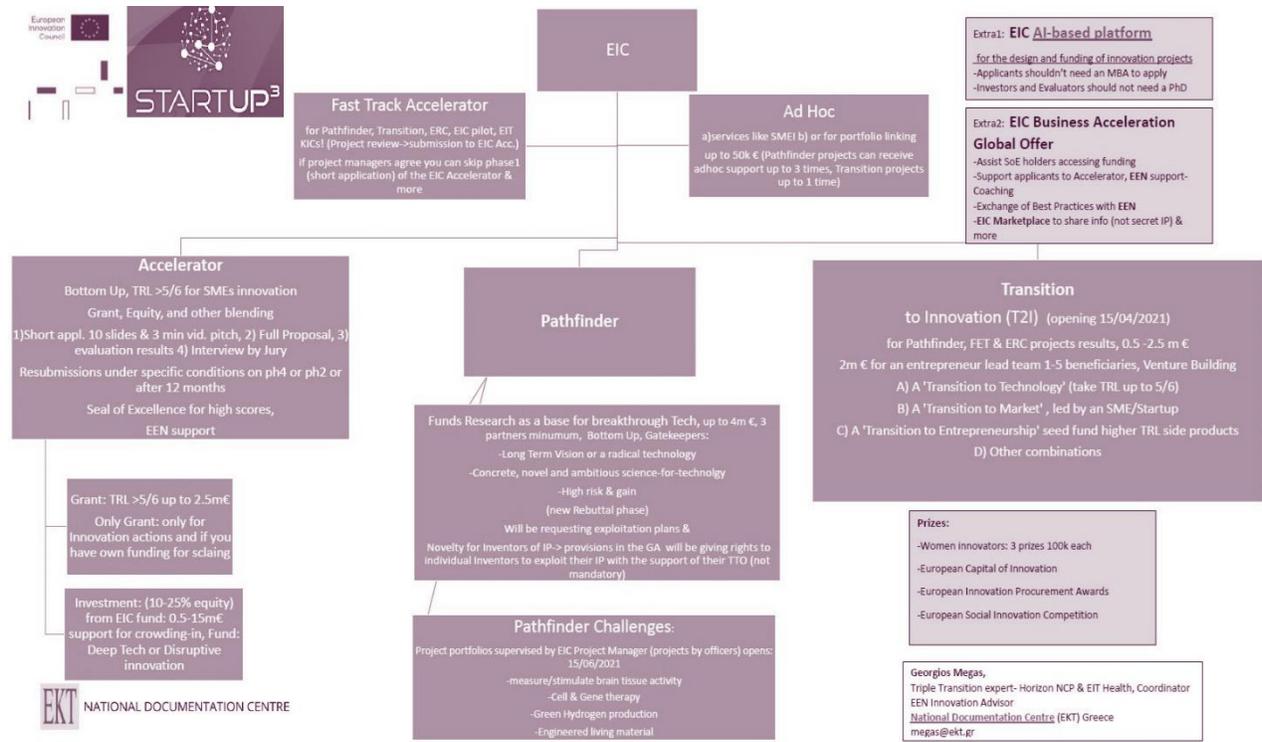
build the strategic digital capacities of the EU and facilitate the wide deployment of digital technologies. The budget allocation by tech category is the following:

- **Supercomputing (€2,2 bn)**, to increase accessibility and broaden the benefits in the areas of health, environment and security, industry, including SMEs.
- **Artificial Intelligence (€2,1 bn)**, to open up AI to businesses and public administrations.
- **Digital Skills (€580 m)**, for specialized programmes and traineeships for future experts and upskilling of the existing workforce.

### Opportunities in Digital Europe Programme

Moreover, the Digital Europe Programme (DIGITAL) with a budget of €7.5 bn is the first EU financial instrument focused on bringing digital technology to businesses and citizens. It aims to

### EIC Structure



## Digitising European Industry

The Digitising European Industry (DEI) launched in 2016, as an ambitious initiative for the digital transformation of the EU industry to boost innovation, competitiveness, inclusion and impact. The main purpose of DEI is to meet the challenges for policymakers that arise in the dawn of Industry 4.0.

EU Commission utilizes its next long-term budget towards 2027, focusing on the major priorities of digital and green transition. Deep-tech startups and SMEs are considered as top priority, since their growth rates are on average double than the non-digital entities. In this sense the policies, strategy and actions undertaken, consider the increase of new-firm accessibility to market and the growth of firms which are major contributors for the development of advanced technologies.

DEI aims to strengthen leadership through EU partnerships and leverage industrial platforms to support the development of digital infrastructures, large-scale pilots and Public-Private Partnerships (PPPs) in key digital technologies. Additionally, there is a necessity of a holistic regulatory framework for Industry 4.0 era seems to be a necessity, as well as the EU citizens need to gain awareness, new-skills and life-long education to deal with the digital future

Policies also aim deal with the obstacles in upscaling of tech startups to gain from their increase in productivity in tech areas and surpass the existing obstacles.

At first, some of the main technological areas of priority are big data and open access, cloud computing and cybersecurity, artificial intelligence and machine learning, industrial IoT, robotics, nanotech, AR/VR, 5G tech and the creation of capacity in digital infrastructure. In addition, the empowerment of EU citizens (knowledge, skills etc) need to be supported for the creation on innovative products/services for the next decades.

Digitising European Industry is established in five pillars:

- European platform of national initiatives on digitising industry to coordinate and ensure coherence among Member States digitising industry initiatives.
- Digital innovations for all: Digital Innovation Hubs are ecosystems that consist of SMEs, large industries, startups, researchers, accelerators, and investors.
- Strengthening leadership through partnerships and industrial platforms to support the development of digital industrial platforms and large-scale piloting and
- Public-Private Partnerships (PPPs) in key digital technologies such as 5G, big data, HPC, cybersecurity, photonics, robotics and electronic components & systems.
- A holistic regulatory framework that meet the needs and challenges for the new digital age. At the core stand ethics, openness and symbiosis of human and tech in the European Union.
- Preparing EU citizens for a digital future and empower their adaption through education and skill building on digital



transformation, focusing on new technologies and in all sectors.

diffusion of research and business outcomes in the digitalization process (See Graph 2).

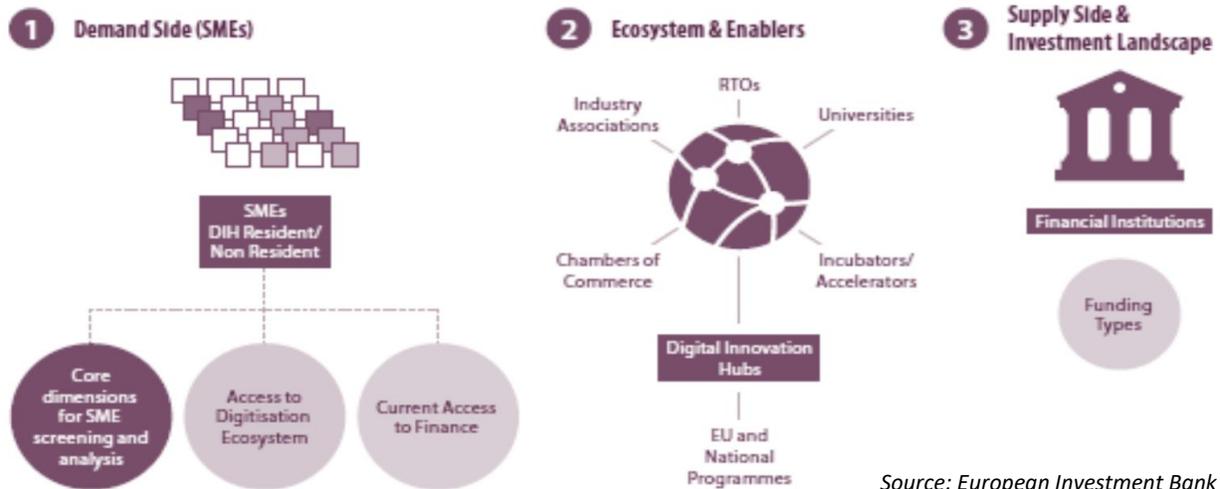
### Digital innovation hubs

Digital innovation hubs are multi-partner coordinators acting as one-stop shops providing support services to companies and SMEs for their expansion and utilisation of emerging digital technologies across all areas. In addition, DIHs provide services for better market access, innovation management, business models and

DIHs represent a main vehicle for the increase of overall competitiveness throughout better knowledge and expertise mainly in technology solutions and technology transfer (digital innovations piloting, prototypes, MVPs). Furthermore, they offer business and financing support to customers to allow them to implement these innovations across their value chain.

More specifically, DIHs will compose ecosystems

### DIH structure and services



Source: European Investment Bank

production processes. Digital Innovation Hubs will actually be well structured ecosystems where all research and market stakeholders such as start-ups, SMEs, large corporates, researchers, incubators and accelerators, and investors will participate and interact for the

with purpose the facilitation on SMEs on their business and technology needs, such as access to finance for a great range of financing instruments and EU grants, digital transformation and digitalization, innovation, sustainability etc.





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### Related Literature

ECB (2020), Virtually everywhere? Digitalisation and the euro area and EU economies, Occasional Paper Series, No 244

European Commission (2015a), A Digital Single Market Strategy for Europe, COM(2015)192 final

European Commission (2015b), Digital Single Market – Analysis and Evidence, SWD(2015) 100 final

European Commission (2015h), Upgrading the Single Market: more opportunities for people and business, COM(2015) 550 final.

Startups and the Digital Single Market workshop, available [here](#)

Casorat, A., & Verbeek, A. (2020). Financing the digitalisation of small and medium-sized enterprises: The enabling role of digital innovation hubs.



### Upcoming Brokerage Events and Conferences

October-November 2021				
Event Name (maritime, space, health, agrofood)	Date	Sector	Host - Organizer	Hyperlink
Horizon Europe Cluster 4 Industry International Networking Event	28/10/2021	INDUSTRY	B2MATCH	<a href="#">link</a>
DRONETECH 2021 - B2B Hybrid Matchmaking Event	28-29/10/2021	INDUSTRY	B2MATCH	<a href="#">link</a>
Don't miss the opportunity to get involved in the next Horizon Europe 2022 Health proposals!	29/10/2021	HEALTH	EEN	<a href="#">link</a>
Textile Fashion Tech	2-6/11/2021	MANUFACTURING	B2MATCH	<a href="#">link</a>
Turning Contacts Into Contracts   Virtual B2B Event	1-5/11/2021	ICT	B2MATCH	<a href="#">link</a>
Block.IS Cluster Mission Regensburg	2-3/11/2021	MOBILITY	CLUSTER COLLABORATION	<a href="#">link</a>
Learning expedition to Prato	7-9/11/2021	AEROSPACE	CLUSTER COLLABORATION	<a href="#">link</a>
EU Energy Day - Hydrogen to drive the EU's green transition	14/11/2021	ENERGY	EC	<a href="#">link</a>
Brokerage Event Smart City 2021	16-19/11/2021	ENVIRONMENT	B2MATCH	<a href="#">link</a>

For all the events available in our datalists, please click [here](#).



**Selected Competitive calls and calls for third parties (Cascading Grants)**

 <p><b>ZDMP</b></p>	<p style="text-align: right;"><b><u>15 October 2021</u></b></p> <p style="text-align: right;"><b><u><a href="http://www.f6s.com/zdmp/apply">//</a></u></b></p> <p style="text-align: center;"><b><u><a href="http://www.zdmp.eu/calls">www.zdmp.eu/calls</a></u></b></p>
	<p>Project full name: Incubator of Trusted B2B Data Sharing ecosystems of collaborating SMEs linked to Digital Innovation Hubs          Project acronym: i4Trust          Deadline: 6 September 2021 extended to <b>25 October 2021</b>, at 14.00 (CEST - Brussels time)          Expected duration of participation: <b>9 months incubation programme</b>          Total EU funding available: <b>maximum €120 000 / consortium</b>          Submission &amp; evaluation process: Information on submission and evaluation process is available on the Open Call website          Further information: <a href="mailto:opencall-help@i4Trust.org">opencall-help@i4Trust.org</a> / <a href="#">i4Trust Website</a> / <a href="#">i4Trust Community</a></p>
	<p>Project full name: Blockchain Innovation Spaces          Project acronym: Block.IS          Deadline: <b>27 October 2021</b> at 17:00 (Brussels time)          Expected duration of participation: <b>3 weeks</b>          Total EU funding available: <b>€30 000</b> for event vouchers and prizes including <b>€6 000 for event vouchers only</b>          Submission &amp; evaluation process: The Block.IS External Challenges will organise 2 challenges. In each challenge 8 teams will be selected to compete for 3 event vouchers to the final event of €1 000 and a prize of €12 000 to be awarded in to the best concept, in a two stage process.          Submissions are available via <a href="https://www.f6s.com/block.is">https://www.f6s.com/block.is</a>          Further information: Details available at <a href="https://blockis.eu/">https://blockis.eu/</a></p>
	<p>Project full name: Reinforcing the AI4EU Platform by Advancing Earth Observation Intelligence, Innovation and Adoption          Project acronym: AI4Copernicus          Deadline: <b>31 October 2021</b>, at 17.00 (CEST - Brussels time)          Total EU funding available: <b>€10 000</b>          Submission &amp; evaluation process: Detailed information about the 2nd AI4Copernicus Open Call can be found on <a href="https://ai4copernicus-project.eu/open-call-info/">https://ai4copernicus-project.eu/open-call-info/</a>          Further information: <a href="https://ai4copernicus-project.eu/">https://ai4copernicus-project.eu/</a></p>



### EU Funding Programmes Radar

Funding Category	Programme Name	Institution	Application to	Links	Type	Fields of application 1	Source of funding 1
INNO	EIC Accelerator	EASME	SMEs	<a href="#">link</a>	hybrid	PRJ EQ	Horizon Europe
INNO	EIC Pathfinder	EASME	SMEs	<a href="#">link</a>	Grant	PRJ EQ	Horizon Europe
INNO	EIC Scalator	DG Research	SMEs	<a href="#">link</a>	Grant	PRJ EQ	Horizon Europe
INNO	InvestEU	EC	SMEs	<a href="#">link</a>		INV PRJ	Other EU
INNO	Eurostars	Eureka	SMEs	<a href="#">link</a>	Grant	PRJ	Other EU
INNO	EIT Food – Rising Food Stars	EIT Food	SMEs, Others	<a href="#">link</a>	Grant	PRJ INV	private
INNO	Open competitive calls - cascade funding	EU- funded projects Consortium	SMEs	<a href="#">link</a>	Grant	PRJ	Horizon Europe
Other	DSM COSME	COSME	SMEs, others	<a href="#">link</a>	Grant	PRJ	COSME

*Comment: for explanations in the abbreviations see the table on the next page.*

For the complete list of EU Funding Programmes, please click [here](#)

Final author: Mr.Athanasios Charemis, EKT, Startup



Annex

<b>Field of application</b>	INV = investment activities	INV
	WC = working capital needs	WC
	EQ = equity capital needs	EQ
	EXP = export activities	EXP
	PRJ = project based grant	PRJ
	ADV = advisory needs	ADV

<b>Funding Category</b>	innovation	INNO
	R&D	R&D
	environment/energy/renewables	ENV/REN
	energy efficiency	ENEFF
	startup	STARTUP
	culture/creative industries	CULT/CREAT
	spin-off	SPIN-OFF
	capital needs	CAP NEEDS
	other	OTHER
	social	SOCIAL
consultancy	CONSULT	

<b>Funding Range</b>	REG = regional	REG
	NAT = national	NAT
	EU = EU	EU
	WW = worldwide	WW

<b>Source of Funding</b>	InnovFin
	EIF
	ESIF
	national
	regional
	private
	Horizon Europe
	EIB
	EaSI
	Other EU Programme
	ERDF
	Global Innovation Fund
	Foundations&Donors
	Life +
	COSME
Other	

<b>Funding Instruments</b>	Grant
	debt financing
	equity investment
	own investment
	microloan
	donation
	risk-sharing
	guarantee
	hybrid
	crowdfunding/investment
	x
	xx

