DIHNET.EU
Europe's Network of Digital Innovation Hubs

D4.3 Report of funding partners' consultation

Grant Agreement Number	825640
Project Acronym	DIHNET.EU
Deliverable Date	30th June 2021
Authors	Geraldine Andrieux Gustin (BLUMORPHO), Olivia Uguen (BLUMORPHO),
Number of Pages	
Number of Annexes	0
Version	03
Reviewed by	Kristina Karanikolova
Approved by	Maurits Butter
Dissemination level	Public

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 825640.
www.dihnet.eu

European Commission

Executive Summary

The European Commission main expectations regarding Digital Innovation Hubs (DIHs) and future European Digital Innovation Hubs (EDIHs) is that they provide European SMEs with services and support in their digitization and that they build strong and sustainable European ecosystems.

To do so, DIHs and future EDIHs are expected to offer services covering the whole innovation value chain from R&D, to innovation support processes up to access to public and private investment.

However, DIHs are supporting different types of companies with various digitization strategy: early stage and innovative companies as well as more mature and rather low-tech SMEs. These huge variety and heterogeneity in companies' profiles represent an additional challenge for DIHs and EDIHs when building their services portfolios in order to address companies' expectations regarding access to private equity or debt financing.

This deliverable aims at exploring how (E)DIHs can build a sustainable and effective ecosystem gathering all innovation funding partners including private investors to support the green and digital transformation of European economies and companies as a whole while allowing also the emergence of digital European champions.

In order to picture the challenges ahead of the (E)DIHs communities to facilitate the access to private funding to innovative companies, BLUMORPHO has analysed the strategic issues faced by others innovation stakeholders regarding private investment. We have worked on identifying key stakeholders the (E)DIHs communities are expecting to work with and good practices that could be applied in the (E)DIHs strategy.

Based on several interviews with potential funding partners who aim at supporting National and European innovation policies and DIH collaborations at the European level, this deliverable focuses on how the DIHs and EDIHs communities can and should facilitate access to finance for SMEs and midcaps and, especially, access to private finance as an alternative to public funding.

Various categories of investors and funding authorities have been identified as key actors and interviewed for the deliverable:

- National/local Banks participating to the InvestEU network
- National/local development agencies or innovation support programmes
- The DG Research and Innovation
- The European Investment Bank (EIB)
- The European Investment Fund (EIF)
- Innovations Actions developed under H2020 framework
- The Eureka clusters
- Private equity investors
- Crowdfunding platforms.

In the strategy defined by the European Commission to twin the Digital transformation and the Green new deal for a more sustainable Europe, the aim of the DIHs and EDIHs should not only be to develop cross-European collaborations between each other's but to really make the best of their ecosystem to build on existing strength. As one of the four main functions of the DIHs according to the European

Commission is to support companies in their access to investments, "building on existing strength" should include developing stronger links with banks, large companies and private investors.

In this regard, the following observations and recommendations can be made:

- **The need to reinforce the collaboration between DIHs/ EDIHs and private investors to support the emergence of "bankable" companies**

DIHs and EDIHs have to support the emergence of companies fitting with private investors expectations looking for business driven companies opposite to technology push positioning. Meanwhile DIHs and EDIHs have a key role to play in showcasing differentiation brought by new technologies developed or adopted by the companies they are supporting. Reaching such objective will require a higher level of interactions between DIHs/ EDIHs and private investors to allow the DIHs & EDIHs to better align the dots between the technologies and their market attractiveness.

Access to funding has a double objective: bringing the companies supported by DIHs/EDIHs to their next development steps but also supporting the sustainability of DIHs/ EDIHs activities. Public and private funding are key to fill the existing funding gaps to support innovation in Europe and the so-called Valley of death.

- **The importance for the DIH and EDIHs communities and the Private investors ones to learn from each other**

More and more stakeholders in the private investment world are in line with the Green Deal strategy and the Digital Europe Programme of the European Commission and really committed to make sure the digital transformation enables and supports the green transition.

While emphasising the huge potential of the digital transformation and accelerating the adoption of new technologies, the Covid19 crisis has also contributed to increase the global awareness on the need for a more sustainable development. A strong collaboration between (E)DIHs and private investors is key to allow the development of green technologies and the development of more sustainable business models thanks to mutual learning processes, cross-fertilisation and co-investment.

In a time of exponential change, this is only by learning to work closer together that the DIHs/EDIHs community and banks, private investors and large industries will foster the emergence of a strong sustainable European Digital Industry and strong European Digital Champions.

- **The emergence of new innovative investment schemes to bridge the gap from public to private funding**

Contribute to build strong European networks in all European countries where public and private funding players will join forces and develop interactions and collaborations must be considered as a key task for the DIHs/EDIHs community. New investment schemes should be considered to further support access to private financing. Those new investment schemes should be developed in close collaboration with EDIHs and DIHs locally and at European level to tackle both the remaining innovation funding gaps and the remaining European geographical disparities.

The mission of EDIHs and DIHs in support to find investment is a big and complex challenge to address but it will be key for the success of the European DIH strategy. It will require closer collaboration between (E)DIHs and private investors.

To support such evolution permitting (E)DIHs and private investors communities to learn from each other, we strongly suggest integrating tangible KPIs on EU collaborations of EDIHs with private investors at Pan European level. Such KPIs will contribute to make those two ecosystems working closely in a win-win approach since they address the same objectives but with different approaches. It will contribute to build next level cooperation as well as supporting the sustainability of actions driven by the European Commission.

Table of Contents

1 Introduction

1.1 Objectives

The main objective of DIHNET WP4 is to support key stakeholders in the EU DIHs community to develop a common vision and a joint strategy on key pertinent topics regarding the development of their ecosystems. To do so, the WP has identified 4 actions to focus on:

- Task 4.1: Development of a thought leadership approach
- Task 4.2: Smart Specialization and collaboration
- Task 4.3: Business models for EU-networks
- Task 4.4: Other thought leadership topics

Since the emergence of the Digital Innovation Hub concept, 4 pillars have been identified as key drivers and objectives to their action as described in the figure below. Those four pillars are at the core of the WP4 thought leadership approach.

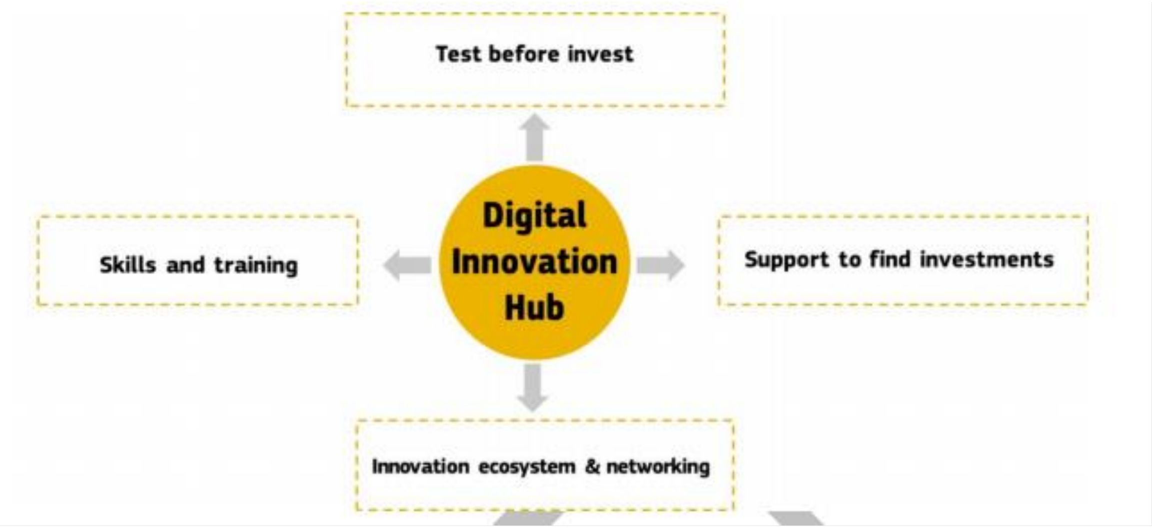


Figure 1: Main functions of European Digital Innovation Hubs – EDIHs in DEP – European Commission Draft working document – January 2021

The objective of this deliverable is to set-up the scene to support DIHs and EDIHs in the implementation of the 4th pillar "Support to find investments". It takes into account two various challenges those organisations have to tackle: on one hand the support to innovative SMEs in their digitization journey and, on the other hand the sustainability of the DIH and EDIHs actions beyond public financing.

This deliverable aims at addressing the emerging issues when addressing two challenges:

- How DIHs should handle the fourth pillar of their actions i.e. facilitating "access to private funding" for the companies they will support?
- How the DIHs/EDIHs community should/could build strong European networks in all European countries, where public and private funding players will join forces and develop interactions and collaborations?

To reach a common vision on this question, this deliverable has been build following two main objectives:

- Describing the main innovation financial schemes DIHs and EDIHs could benefit from through collaboration.
- Suggesting recommendations of actions to leverage on their strength and the strength of their ecosystem to facilitate the access to funding for the companies they will support by bridging public and private financing.

1.2 Methodology: Identification and interview of potential & future funding partners for DIHs & EDIHs and innovative companies in Europe

The first questions we had to address were the following:

- Who are the potential funding partners for the Digital Innovation Hubs and their members? Who are the stakeholders the EDIHS are expected to interact with, in an already vivid ecosystem where many innovation support programmes are flourishing?
- How can the 4th Pillar "Support to find investments" be interpreted? What kind of relationships should the EDIHs develop with those structures already involved in the support to Innovation and what could be their added value?

To answer the above questions, DIHNET has mapped the different key European innovation financing stakeholders DIHs and EDIHs could and should collaborate with as illustrated in figure 2. We conducted interviews to identify and analyse their own strategic challenges with the ambition to:

- Identify their expectations to further finance innovative companies
- Position DIHs and EDIHs as strong partners to reach their own objectives.

Figure 2: DIHs & EDIH innovation financing environment

The work developed in this deliverable is based on desk research, ad-hoc interviews and lessons learnt from concrete use cases and workshops with innovative companies including through collaborations with Innovation Actions.

We especially focused on key players as described in figure 2:

- Institutions at the European level, EIB and EIF, implementing policies and programmes to create the conditions to fill in the funding gaps for innovative companies in Europe.
- Stakeholders active in innovation management in general and having local or national strategy complementary to those of the DIHs and EDIHs. Those innovation stakeholders are already dealing with the challenge of combining public/private finance and supporting SMEs: clusters, local development agencies.
- Private stakeholders active in innovation funding either banks or private investors.

Each time it has been possible, those institutions have been either interviewed in the scope of our action so that they can share their own challenges or invited to participate to workshops.

Here is the list of the various categories of investors or funding authorities that we've identified as key actors to be potentially connected to the DIHs/ EDIHs and which can be or should be partners of DIHs.

- National/local Banks participating to the InvestEU network: (BNP-Paribas, We are Innovation, Nordea, FirstInnoBank,)
- National/local development agencies or innovation support programmes:
  - Digital Catapult in UK
  - SATT and IRT in France: Vincent Marcatté, President of the French Institute Technologies association, gathering the 16 French IRT/ITE and Director of the Open Innovation Orange Labs.
  - Smart Industry Fieldlabs in The Netherlands: Henk Gritter from the Dutch Ministry of Economic Affairs and Climate
- The DG Research & Innovation: Nassima Ferahtia
- The European Investment Bank (EIB): Arnold Verbeek and Alberto Casorati
- The European Investment Fund (EIF): Cyril Gouiffès, Head of Social Impact Investment at the EIF
- The Eureka clusters, PENTA-EURIPIDES: Rémy Renaudin, previous EURIPIDEs Director and French EUREKA National Coordinator and Peter Connock, PENTA Director at AENEAS
- Private equity investors: BtoV, Debitum Network, Chrysalix Venture Capital, SNGLR Capital, TRUMPF Venture
- Crowdfunding platforms: October, Growfunding, Wiseed, KissKissBankBank, Seedmatch, Lita, Spreds

Various workshops have given us the opportunity to work on specific use cases and identify success stories or remaining challenges:

- A DIHNET online survey & workshop "*Exploring business models for DIHs sustainability in Europe*" gathering DIHs to identify their challenges in June & July 2019.
- An EIB workshop gathering DIHs prior to the publication of their report [Financing the digitalisation of small and medium sized enterprises, the enabling role of digital innovation hubs](), published in July 2020.

- A Smart Anything Everywhere workshop gathering 20 startups with the participation of DG research& Innovation and Innov'Fin representatives during the INPHO Venture Summit.
- Working sessions with various Innovations Actions' application experiments including specific uses cases for which contact has been taken with Innov'Fin national representatives.
- Round tables with start-ups, EIC and private investors organised during BLUMORPHO's events (Impact Week 2020 & 2021 and FED4SAE Innovation Club official launch).

We've worked on the dual challenge for DIHs and EDIHs to facilitate access to funding for innovative SMEs and to sustain their own activities. It was important to take into account this question of sustainability of the structure as it was an important challenge for all the Innovation actions supported in H2020 or for DIHs at the time DIHNET was implemented.

The document first addresses the inputs collected through our interactions with innovation financing stakeholders.

From those first insights, the document highlights the kind of interactions that still need to be developed. The document is then exploring to which extent the DIHs and EDIHs community is expected to improve the performance of this innovative ecosystem and is listing a series of recommendations that have been introduced to key stakeholders and discussed during the DIHNET final event.

2 Results

The inputs & lessons learned from the interviews of active partners in the European innovation financing ecosystem can be articulated following the three categories of stakeholders:

- The expectations of the European Commission and the European Institutions regarding the sustainability challenges of the European companies and the sustainability challenge of the innovation management structures that are active in Europe;
- The challenges faced by those innovation management structures to tackle the remaining investment gaps for innovative Companies in Europe;
- The challenges they faced themselves to implement their own development strategies and bridge public and private funding.

2.1 European institutions' expectations

2.1.1 Maximize European Commission's ambitious & transformative development policies for Europe

In parallel to the Digital Europe Programme, the European Commission has developed a set of policies and strategies aiming at ensuring Europe global competitiveness and economic sovereignty while protecting European values and principles. All those policies are strongly related to the challenges of the digital transformation and also requires a reinforcement of public/private collaborations to give their full potential. To name only a few of them, the European Green Deal and the European Industrial strategy are of key importance for DIHs and EDIHs whose main mission is to support companies in their digitalisation and facilitate the emergence of European champions.

- The European Green Deal published in December 2019 follows three major objectives: (1) protect and restore natural ecosystems, (2) promote a sustainable use of resources and (3) improve human health. This requires a strong commitment of all the value chains' stakeholders and especially strong synergies between public and private innovation partners. The European industrial strategy published in March 2020 lays the foundation for a renewed European industrial strategy that will: (1) enhance Europe's strategic autonomy, (2) make EU Industry more competitive globally and (3) support the twin transition towards a green and digital economy. To fulfil the first two objectives, the EC has decided to monitor the resilience of the Single market through 14 industrials ecosystems listed below and to analyse the strategic dependencies of the more sensitive ones among them namely Digital, Health, Aerospacial & Defense, Electronics, Renewable Energy, Energy Intensive industry.

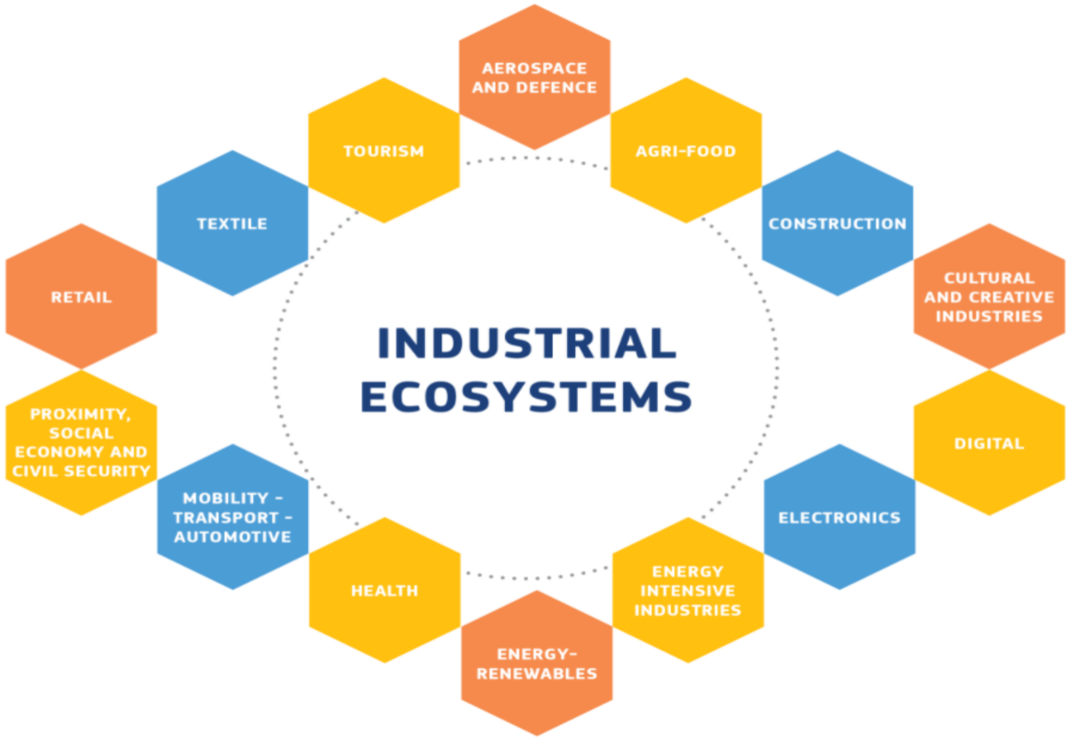


Figure 3: Strategic Industrial ecosystem for the Recovery Plan according to the European Commission

In order to support the twin transition to a green and digital economy in those industrials sectors, the European Commission has planned and launch a series of actions and policies (Transition pathways, Horizon Europe partnerships, the Recovery and Resilience Facility (RRF)) where a strong collaboration is needed between European institutions, industrial stakeholders and national and local authorities. The role of private funding partners to enable effective change management will also be key to drive investments towards sustainable products and services.

- Just after the publication of the renewed European industrial strategy, the World health organisation announced the Covid-19 as a pandemic. And the less that we can say is that the Covid-19 has put a harsh light on the sustainability of European ecosystems and companies and on the resilience capacity of the European Single market. Launch in February 2021, the Recovery and Resilience Facility (RRF) provides Member States with €723,8 billion to support reforms and investments undertaken to mitigate the impact of the pandemic. The RRF aims also at supporting European economies. The Facility has clear target in terms of investment in the Climate change mitigation and adaptation (minimum 37%) and investment in the Digital transition (minimum of 20%). There again, we can see that building stronger cooperation between DIHs and private investors will be key to make the best of this huge public investment effort coordinated by the European Commission.

Those examples of highly transformative European policies are just a few examples of European strategies that are requiring a reinforcement of the collaboration between public and private stakeholders. DIHs and EDIHS are key elements for the good implementation of the vision of the European Commission expressed in those ambitious strategies.

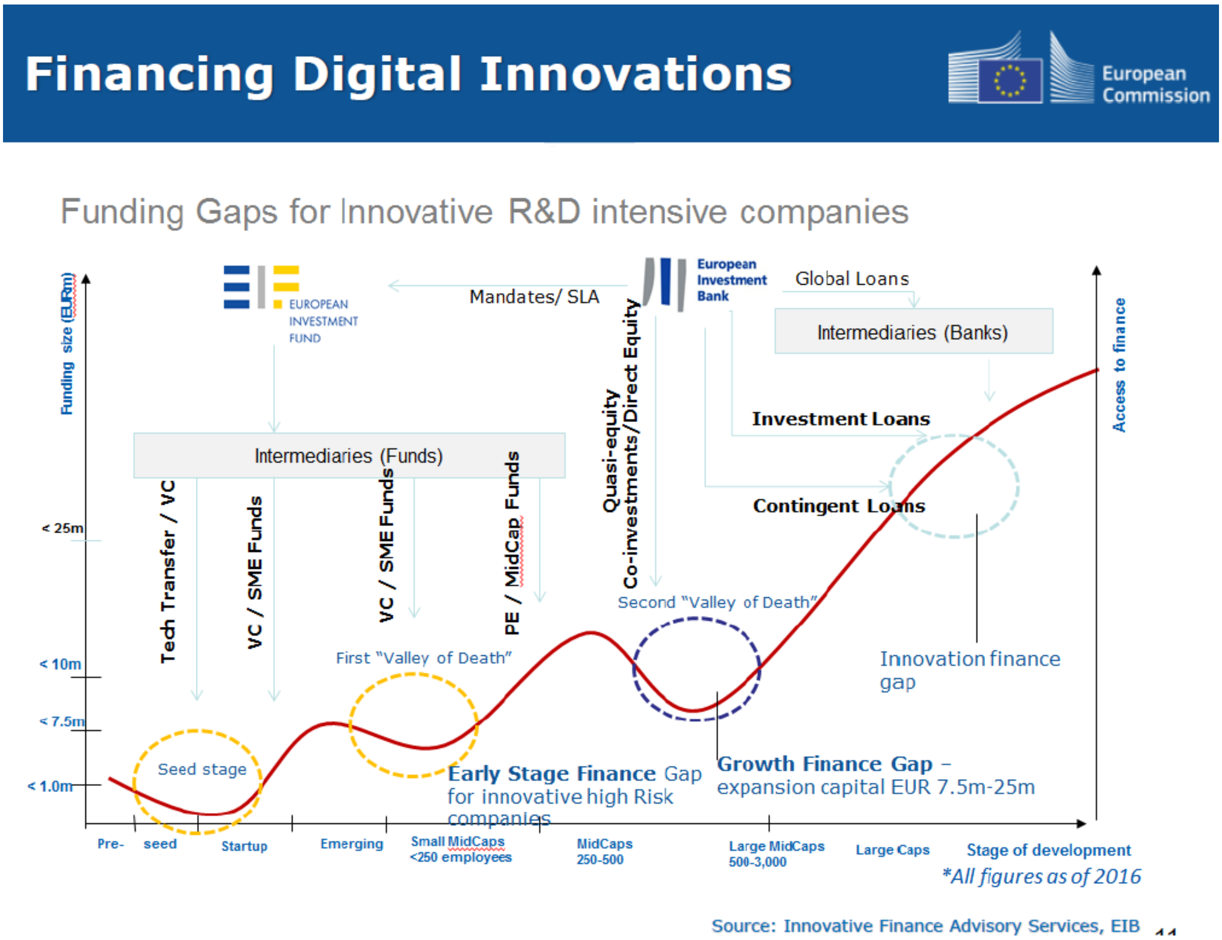
2.1.2 European Investment Bank (EIB) and European Investment Fund (EIF) objectives to fill the funding gaps for European innovative companies

The EIB and EIF are two major institutions developed by the European Commission to support the access to finance for innovative and research & development intensive companies. It is thus important to position them in the DIHs and EDIHs ecosystems.

- As the bank of the European Union, the EIB provides various services which can be interesting for the EDIHs and for their innovative members: loans, guarantees, equity investments and advisory services.
- The EIF is a fund of funds, specialised in support to early-stage SMEs and Venture capital investments.

EIB and EIF are critical institutions to collaborate with for DIHs and EDIHs who are operating services at specific innovation stages defined by the European Investment Fund in the figure below as "funding gaps for innovative R&D intensive companies".

DIHs and EDIHs are addressing real challenges not only to twin the green and digital transformation strategy and implement it towards European SMEs and Industries, but also to address European investment funding gaps at different stages of innovation maturity. They are part of the innovation funding ecosystem the EIB and EIF aim at structuring.



2.1.2.1 European Investment Bank (EIB)

The EIB strategy is focusing on Climate& environment, development, innovation & skills, SMEs and infrastructure & cohesion. The EIB has an history of supporting accelerators, they were very active in assessing how to support the development of DIHs themselves and how to support the digital transformation of the European industries. In the report *Financing the digitalisation of small and medium sized enterprises, the enabling role of digital innovation hubs*, published in July 2020, the EIB made it quite clear that **it will not invest in DIHs or EDIHs operations as such but that the institution remains a potential partner**. Advocating for the enabling role of DIHs to support SMEs and Midcaps in their access to finance and for the emergence of new financing models as an alternative to public funding, the EIB made a few recommendations:

1. Strengthen digital innovation hubs reach and role in helping SMEs & mid-caps access financing support;
    a. Increase the number of DIHs in underserved regions;
    b. Strengthen the link between DIHs and banks;
    c. Strengthen the link between DIHs large corporations and equity investors;
2. Diversify funding sources where possible and support digital innovation hubs to develop more commercially-oriented business models
3. Develop a central platform to drive awareness and ambition
4. Develop a voucher scheme to provide technical assistance to small and medium-sized enterprises and a marketplace to facilitate matchmaking
5. Explore the development of dedicated financial instruments to support digitalisation
6. Consider developing dedicated equity instruments and/or higher risk-absorption debt products for growth capital to support disruptive digital technologies
7. Further investigate opportunities for dedicated financial instruments and dedicated advisory services for the CESEE region.

In this report, as shown in the figure below, the EIB also provided an interesting mapping of European Countries according to their level of digitisation enabling capacities, identifying:

- High enabling region cluster (1)
- Mid Enabling Region cluster (2)
- Modest enabling region cluster (3)

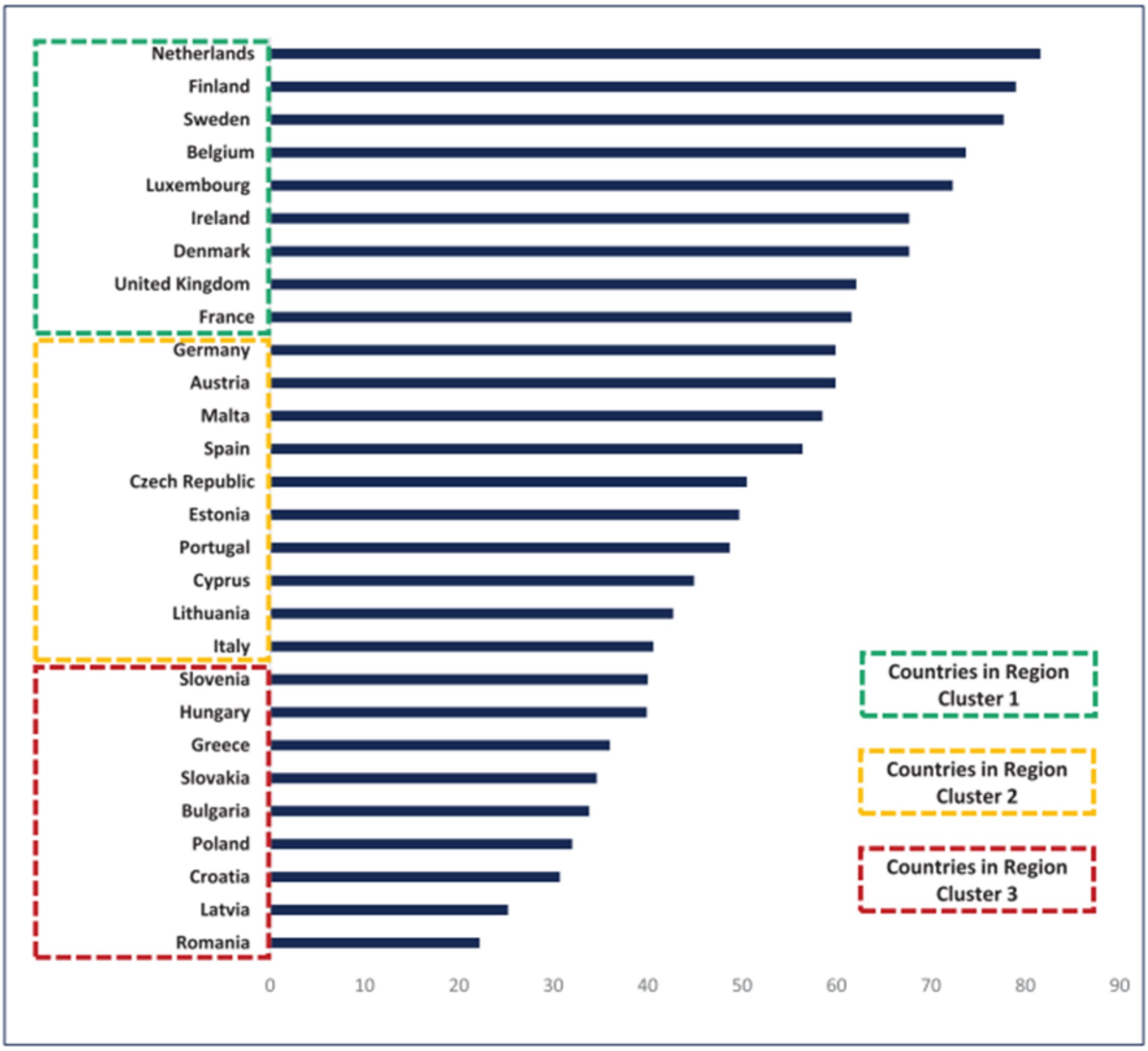


Figure 3: Segmentation of geographies into region clusters by Digital transformation Enablers' Index

Beyond the questions raised by this mapping and the methodology on which it has been built, it provides an interesting picture of the landscape at a starting point and will thus provide an interesting tool to evaluate the impact the DIHs and EDIHs will have in the future digitalisation of European industries. It is also obviously a very interesting tool to identify specific needs and help the European DIHs and EDIHs community to design specific programme to address them.

2.1.2.2 European Investment Fund (EIF)

As a fund of funds, the EIF is investing in private investment funds to leverage on public money. This is typically a European institution operating on the public-private co-investment principle. The EIF is supporting EU objectives while generating a high return to their shareholders.

For a fund to be successful, the governance is key. This means that the Lead partner of the fund with whom the EIF co-invest has to be independent from the limited partners investing in that fund. Furthermore, during our interview with EIF representatives, we learnt that EIF has also already invested in acceleration program but this is not in their priorities to work further on this kind of program.

The challenging task of EIF is to be able to ensure a high level of RoI while addressing European Commission challenges i.e. twinning digitalisation and the Green New Deal. As far as EIF is concerned, this relies especially on an adequate regulatory framework to incentivize Impact investment and on a strong Impact investment policy to pave the way of new funding schemes. Cyril Gouiffès, Head of Social Impact Investment at the EIF highlighted how important it is to make sure that all European territories are part of the impact movement and not only the major and wealthiest markets. He also stressed that limited partners are ready for this disruptive trend. Investing in ESG (Economic, Social, Governance) has moved from a nice-to-have fringe section of the investment space to a must-have. Investors no longer just want to generate financial performance. They are perfectly aware that technology alone will not be able to create a more inclusive society, but that it can play a very important role in providing some socially disruptive and positive solutions.

2.2 Challenges to support SMEs in their digitization

2.2.1 Lessons learned from the interactive workshops between innovative companies and potential investors

From the various interactions that we've organised between innovative companies and potential funders or partners supporting them in their strategy to access to funding, we can highlight some key success factors the DIHs and EDIHs communities will have to work on.

- **The huge diversity in the financial needs of the companies**

  DIHs and EDIHs are expected to support different types of companies in their digitization strategy: early stage and innovative companies as well as more mature and rather low-tech SMEs. These huge variety and heterogeneity in companies' profiles represent an additional challenge for DIHs and EDIHs in terms of supporting accessibility to private equity or debt financing.

- **The remaining geographical disparities in Europe concerning access to private equity investment**

  There are obviously some private investment ecosystems that are more developed and more mature than others in Europe. The countries where we can see the more mature DIHs and future EDIHs ecosystems are also the countries where private investors are more likely to invest. According to the EIF VC survey 2021, Germany, the UK and France remained the 3 most promising countries for VC investment in the next 12 month.

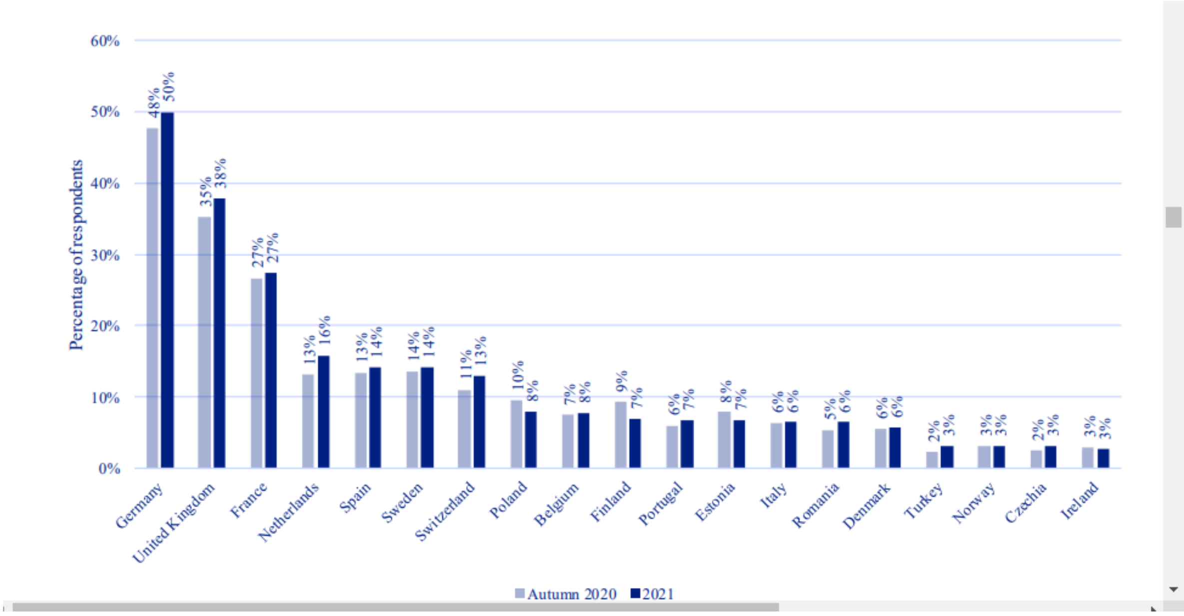


Figure 4: Most promising countries for VC investments in the next 12 month – EIF VC Survey 2021

There may be a bias in those data as the respondents to the survey are also located and investing mainly in the same countries – (i.e. UK, Germany, Netherlands and France). However, this highlights, if need be, the importance to facilitate pan-European collaboration on this challenge of access to private investment.

- **The difficulty in all Europe to access to Debt financing**

Debt financing is the alternative to equity financing for companies looking for funds to grow their business but who don't want to sell shares. Debt financing include bank loans and means you must pay the money back, plus interest. In debt financing, the loan is secured or collateralized with the assets of the company taking the loan. Unsecured loans mainly apply for large and established companies. The company has to generate revenues to reimburse in the defined timing and present assets for the loan to be secured. It is a classical bank financing mode. Access to debt financing does not seems to be easier than access to private equity. And this is also why the European Commission has developed various tools among which InvestEU and Innov'Fin which will be explored later on this deliverable.

2.2.2 National/local banks participating to the InvestEU network

InvestEU is a program developed by the European Commission to support investment, innovation and job creation in Europe. It is composed of 3 elements:

- Invest EU Fund;
- InvestEu Advisory Hub;
- InvestEU Portal.

The priorities of InvestEU are the **Green New Deal and the digital transformation**.

The DIHNET team had wo type of interactions with InvestEU (and Innov'Fin):

- In the framework of application experiments developed in Innovations Actions, a series of contacts have been taken with various national contact points to discuss a few business cases looking for loans.
- A general information workshop was organised by BLUMORPHO during the INPHO venture Summit with InvestEU representatives to explain to start-ups how to get in touch with those local banks.

The feedback we received during the workshops organised with innovative companies were mainly highlighting the difficult the companies were facing to obtain the loans they would have need to finance their growth. The main reason identified was that the eligibility criteria used by the banks were not in line with their own maturity. There was a clear need for further improvement of the process and tools allowing private banks to better support highly innovative companies. **DIHs and EDIHs could have an interesting role** to developed here as a "trusted third party", working in coordination with or as support to bank experts to accompany them in the assessment of the relevance of the project.

Besides this pan-European network of banks expected to support local innovations, the InvestEU Fund is expected to mobilise more than €372 billion of public and private investment through an EU budget guarantee of €26.2 billion that backs the investment of financial partners such as the European Investment Bank (EIB) Group and others. This should be identified as a potential tool also for EDIHs members or clients. The InvestEU Fund targets economically viable projects in areas where there are market failures or investment gaps and places strong emphasis on social investment and skills. The InvestEU Fund will share the same objectives as already existing instruments such as COSME and InnovFin but will be able to boost investments even further. As the InvestEU financing can be combined with EU grants so it should be considered by the DIHs when exploring potential financial sources for the companies they are supporting.

2.2.3 Private investment

The landscape of private investment is segmented depending on companies' maturity in terms of revenues generation, resources, and needs. We usually consider 3 main categories:

- Private equity
  Private equity simply shares (equity or securities) in a company that is not listed on the stock market. The 3 main private equity players are:
  - business angels (BA);
  - venture capital (VCs);
  - corporate venture capital (CVCs).
- Debt
  Deeptech companies generating revenues and companies looking for support in their growth and digital transformation are not always interested in private equity financing. Debt financing is also an interesting financing source. The European Commission is supporting the access to new financial products for innovative companies. Various national initiatives are doing so but, as the traditional funding partners of companies, private banks are also expected to support the digital transformation of the European industry.

- Crowdfunding
  Crowdfunding has become an alternative financing source~~s~~ for many companies in the course of the last 10 to 15 years. We have explored to which extent those actors could support the European digital transformation.

2.2.3.1 Private Equity

The European private equity landscape has been quickly evolving also during the last years in order to bridge the gap between the European market and the American and Asian ones and in order to address the challenge of innovation and digital transformation in Europe. The main lessons learned from the interviews and that we want to highlight here are the following:

- Private investors will not invest in DIHs themselves, but they are definitely the right interlocutors to support growth strategies and, by collaborating closely with DIHs, can contribute to support the emergence of champions that will strengthen the whole ecosystem.

- New collaboration schemes have been set-up at the European and national level between private funds and public funding authorities to maximize public investment by combining it to private investment. Those concepts of co-funding schemes seemed very promising and worth encouraging.

2.2.3.2 Who are the private investors and how do they work?

To put it short, a private equity investor provides capital to companies with high growth potential in exchange for an equity stake. Private investors realize profits from their equity investment when companies are acquired. Private equity investors, business angels, corporate venture capitalists and venture capitalists invest in different types of companies, invest different amounts of money, and claim different amounts of equity in the companies in which they invest.

Basically, what they do and aim at is:

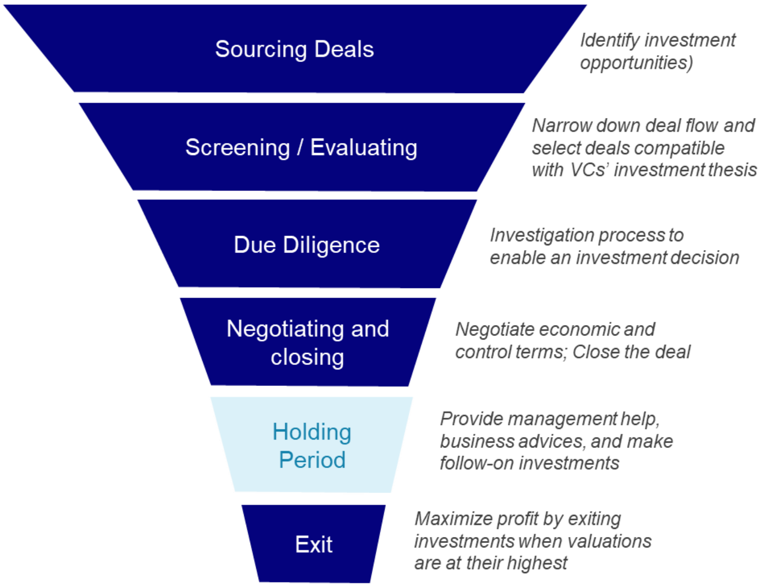
- Raising money from Limited Partners;
- Spending time on sourcing high-quality deals and gaining access to the best start-ups;
- Evaluating and select investments;
- Negotiating and working out the details in the term sheet;
- Supporting startups in their development.

To have a better idea of how private investors can or should work with the DIH and EDIH community, it is important to have in mind the different investment stage as defined by the private investment community.

- **Seed:** Funding provided before the investee company has started mass production/distribution with the aim to complete research, product definition or product design, also including market tests and creating prototypes. This funding will not be used to start mass production/distribution.
- **Start-up**: Funding provided to companies, once the product or service is fully developed, to start mass production/distribution and to cover initial marketing. Companies may be in the

process of being set up or may have been in business for a shorter time, but have not sold their product commercially yet. The destination of the capital would be mostly to cover capital expenditures and initial working capital. It concerns round table named Series A or B.
- **Later-stage financing**: Financing provided for an operating company, which may or may not be profitable. Late-stage venture tends to be financing into companies already backed by VCs. Typically, in C or D rounds.
- **Growth**: A type of private equity investment (often a minority investment) in relatively mature companies that are looking for primary capital to expand and improve operations or enter new markets to accelerate the growth of the business.

Those 4 investment stages are the most relevant to go further in our analysis of the expected DIHs & EDIHs/private investors interactions.



The VC investment process aims at minimising risk associated with investing in startups by better understanding and evaluate the product, technology, market business model and team.

It is important to know that VCs usually receive around 1000 business plans a year, too often companies with "solutions looking for a problem", i.e. very technology focused, with a lack of market vision and without a real growth potential.

On the opposite, it is also important to keep in mind that this is not because a company is not fitting a VC's expectations that this is not a good company. Investors have their own investment thesis which is the framework in which they also have their own challenge: find the good company, with the good team and generate relevant track record and RoI.

2.2.3.3 Private investors don't have a "techno-push" approach but invest in promising companies and profitable businesses

After this brief introduction, it may be stating the obvious for some of us however it needs to be reminded:

- Investors are not investing in technology but on the ability of a given technology to bring a strong differentiation and to generate profit on markets they know well.
- They will not invest in DIHs or EDIH themselves but will benefit from a better knowledge of the ecosystem and contribute to reinforce it.

When working with private investors, it is important to keep in mind that, whatever the level of maturity of the company and the amount of investment they invest in, private equity stakeholders have common objectives: buying shares of promising companies presenting ability to lead their market. They will assess exit opportunity as soon as assessing the investment opportunity.

What is different from an investor to another is that they will have different scope of intervention depending on the maturity level of the companies and the markets they are targeting. Business Angels are the first investors in the investment cycle. They are working with companies in their early development stage. Business angels financing is very interesting for start-ups in their early stage, but it might be a challenge to handle the investment board and take the right decision for the next steps. Venture Capital and Corporate Venture Capital are entering later into the game when companies present proof of viability with working demonstrators, first customers and demonstrated market traction.

This means that for DIHs and future EDIHs, the challenge is not only to work on the whole innovation value chain but also to manage a complex private equity ecosystem to answer the needs of companies they are supporting.

2.2.3.4 Key trends in private investment

Considering the missions of DIHs and EDIHs, there two major points that have to be highlighted here.

- **The lack of hardware focused investors**

As highlighted by the EIF VC Survey 2021[1] published a few weeks ago, European VCs have identified three promising sectors in the near future: healthcare and Life science, digitisation of business and processes, and sustainability (greener energy and climate change -related investment). However, whatever the most promising sectors is, what is really missing currently in Europe is investors ready to invest in hardware technologies although they are key enabling technologies for all the other applications.

- **The market traction of impact investing in Europe.**

the objectives of the European Green Deal won't be reach if we are not able to twin the digital and green transformation of our economies. This means that DIHs and future EDIHs have to take this sustainability challenge of smart technologies into account.

Once a year, BLUMORPHO is organising the IMPACT WEEK during which private investors and corporate leaders meet innovative companies *to create a positive impact and building a more resilient and sustainable future through deep technologies and new business models*". More and more investors are in line with the Green Deal strategy of the European Commission and really committed to make sure the digital transformation enables and supports the green transition. The concept of "**impact investing**" is gaining in importance in the investment world to drive more investments towards companies aiming at creating a positive societal or environmental impact.

[1] https://www.eif.org/news_centre/publications/EIF_Working_Paper_2021_74.htm

Both the challenge of financing the transition and mobilising research and innovation to tackle climate and environment crisis impact requires that the DIHs and private investors work together in this direction.

2.2.4 Crowdfunding

Crowdfunding is the process of raising many small amounts of money (funding) from a large number of people (crowd), especially via the Internet, to finance a business.

On the principle, this type of funding could address any field of application, depending on its ability to attract "crowd". Biotech companies have been able to raise crowdfunding by introducing the motivation of their research and the expected impact for the society. Most of crowdfunding platforms are addressing consumer goods that Innovators are ready to have first in hands. They are pre buying products. The financing makes possible to produce them.

The funding raised depends on the target defined by the company looking to raise money. It can vary from 50k€ to Millions, but more frequently it is between 100 to 200k€.

There are three **main** types of crowdfunding:

- the reward crowdfunding: entrepreneurs presell a product or service to launch a business concept without incurring debt or equity/shares. It is the most frequent crowdfunding scheme.
- the equity crowdfunding: the investor receives shares of a company, usually in its early stages, in exchange for the money pledged.
- the lending crowdfunding: this scheme is based on a loan.

Contact have been taken with various Crowdfunding platforms in several European countries to invite them to participate to a Smart Anything Everywhere and Fed4SAE event in January 2021. The objective was to invite them to present their activities to innovative companies looking for support. It was quite interesting to see how those platforms, although considered as disruptive actors in the financial sectors, where not really addressing disruptive innovative companies. It has been quite challenging for the DIHNET and SAE team to identify European crowdfunding platforms that were not focusing on "traditional" industry trying to find some alternative funding solutions to face the economic crisis resulting from the Covid19. Taking due account of this specific pandemic context, we can say that till now, but for some small exceptions with high consumer traction potential, the DeepTech market is not considered as a growth market for those actors.

2.2.5 Local initiative to reinforce access to private investment for SMEs and start-ups

In the scope of our search, we have identified 2 local initiatives presenting interesting results to facilitate access to private investment for local SMEs and start-ups.

- **The strength of the Smart Specialization: the Odense specific case**

The European Smart Specialisation strategy contributes to attract private investment in regions offering attractive ecosystem to grow European champions and develop local economy.

One key example of the benefit smart specialisation can bring is illustrated by the case of Odense who became an emblematic city of robotics.

Back in the 1980's, the Odense Steel Shipyard had a major importance in the city with around 6000 employees. It started to compete with Asia and decided to have a strong focus on Robots, drones, health tech & data centers. Nowadays, more than 133 companies are operating in Odense ecosystem focusing on robotics and industrial automation gathering nearly 4000 employees.

This shift has been possible thanks to key elements:

- A strong ecosystem of research organisations (Danmarks Tekniske Universitet Odense)
- A strong positioning and thematic focus on Robotics
- A success story in the targeted technical area with **Universal robot** (exit: nearly 310 M€)
- Accelerators and incubators which provide the ecosystem with interesting pipelines
- A strong regional support providing financial and structural incentives.

Based on its track record, Odense city had successfully built a collaboration with Chrysalix Venture, a private investment fund with strong activities in Industrie 4.0 with activities in Canada and Europe. In attracting, Chrysalix Venture, Odense city is supporting access to investment for local companies.

- **A new type of regional investment fund of private co-investment: the interesting case of Normandie Participation.**

Smart Specialisation is interesting but can not be applied in all regions and can not cover all the needs of European SME.

In the scope of our action, we have met with a very interesting and quite investment scheme, Normandie Participations Fund, created in 2015 in the Normandy Region in France.

This fund has been launched to fill the investment gap identified in Normandy region. It is based on a consultation operated by the Region towards local SMEs and entrepreneurs.

This regional investment fund is a very disruptive and efficient tool to support the development of innovative companies in the region. Its specificity is to be 100% based on public money but operated as a private investment fund with objectives in terms of Return on Investment. This fund is often the anchor investor that permits to attract additional funding. It can only operate by attracting additional private funding. It is different from classical regional investment fund.

This investment tool has demonstrated very attractive results in generating a X4 multiple of private investment: 50M€ public money has generated 200M€ private investment to invest in companies locally.

2.3 The sustainability challenge of the innovation management structure themselves: building on co-investment strategies

Interviewing various DIH and future EDIHs or partners in running Innovation Actions, it appears that the problem of sustainability is a challenge for all the organisations that have been relying exclusively or mainly on public money. To tackle this challenge, many organisations in Europe have developed public/private collaboration processes and investments. This process can be challenging. We will here mention only a few national or local examples explaining how difficult it is to design the appropriate business models to reach sustainability.

2.3.1 Digital Catapult in UK

When the UK government launched the Digital Catapult initiative in 2011, the objective was to reach sustainability within 5 or 8 years. Despite the value delivered by the Catapult centers, the transition did not happen and lead to an important reboot of the organisation. One of the objectives was to achieve the financing model of the three thirds: one third of the budget being funded by the state, one third by the private sector and the last third by collaborative/competitive research programmes. After 10 years, 10 Catapult centres have reached this business model and are active to bridge the gap between research and commercial application helping innovative companies to grow. They can congratulate themselves for having developed more than 5108 academic collaborations, 14 750 industrial collaborations and having completed more than 1218 international projects[2] supporting nearly 8400 SMEs.

2.3.2 French SATT & IRT: building sustainability

- **SATT: Technology transfer & Innovation acceleration companies**

The same challenge happened in France with the concept of *Société d'Accélération de Transfert de Technologie (SATT)* created between 2010 & 2012 in the framework of the *Programme d'Investissement d'Avenir* (PIA). A total of 14 regional structures had been created then with the aim to support the public research technology transfer. Each structure operates according to its specific environment, the missions and business model can differ from one company to the other. The companies are private structures from their organisational standpoint but have been fully funded by National public funding. The first objective given to the SATT was to reach sustainability within 10 years. The largest companies have been created with up to 70M€ of funding and operate today with a staff of up to 60-70 employees. In July 2017, a report to the public Senate was giving a status on the highlights and lowlights of the system[3]. The rapport was especially pointing out that the revenue generated since 2010 from the technology transfer was not exceeding 15M€ in total which was considered low compared to the 215M€ invested.

Despite this challenge of generation of revenues from royalties and reaching strong RoI, three years later, the SATT are still considered as key organisations to support and develop the French DeepTech ecosystem. As for January 2021, they can proud themselves of having reached 3088 patents, contributed to the creation of 575 start-ups which have raised more than 806M€.

[2] Home - The Catapult Network

[3] The document in French can be read here: http://www.senat.fr/rap/r16-683/r16-683_mono.html .

- **French Institutes of Technology and Institutes for Energy Transition: public/private co-investment in innovation transfer & cross regional collaborations**

The French Institutes of Technology association gathers 8 IRT (Institut de Recherche Technologique) dedicated to specific topic deemed as strategic by the French government (like Microelectronique, robotic, material, aeronautic...) and 7 Institutes for Energy transition. The IRT/ITE are expected to develop public/private co-investments projects, combining industrial and public research know-how in applicative research projects. Their mission is to foster the emergence of disruptive innovations answering industrial challenges. To make this possible, their strategy is to design proof of concept and to transfer it to the industry. Their aim is to make the best out of solutions already developed by SME/Start-up and to combine them with the IRT/ITE know-how and ability to design new solutions out of this collaboration process. The proof of concept thus developed is expected to be directly transfer to the industrial partner as in-house innovation. It also happens that a dedicated company is created to commercialise the solution.

At the end of 2018, they had reached the following achievements:

- performed 730 technology transfer projects for 1103M€ of budget – among which 64,4M€ of European funds;
- developed nearly 900 patents & software and 115 technological platforms;
- build an ecosystem of 1300 industrial partners and 640 academics.

Collaboration between Institutes of technology have also been successfully developed, paving the way of cross-fertilisation and territorial synergies. Those collaborations have demonstrated, if needed, the strength of mutualisation and partnership.

Vincent Marcatté, current president of the French Institute Technologies association but also Director of the Open Innovation Labs of Orange, considers it is not realistic to expect innovation supporting tools to reach complete financial autonomy from public funding. He pointed out the example of IRT/ITE which were originally expected to work on an equal shared part of public and private funding. They are now progressively aligning their strategy on the one developed by Fraunhofer institutes in Germany or Catapult centres in UK, the *three thirds* financing model: one third of public funding, one third of private funding, the last third relying on collaborative/competitive research programmes. Considering that SMEs and Midcaps don't usually have enough human and financial resources by themselves to develop innovation, public authorities have to find a way to support them in this process, either with fiscal incentives or by supporting structures that will accompany them, or both. In this sense, he considers that the development of DIHs and EDIH is a great opportunity to build stronger strategies on the long term in order to reach companies which are still too far from digital innovation.

2.3.3 Smart Industry Fieldlabs in The Netherlands

Considering that securing a position in the vanguard of industrial digitisation is crucial for jobs, future economic growth and industry, the Dutch government launched the Smart Industry programme in 2014. The objective was to gather the regional Field labs already developed all over the countries under one initiative and to label it in order to set-up a "practical environment within which smart industry solutions are developed, tested and implemented, and that allows people to learn how to apply them."

In 2017, 32 Fieldlabs had been launched and 178 million euros had already been invested:

- 82 M€ came from private investments.
- 47 M€ from Dutch government;
- 22 M€ from the EU;
- 27 M€ from the Regions.

In order to consolidate those first steps, the Smart Industry implementation agenda 2018-2021 had been defined so that in 2021, the Netherlands has developed the best and most flexible digitally connected production network in Europe.

The agenda was 5 action lines which are much aligned with the objectives defined by the European Commission for the DIH and future EDIHs: (1) Getting business started, (2) Field Labs, (3) Knowledge, (4) Skills (5) Digital environment.

The Smart Industry initiative was then relying on different sources of public and private funding and on ERDF funds. The aim of the agenda 2018-2021 was to reach a more balance investment share (50/50) meaning that the share of the private investment has to increase as the initiative progresses. At the time the agenda was defined, it was still not sure how the initiative would be synergetic with the development of DIH and EDIHs.

In 2021, TNO has published a report monitoring this initiative gathering more than 40 active Fieldlabs in 2020[4]. The report highlighted that the continuous development of new Fieldlabs and the growth of investment done in those activities confirm that those Fieldlabs are effective tools to support the digital transformation of the Dutch industry. The report also analysed the complementarity between FieldLabs and Smart Industry hubs, pointing out that Fieldlabs are predominantly dealing with the target group of frontrunners when the hubs are expecting to work with the broader target group of companies with digitisation issues.

As shown in the table below, end of 2020, the total amount of resources allocated to FieldLabs was 367 M€, of which 148 M€ were coming from private funds. However, the report also pointed out that for the 1st time since 2015, the investment in FieldLabs has shown a small decrease compared to the previous year, which is partly due to COVID but which can also be due to more competition between various initiatives. Despite the impact of the COVID, the ecosystem can proud itself of having created 929 new jobs, working with more than 680 companies and having produced 32 spin-off companies.

[4] TNO 2021 R10638 Monitoring Smart Industry fieldlabs en hubs 2020.

Table 1: Cumulative expenditure in Fieldlabs including commitments for 2021 and later.

Bron	**Meur**				**%**			
	n=31	*n=35*	*n=41*	*n=45*				
	2017	**2018**	**2019**	**2020**	**2017**	**2018**	**2019**	**2020**
EU	22	27	34	40	12	11	11	11
State	29	65	83	88	16	27	27	24
Region	27	29	47	56	15	12	15	15
Private	82	96	117	148	46	40	37	40
RTO	18	24	34	34	10	10	11	9
Total	**178**	**240**	**314**	**367**	**100**	**100**	**100**	**100**

However, despite a continuous investment increase and despite the objective of increasing the part of private funding, the report also shows that the repartition of the various sources of funding had not radically evolved during the last years and that the acquisition of new financial resources is still a challenge for the continuity of the Fieldlabs.

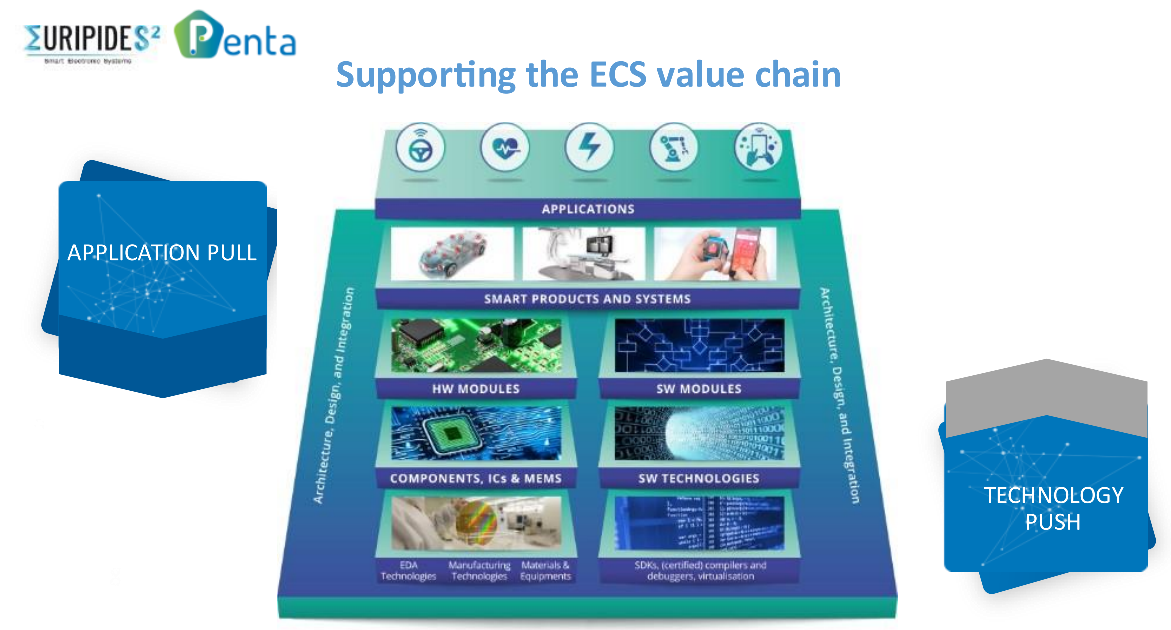
2.3.4 Eureka Clusters, PENTA-EURIPIDES[2]

We had interviewed Rémy Renaudin, previous EURIPIDEs Director and French EUREKA National Coordinator and Peter Connock, PENTA Director at AENEAS.

Eureka is an inter-governmental initiative organizing international cooperation in R&D and innovation between 45 European countries. The program is not led by the European Commission but by the Members States. Each Country funds its partners/companies and national funding rules apply.

The Eureka Clusters are delivering labels to industrial project proposals which must include a minimum of 2 companies coming from 2 different Eureka countries. Once the label is granted, the companies must then contact their respective funding authorities to receive funding. The label does not guarantee the funding and it happens that consortia are not fully funded for collaborative projects.

The global aim of those calls for funding are to support the Electronic Components and Systems value chain in Europe.



Source: ECS-SRA

The key elements for a successful proposal are:

1- A good balance of the funding among Eureka countries supporting the various clusters.
2- An appropriate allocation of an envelope in the targeted country.
3- The availability of the public funding in time.
4- A strong alignment of each country development strategy with the technical agenda of the cluster.
5- Research organizations must have a minor contribution in the work program.

The running Innovations Actions (IAs) or DIHs could identified potential matchmaking at the end of their application experiments within the various clusters’ opportunities. However, this requires a good transversal knowledge and an effective networking outside their communities to allow the perfect match between SMES and technology providers - be they another SMEs, an RTO or a DIHs.

3 Recommendations

There is indubitably an already active European Community committed to supporting innovative SMEs in their access to funding solutions. The EEN and Start-Up Europe networks are key players in this regard as well as the European Innovation Council. The H2020 programme and its predecessors have been huge tools to support the emergence of innovative companies. However, despite this vivid community, the need for a better "access to private funding" is still pressing and has been clearly identified as one of the 4 pillars that should structure the EDIHs activities.

Taking into account the ambitious and highly transformative politics and strategies promoted by the European Commission, it is still a challenge to develop & strengthen public/private co-investments schemes.

During the DIHNET final event, a session has been specially organised to explore the challenges of access to private investments and the need to bridge public funding to private investment. The DIHs and future EDIHS participating to the event have clearly identified two main challenges related to the need for private investors and DIHs and EDIHS to better know each other.

The following recommendations aims at setting the scene of new & reinforce collaboration schemes between the two communities in Europe.

3.1 Reinforce collaboration with private investors to support the emergence of bankable companies

Collaborations of (E)DIHs with EEN and Start-Up Europe will support (E)DIHs members in reaching private investment. However, this collaboration is necessary but not sufficient. Even after an Innovation Action experiment, the companies are often still very early stage and need further support in their development. And to do so, public funding may not be the only way to go forward. To create the fertile environment where European champions will emerge, it is important to go further and to create the conditions so that (E)DIHs and private investors better know each other. Both sides can benefit from sharing their views when they are assessing the strength and development's perspective of their respective ecosystems.

The main challenges to support the emergence of champions are:

- the selection of the most promising companies that will be further accelerated and supported.
- the preparation and education of the local entrepreneurs to get them ready to match with private investors' expectations.
- to support the growth of a company beyond the local ecosystem and the local network.

To tackle those challenges, DIHs and EDIHs have a key role to play first in the inception phase of innovative projects when EEN and Start-up Europe are working at a more later stage. They also have a role to play in order to prevent the innovative companies to adopt a too "technology push" approach but encourage them to be customer centric in adopting as well also social and impact positioning.

3.2 Learning from each other

We strongly recommend closer collaboration between DIHs/ EDIHs and private investors. It will contribute to a double way learning from private investment to EDIHs and vice versa.

- **From Private investment to EDIH to better align the innovation support policies developed at local, national and European level with the needs and expectations of the market.**

Business transformation and innovation is not only a question of technology, market and funding. It is also a question of mindset and the ability to "align the dots" to generate new value. It is indeed very important that (E)DIHs and private investors better know each other to better work together. Obviously private investors will not invest in (E)DIHs but in companies supported by EDIHs if they fit their expectations. In addition, private investors are always assessing the strength of the ecosystem to invest in a company. By developing stronger links with EDIHs, private investors will have a better vision of the ecosystems the innovative companies contacting them are evolving in. The strength of the (E)DIHs network will thus be reinforced by the setting-up of such interactions with private investors and the private investors themselves may optimize their assessment of promising companies through such cooperation

Interaction between (E)DIHs and private investors will also contribute to share analysis on how to operate the positive transformation of the green & digital transformation with a strong leadership in Europe. Encouraging collaboration between (E)DIHs and private investors will have 3 major impacts:

- An alignment of the Key Strategic European topics with policy and private investment cross fertilization.
- An alignment on how to support the emergence of new European champions. Indeed, when it deals with disruptive approach, those new champions will start as start-up. In a virtuous cycle, those new champions will also contribute to SMEs and public organization transformation.
- A better convergence on a joint vision of value creation within a Single European Market. Successful private investors are also operating as VCs hub investment to overcome the challenge of the European fragmented market. So we do see a convergence between the EDIHs pan-European collaboration strategy and the strategy developed by VCs representatives to build a strong European community.

- **From EDIH to Private Investment to address the challenge of the remaining investment gaps in Europe**

Even if private investors don't invest in technology, they need to be inspired and aware of the last key trends in this domain. Through their collaboration with DIHs and EDIHs, they will have a better knowledge of cutting-edge technologies developed in Europe.

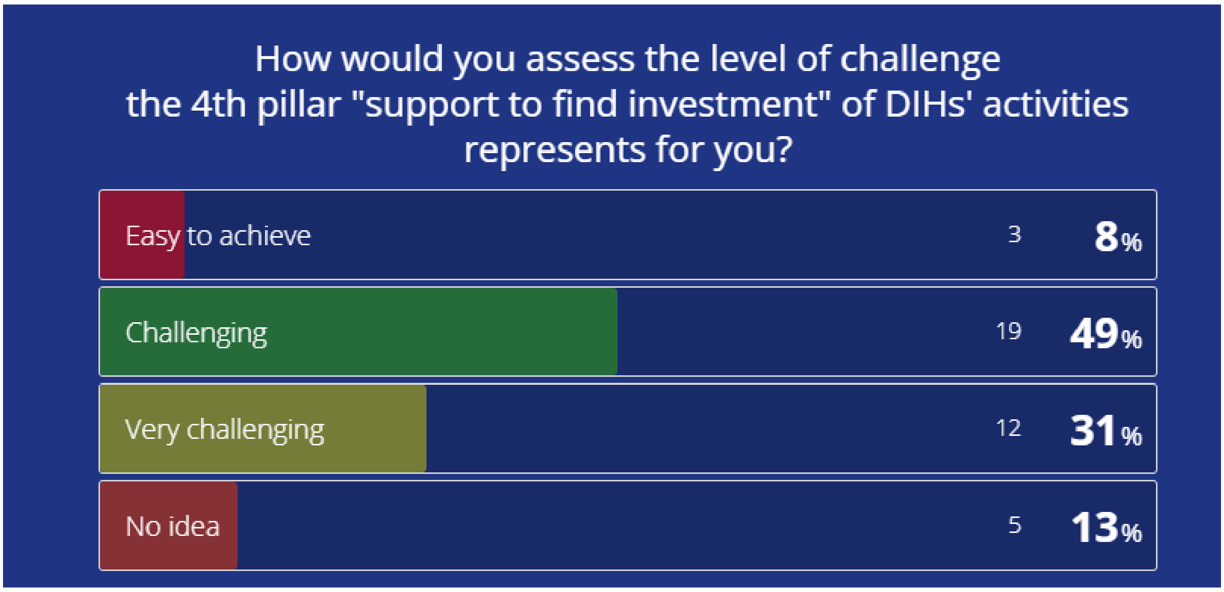
This knowledge should also answer to the urgent need to better value the investment potential in hardware businesses to fill the investment gap in this domain.

Beyond this privileged access to cutting-edge technologies opportunity, to build a closer relationship with DIHs and EDIHs will be key to develop a win/win situation where investment in champions generates also new opportunities for the whole ecosystem.

However, as explained previously, the challenges of each stakeholders are so specific that encouraging collaboration will help but will not solve all the challenges especially in regions with lack of private investment or competencies in private investment.

3.3 Support the emergence of new innovative investment scheme in specific regions in Europe to bridge the gap from public to private funding

That's the reason why we should also encourage new scheme to further support DIHs and EDIHs in this task "support to find investment". As expressed by the participant to the DIHNET final event during which this question has been debated, 80% of them find it challenging or very challenging.



The example of Normandie Participation successfully attracting a x4 private investment factor on public money to invest in promising companies is is promising. This mean that by investing 40 M€ of public money, they have been able to engage 200M€ of private investment. Such new scheme developed to address regional challenge to fill the private investment gap is worth being further experimented. It should be further implemented with adaptation to specificity of each Europan region. Acting in complement to EDIHs and DIHs, It could contribute to reinforce the EDIH role in the regional innovation funding ecosystem in levering in synergies between those different innovation support schemes.

3.4 Turning objectives into results with KPIs

The mission of EDIHs and DIHs in support to find investment is a big and complex challenge to address but it will be key for the success of the European DIH strategy.

The work undertaken in the scope of the DIHNET project permits to highlight recommendation based first on (1) reinforcing links to generate a better mutual knowledge of missions and activities to (2) build collaborations. It could lead also to (3) setting up new regional investment fund designed to further collaborate with EDIHs and DIHs to attract private investment.

Consequently, we strongly suggest integrating tangible KPIs on EU collaborations of EDIHs with private investors at Pan European level. Such KPIs will contribute to make those two ecosystems working closely in a win-win approach since they address the same objectives but with different approaches. It will contribute to build next level cooperation as well as supporting the sustainability of actions driven by the European Commission.

Such KPIs should help monitoring the progress of collaboration. It could be based on:

- Number of interactions organized between EDIHs/DIHs and private investors
- Number of joint actions undertaken to reach mutual knowledge
- Number of supported companies introduced and discussed
- Number of companies supported by EDIH/DIH benefiting from private investment

4 Conclusion

This deliverable aims at exploring how the European Digital Innovation Hubs can build a sustainable and effective ecosystem gathering all innovation funding partners including private investors to support the green and digital transformation of European economies and companies.

In this new development phase that the European Commission has initiated with the Digital Europe Programme, no doubt that the priority is to support the EDIHs Pan-European collaborations. Many EDIHs candidates are contacting each other to sign MoU which is already a great achievement. Hopefully, the setting-up of the Digital Transformation Accelerator will also further support EDIHs in engaging and structuring such collaborations to also foster interactions between European SMEs.

However, we would like to strengthen the recommendations to not limit the concept of pan-European collaborations among EDIHs or DIHs only. We deeply recommend encouraging the creation of stronger links between (E)DIHs and private investors.

We know it is not an easy task, but it will be crucial to leverage on the European Commission efforts to support transformation of SMEs and public organisations with a broader uptake of digital technologies.

- Encouraging interactions between (E)DIHs and private players is crucial especially in the current context when business transformation is accelerating due to Covid19. The pandemic situation has put a huge pression on European and International value chains highlighting the benefit of digitalised manufactures, platforms and logistic chains. The need for an acceleration of the digitisation has never seem so obvious and the remaining barriers and preventions so publicly and widely addressed. As an example, let's just mention the overall benefit that can be expected from the development of home office to ensure the continuation of activities which has been tested in real time or digital health solutions that were already available before, but which have been critically acclaimed. The consensus is growing on the need to accelerate the digitisation of European industry and private investors are ready to play their role in this domain.
- The Covid19 crisis has emphasized or coincided with a massive awareness that it is also hight time we engage the green transition and that this will not be possible if we don't operate some radical changes in our business models, production processes and way of life. Although digitisation is part of the problem with an increasing energy consumption and the pressure it puts on certain components and value chains, digitisation is also obviously part of the solution with the huge opportunity it offers to rationalise our processes and make the best of the resources which scarcity has to be taken very seriously.
- Only a virtuous and active ecosystem between EDIHs and private investors will enable a good combination of the European Green deal and the Digital Europe program. The Green New deal is requesting that 35% of the EU's research funding is set aside for climate-friendly technologies and that a series of EU research "moonshots" focus on environmental objectives. The recovery plan requests that a third of the budget goes to digital transformation and enables digital technologies to build more resilient economies and communities. All those challenges are really demanding and too important to be tackled by one company, one region, or one country alone. It requires a strong partnership approach, at least at the European level if not at a wider scale.

- The debt challenge will also have an impact on the extent to which public funding will be able to support further innovation. Co-investment will be key to optimise the strength of both public and private money and to demonstrate the convergence and consistency of both vision of value creation.
- By learning to work closer together, the DIHs/EDIHs and private investors communities will foster the emergence of a strong European Digital and digitalised Industry and of strong European Digital Champions. Contribute to build strong European networks in all European countries where public and private funding players will join forces and develop interactions and collaborations must be considered as a key task for the DIHs/EDIHs community. New investment scheme should be considered to further support access to private financing in working in close collaboration with EDIHs and DIHs locally and at European level.