



Digital Innovation Hubs Working Group 1

Report from the Working Group Meeting on Access to Finance

Held on 21 February 2018 in Brussels, Belgium

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DG CONNECT

Disclaimer: The views expressed here are those of the workshop participants and do not necessarily represent the official view of the European Commission on the subject.

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Introduction

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The meeting brought together representatives of Digital Innovation Hubs (DIHs), who are part of the European Catalogue of DIHs, to discuss how to finance DIHs and how to improve access to finance for the digital transformation of SMEs.

This was the second of a series of the DIH Working Group meetings to take place in preparation for the next High-Level Governance meeting on the European Platform of National Initiatives on Digitising Industry with Commissioner Mariya Gabriel after summer 2018.

The day provided the opportunity for Digital Innovation Hubs to share experiences in relation to funding, business models, and support to SMEs in accessing finance to transform their business. A short session was also dedicated to the issue of State aid, in case of countries providing subsidies for Digital Innovation Hubs or SMEs.

The Workshop aimed, in part, to contribute to a study on the financing of DIHs and digitisation of SMEs launched recently by the InnovFin Advisory Service (IFA) of the European Investment Bank (EIB). The study will provide an overview of current conditions, trends and challenges related to the financing of programmes supporting the digitisation of SMEs in key sectors of the European economy. It will develop a set of policy relevant inputs and recommendations on how to set up financial instruments (such as a digitisation fund) at EU level with possible co-financing through national or regional schemes/contributors (such as EFSI platforms).

The Financing Landscape for Digital Innovation Hubs and SMEs

Digitisation – the adoption of digital technologies by industry and SMEs across all sectors – is critical for Europe to remain competitive in a global marketplace. As discussed at previous Working Group meetings, the digitisation of companies in Europe varies significantly by geography, sector, type and size of company. While 54% of large companies are highly digitised, only 17% of SMEs have successfully integrated digital technologies into their businesses. A number of challenges flow from this. On the one hand, Europe has to support start-ups and spinoffs with high growth potential. But it must also reach out to ‘the shoemakers’: i.e. the traditional ‘low-tech’ companies on which much of the European economy still depends.

The reasons companies are not investing in digital technologies are complex. Key features are:

- 1) **Knowledge gap within companies:** SMEs often lack awareness about the benefits of digitisation and knowledge about how to adopt digital technologies into their businesses.
- 2) **Knowledge gap within banks:** Banks may not understand sufficiently why a company from a traditional business sector would need to invest in digital technology, or what they aim to achieve. They may view such projects as too risky and be unwilling to finance intangible investments in software or skills development for which no collateral is offered.
- 3) **Bias within private sector investors:** Private investors (such as venture capitalists) tend to focus primarily on financing high-tech start-ups with high growth potential (so-called ‘unicorns’) rather than SMEs in traditional sectors aiming to digitise their business.
- 4) **Lack of dedicated schemes for digitisation:** At present there is no financial instrument at EU-level that is specifically dedicated to the digitisation of SMEs. Instead, firms have to compete within existing schemes designed to support innovation in products, processes and business models.

Successful digitisation programmes focus on providing an integrated set of products and services to SMEs including: (i) awareness raising activities; (ii) digital literacy programmes; (iii) knowledge transfer; (iv) advisory services; and (v) investments in digital technologies. Both the supply and demand sides of this equation need to be supported (a ‘Push and Pull approach’). There is a learning curve not just for companies but for financiers (banks and others) as well.

DIHs could play a key role in enabling firms to access market finance more easily through a ‘test before you invest’ approach. Firstly, the DIH would work with a client company to test digital innovations (for instance 3D printing) and identify how it could be applied successfully. If the company wishes to invest further, it could use the results to develop a realistic investment plan that it is able to take to the bank. Having results validated by independent experts would enable the bank to have greater confidence in the final outcome, and therefore make it more likely to lend. The fact that the hub was on hand to provide quality technical assistance would also make the project less risky. Essentially, the DIH would be underwriting the bank’s due diligence on the loan.

Good Practice Examples in Financing SMEs

A key focus of the InnovFin study is how to improve ‘the bankability’ of digitisation projects. Experience shows that an innovation-related project is made more bankable (or in other words, becomes potentially financeable by private investors) if the following elements are present:

- **A clear legal and governance structure.** This includes the management team, shareholders and any other relevant stakeholders (such as key commercial partners);
- **A robust business model.** This should include unique selling point and streams of revenues, nature of revenues (long term contracts or not, recurring clients), potential demand and key competitors, potential profitability;
- **A sustainable capital structure.** This should include major investment needs and funding sources (including equity, debt, and grants);
- **A well-developed business plan.** Encompassing aspects such as product and value proposition; business model, organisation & processes; market and competitor analysis; management team; opportunities & risks; and financial projections.

Recent project examples from the EIB-IFA’s own portfolio include:

- **The Digital Hub, Dublin – financing of office development for digital cluster in Ireland:** The EIB has part-financed new office facilities for The Digital Hub. Since its launch in 2003, it has become the largest cluster for digital companies in Ireland working across diverse technology and digital sectors. With total revenues of €2.8m, the Hub now accommodates around 90 companies, employing over 700 people in nine buildings. The Hub expects to double its office space within the next five years.
- **BBVA – dedicated lending for digitisation of SMEs in Spain:** In November 2017, EIB announced a €150m loan to the Spanish bank BBVA to finance SME investments related to innovation and digitisation. It is the first EIB operation in Spain in this field and includes funding for initiatives that enable SMEs to digitise their operations. SMEs and mid-caps (up to 3,000 employees) can obtain a loan up to 100% of the project costs (up to €25m) to fund investments in the latest technologies and modernise their processes and equipment, improving data management, web portals, business marketing, etc. The companies accessing this credit line will have the opportunity to benefit from the EIB’s favourable conditions, both in terms of maturity and interest rates.

- **Advice to a large RTO in setting up a new Digital Innovation Hub:** EIB-IFA was involved in advising a large RTO and its partners including research institutions and universities in setting up a new Digital Innovation Hub. The project involved the construction of three new buildings (extending the existing RTO campus) to bring together major research centres, universities, high-tech incubators, high growth start-ups and industry, to develop digital innovation projects in four strategic areas: (i) cybersecurity, (ii) AI, (iii) cyber physical systems and (iv) new manufacturing technologies. Key elements of the project included: clear business model based on renting space with anchor tenants; strong support from a well-established RTO, and local authorities; and clear links to the private sector and industry.

Among other approaches mentioned by participants was the Runway Model™ developed by the **Super IoT and AI Innovation Hub** in Oulu, Finland. From a cluster of more than 1000 firms, it has identified around 150 strong and differentiated companies interested in working on joint business cases for their products. With support from the Hub, partner companies work together for up to 18 months to develop a strong business case, placing a heavy emphasis on revenue and return on investment as the main KPIs. This approach has enabled a shift from large R&D projects to agile, efficient and small projects. Business ideas are able to leave the runway at any stage ('takeoff') and be taken quickly to market. Others stay on the runway and utilise the ecosystem's SME networks to enable strong offerings and attract global customers.

In the UK, the **Digital Catapult** offers a wide range of support for companies in accessing and commercialising digital solutions. One of these is its Pitstop events, held over the course of 1 to 1.5 days, which give innovators opportunities to pitch their ideas to potential customers and financial backers. At one of these events, KX Systems – a supplier of high-speed analytical tools for processing real-time and historical data – pitched to the semiconductor manufacturer SEAGATE, with whom it has subsequently developed a business relationship.

Business Models for Digital Innovation Hubs

A clear business model is fundamental to any business and is especially important in a partnership situation, such as a Digital Innovation Hub. It provides a shared language, showing all concerned how the business will create and capture value, and helping the partners to organise collaboratively to deliver that value.

DIHs offer a wide range of services, from awareness-raising and brokerage, to technical support in aspects such as R&D, concept development and prototyping, through to business-focused services to help companies bring their ideas to market (see DIH 2017 Working Group Report for details). In essence, DIHs support the whole innovation chain from ideation and proof of principle, to business startup, pilot production, to full market introduction and market expansion. In order to serve different types of customers with distinct services over varying timeframes, hubs need to follow a funnel approach. At the mouth of the funnel, activities may be generalised and should aim to take a general offering to a broad audience (Figure 1). As companies move through the funnel, the services offered by the hub become more focused and customised until at the most advanced level – market introduction and expansion – the service offering is entirely bespoke.

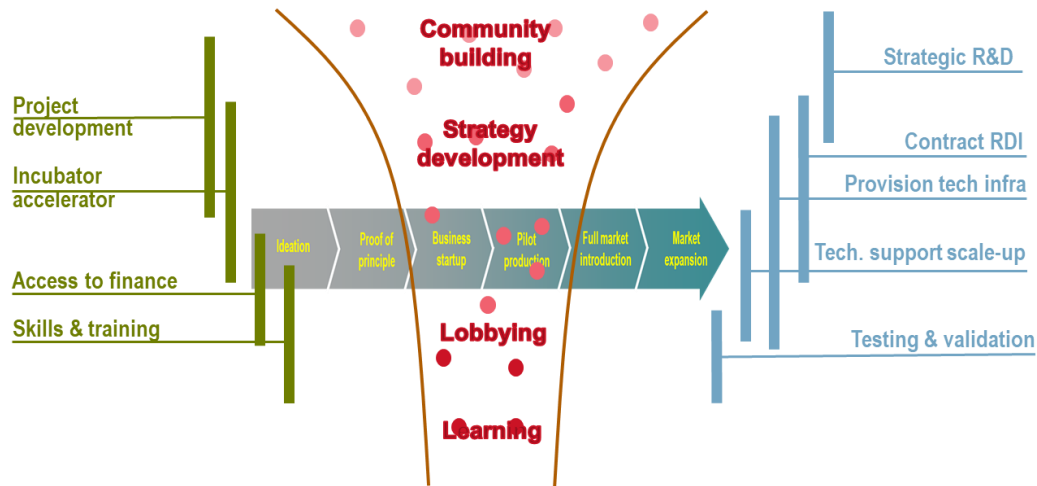


Figure 1: The DIH Business Funnel (courtesy of TNO)

The Sustainability Challenge

The challenge for DIHs is to build a sustainable business model around each of these services. This does not mean that each individual service has to make a profit: some will be profitable, whereas others – such as awareness raising and brokerage – may make a loss in commercial terms but will nevertheless be an essential part of the overall portfolio. There will be a difference between what companies are willing to pay for (either as clients or as suppliers) and what public agencies are willing to support through grants and other schemes. Furthermore, these conditions will change over time. Sustainability is a patchwork: hubs need to think from the outset how they will combine the different service lines and revenue streams in a way that is financially viable and also creates a credible business funnel for clients.

The Jožef Stefan Institute in Slovenia uses exactly this sort of funnel approach. As a Key Enabling Technologies Technology Center (KET TC) and Slovenian National Coordinator of the Enterprise Europe Network, it provides technical expertise to around 300 companies, as well as offering access to finance and other innovation support to a further 100. Services are graduated to address TRLs 1-8: in terms of funding, the sources range from public calls (typically TRLs 1-3), to proof of concept and seed funding (TRLs 3-6), to seed, venture capital and innovation vouchers (TRLs 6-8). One example is Plasmadis, a startup offering advanced plasma-coating technology, which has been funded through all of these stages by different means.

Like many DIHs, **VDTC**, which is part of Fraunhofer IFF, predominantly serves a regional market. Various different funding sources – regional, national, European and private – are being leveraged in order to finance its activities. Currently, it has more than 20 running ESIF-funded projects with regional companies, as well as a project under H2020. The emphasis throughout is on testbed and research infrastructure services.

ARIC, a Greek DIH, has numerous services and offerings. These include: theegg, an incubation, acceleration and co-working programme; ActInSpace, a creativity event targeted at students, engineers and entrepreneurs; and Fab Space 2.0, an open innovation environment for geodata-driven applications. Each service has been developed as a distinct proposition for a particular stakeholder group and has its own business model.

DIGITECH (Slovenia) and **CEA LETI** (France), too, follow a multi-funding approach, combining funding sources so as to exploit synergies and complementarities. DIGITECH is aiming to broaden its model by bringing in more revenue from both national and private sources.

CEA LETI – project coordinator of two European Projects (EuroCPS and the new FED4SAE) – set up a strong network to make the right match between needs and offers (use cases and technology), and on top of this includes innovation management. This shows companies how to implement strong business cases to reinforce their market position and to adopt a relevant business model for value creation (collaboration with Blumorpho). Within EuroCPS, CEA LETI runs SME Bootcamps, tailored coaching events to assist SMEs in developing the skills necessary to scale their businesses moving forward.

Building New Digital Innovation Hubs

Several of the presentations focused on the experiences of regions that are seeking to create new or additional Digital Innovation Hubs.

DIGIHALL is an initiative to create a DIH for the Paris region (Ile de France) under the region's Smart Industry plan. Led by CEA LIST (an RTO), it brings together ten partners plus other actors including investors. It is following a service platform approach that covers the whole innovation lifecycle built on top of an ecosystem with shared infrastructure. Funding is derived from various sources, including a new dedicated investment fund linked to the DIH. Success comes from having many partners, all of whom are prepared to invest.

In the Basque region, the **Basque Digital Innovation Hub (BDIH)** is being created through the integration of existing competence centres, research organisations and other partners. However, it is unlikely that all the necessary competences will be available locally and hence the BDIH will be seeking joint initiatives with hubs in other regions. A major challenge – already identified in the 2017 Working Group Report – is how to utilise dedicated regional funding within an inter-regional collaboration. Some form of Digital Innovation Scheme would be of great value here. BDIH is starting to define such a scheme that would create linkages between BDIH and other European hubs, as well as support reciprocal access between Basque SMEs and firms from other European regions. One issue to be addressed is how to dedicate regional funding to inter-regional beneficiaries: this is allowed for under the Treaties (Article 70 of ERDF), but there are no practical experiences to date. Also, how should potential competitors to regional companies be accommodated?

The Vanguard initiative has extensive experience of running regional manufacturing DIHs. Most recently, **Efficient and Sustainable Manufacturing** has been set up as one of a series of pilots. It comprises a network of 10 regional manufacturing DIHs that share the same methods, tools and KPIs. Each regional DIH must have at least one physical experimental facility, such as a Smart Factory Pilot Plant, and promote open standards and open platforms to implement industrial IoT and analytics solutions. The business model is funded through various means, with the public sector component ramping down sharply as services come closer to the market. Similar activities are being taken forward in the MIDIH Collaboration Platform, a DIH network offering a one-stop-shop for manufacturing SMEs to access technology, knowledge and business services under a H2020 Factories of the Future (FoF) project.

SmartEEs is a new European project offering dedicated support for companies in the field of organic and large area electronics. It will fund up to 20 application experiments that between them address four technology applications and ten market sectors. Companies will be eligible for up to €140k worth of support, comprised of €80k of direct services (technical and non-technical) and a €60k innovation voucher, to which they would be required to make a €25k in-kind contribution. The €60k innovation voucher component would be available also for supply chain activities with suppliers, customers or consultants. SmartEEs aims to link at least two of the application experiments with the Structural Funds and will share its experiences by opening a discussion with S3P – the EU's Smart

Specialisation Platforms initiative – on how to generalise the approach.¹ The project has a ten year time horizon, even though funding is only available for three. **SmartAgriHubs** is proposing to establish a similar EU-wide network within the agrifood supply chain.²

State Aid: What Is and Is Not Allowed

As Digital Innovation Hubs utilise public funding in delivering their activities, consideration has to be given to the State aid rules.

State aid and the conditions under which it may and may not be granted are defined under the Treaty. According to Article 107(1), State aid is:

“Any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.”

However, the Treaty (Article 107 (2) and (3)) leaves room for a number of policy objectives for which State aid can be considered compatible, such as RD&I. There are specific instances in which funding is not considered to be State, as well as instances of block exemption in which there is no need to notify for State aid clearance (although other requirements still apply). In the absence of a block exemption, State aid must be notified to the Commission and authorised before it is put into effect. The Commission would normally examine such cases under the 2014 Framework for State aid for research and development and innovation.

Further detail is provided in Annex 1.

Many DIH services rely on research infrastructures that are pursuing economic and non-economic activities. State aid rules apply only to economic activities. Cross-subsidisation of economic activities is avoided by separating the costs, revenues and financing of economic from non-economic activities.

A lot of regions are looking to support DIHs through the Structural Funds but complain that it can be difficult to maintain separate accounting systems and to determine the market price of the aid received. DG Regio and DG Competition are currently looking into this issue, as well as the funding of innovation infrastructures more generally, with a view to possibly improving the current rules. In addition, DG Competition has launched a wider study into State aid for research and innovation in the run up to FP9.

Summary and Conclusions

Access to finance has been identified as one of the key barriers to the digitisation of industry in Europe and the meeting provided a welcome opportunity for stakeholders to discuss the financing needs of Digital Innovation Hubs and SMEs. The knowledge gap on digitisation within the banking sector, the bias of private investors away from firms operating in traditional sectors, the lack of dedicated funding schemes for digitisation, and barriers to inter-regional innovation funding are all challenges needing to be addressed.

¹ See <http://s3platform.jrc.ec.europa.eu/s3-platform>

² SmartAgriHubs is currently a proposal that has been submitted under H2020 and will be subject to evaluation by independent experts in the usual way.

Aspects such as having a clear legal and governance structure, a robust business model, a sustainable capital structure, and a well-developed business plan all contribute to make innovation-related projects more bankable, and therefore more likely to attract private investment.

The presentations and breakout discussions showcased many models and examples of good practice in financing DIHs and their service portfolios through both public and private investment. What all of these DIHs have in common is that they offer multiple services, each one targeted at a specific audience and tailored to a specific part of the digitisation journey. In essence, the business model for DIHs has the characteristics of a multi-sided market – a platform that serves two or more distinct groups of customers that provide each other with network benefits. But what does it mean to be sustainable in this context and how can sustainability be achieved?

The Path to Sustainability

As the TNO presentation pointed out, sustainability involves the matching and balancing between two separate matrices. In one dimension, there is the service matrix: the set of services offered by the DIH to its (potential) client companies, that spans from awareness raising to hands-on market consultancy. On another axis is the funding matrix: the set of available funding schemes and routes through which the activities may be financed. **Each service offering needs to have an underlying revenue stream – whether public or private – and therefore its own business model for how it is to be delivered.** There will be a difference between what companies are willing to pay for (either as clients or as suppliers) and what public agencies are willing to support through grants and other schemes (Figure 2). Furthermore, these conditions will change over time.

Large enterprises	SMEs	Start-ups
Community building	Community building	Community building
Strategy development	Strategy development	Strategy development
Ecosystem learning	Ecosystem learning	Ecosystem learning
Project development	Project development	Project development
Lobbying	Lobbying	Lobbying
Strategic RDI	Strategic RDI	Strategic RDI
Contract research	Contract research	Contract research
Technical support on scale-up	Technical support on scale-up	Technical support on scale-up
Provision of tech infra	Provision of tech infra	Provision of tech infra
Testing and validation	Testing and validation	Testing and validation
Incubator/accelerator support	Incubator/accelerator support	Incubator/accelerator support
Access to finance	Access to finance	Access to finance
Skills and education	Skills and education	Skills and education

Figure 2: Needs and Willingness to Pay for Three Customer Groups (courtesy of TNO)³

Thus, **sustainability can be considered as an emergent property that arises from the summation of the viability of all of the DIH’s constituent services.** ‘Viability’ is not necessarily the same as ‘profitability’: some services (generally at the mouth of the service pipeline/funnel) will be loss leaders, whereas others (towards the neck of the funnel) should be highly profitable. Given the

³ Items in white signify the most attractive offerings; items struck through in red indicate offerings for which each customer group would be unwilling to pay.

multi-sided nature of the hub's activities, generalised services are essential to the overall offering even if they need to be subsidised, since they help activate potential clients and stimulate demand for downstream (revenue-generating) services. All DIHs, whether new or established, need to think about how to weave this patchwork: how will they combine the different service lines and revenue streams in a way that is financially viable and also creates a credible business funnel for clients?

In situations **where a DIH encompasses one or more Competence Centres (CCs)**, with a high technical orientation, then **the sustainability models of these two elements will be different**. The sustainability of the CC depends on its utilisation (asset-centric), whereas the DIH's sustainability depends on the number of innovations it helps to succeed. This is based on continuous human activity: the more matches, the more innovation, the better it is for the region. Thus, the number of matches should be considered as a key KPI for the DIH. From the perspective of the CC, the DIH is valuable if it brings in more innovating companies than the CC is able to organise by itself. Relationships with CCs within and beyond the region provide opportunities for a DIH to access new funding streams and/or grow revenues, including on a collaborative basis (Figure 3).

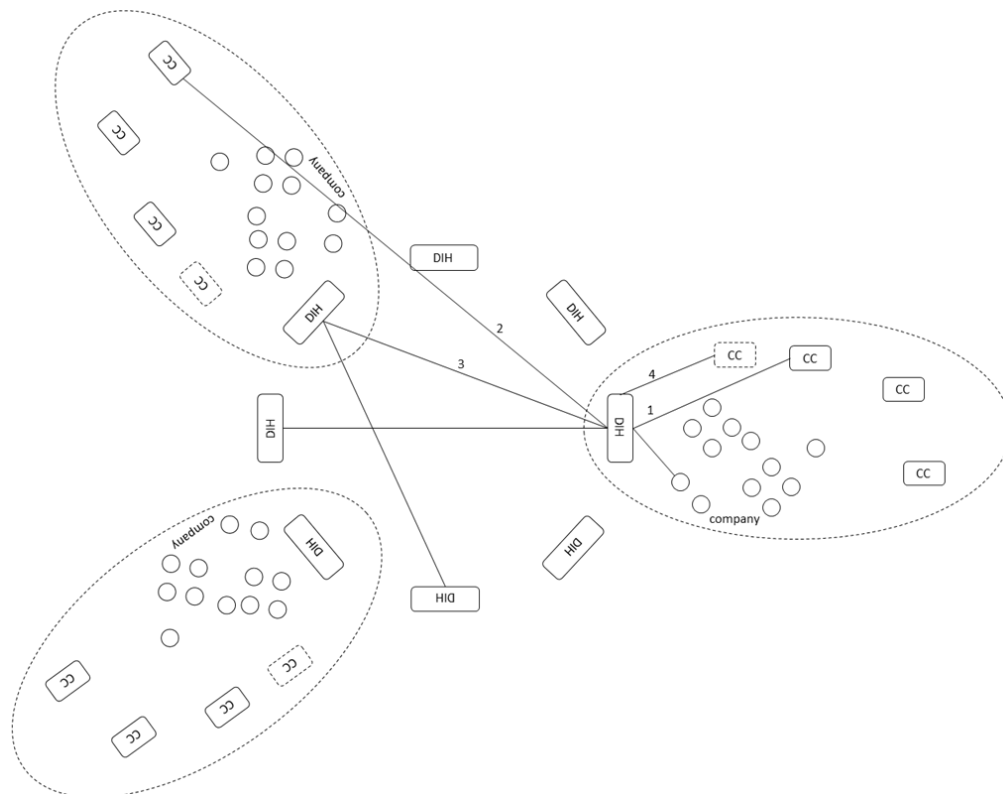


Figure 3: Value Relationships between DIHs and Competence Centres

Key: 1 = CC and DIH work together within their regional innovation ecosystem; 2 = DIH reaches out to CC outside the region where relevant competences not available locally; 3 = co-operation between DIHs to coordinate joint innovation services across regions; 4 = identified capability gap providing opportunity for a new CC. (Diagram developed by 'Breakout Group 3').

The sustainability parameters will also **vary according to the overall focus of the DIH model being followed – 'regional' vs 'sectoral'**. The latter is likely to be more technology focused, while the former is aiming mainly at the support of regional users of technologies. The two rely on different forms of knowledge flows: regionally-oriented hubs are serving primarily a regional audience, including facilitating access to knowledge from other regions and competence centres, whereas sectoral hubs are likely to have a strong inter-regional and/or international dimension.

Since the DIH performs essentially a **regional innovation development function**, it could be argued that its baseline costs should be covered regionally. There are several options of organising the required income. One is a prior (e.g. annual) contribution (cash or in-kind) from the CCs, or a cooperative of CCs or another regional development body, that could be dependent on performance and so provide an incentive to add value. Other types of funding could then be used to ramp-up the DIH. The financing of infrastructure is likely to remain a challenge and the costs can be at least partially covered by rents.

The management of the various funding layers is itself an element in overall success. Regional, national, European, international and private funding has to be finessed across the portfolio and managed over time so as to exploit the synergies and complementarities in each scheme's rules and conditions. There may be opportunities to leverage one funding stream against another or adopt collaborative funding. Recognising how to cascade funding across services and projects requires considerable skill and expertise. This whole area of **funding access and management could be a focus for DIHs to work together in skills development**.

Next Steps

Other issues highlighted by the meeting were:

- **Bring in banks as partners in the DIH ecosystem:** Banks featured relatively little in the discussion, which is perhaps indicative of the emphasis given to startups and scale-ups rather than traditional companies within DIHs at present. Banks need to be brought into the regional ecosystem so as to fill their knowledge gap about the digitisation agenda. There is a clear win-win situation here: by teaming up with hubs, banks would become more knowledgeable about the business cases being presented by SMEs, while hubs would be able to offer SMEs more secure routes to funding. Both aspects would help to reduce the (perceived) risks associated with digitisation projects.
- **Build links to private sector investors:** Hubs' downstream activities (i.e. those closest to market) provide natural opportunities for venture capital, business angel, corporate venturing and other investment funding. Increasingly, public funding agencies are also following this type of model. DIHs should develop a dialogue with investors with specific interests and track records in their sector or region. In time, these relationships could lead to the setting up of dedicated funds (as is the case at DIGIHALL in Paris, for example). Specific attention should be given to the needs of scale-ups (as opposed to start-ups), where corporate venture capital rather than private equity funds may be a better choice. As one workshop participant noted: "If you can mix the spark of a startup with the wisdom of a relevant enterprise, then you often have a winner."
- **Improve inter-regional funding mechanisms:** DIHs can spur innovation across regions, but at present there is an acute lack of funding for innovation that spans multiple regions that are not geographically connected (transnational). In the absence of dedicated instruments, DIHs are left to coordinate their own regional schemes as best they can. Innovation vouchers that firms exchange for third party services have been shown to be a popular and successful form of funding innovation. Intra-project vouchers, such as those offered by SmartEEs, are relatively straightforward, whereas vouchers for use outside of a specific project (as sought by BDIH) are more difficult, especially in the inter-regional context. This is a highly complex area that hubs are trying to navigate by themselves at present: a clear policy steer from the Commission and/or Member States is needed on this and on the more general issue of inter-regional innovation funding.

- **Scope opportunities for dedicated digitisation funds:** Digitisation sits at a difficult place funding wise. Projects are generally considered to be too close to the market to qualify as research and development, but not close enough to the market to qualify for ‘regular’ business investment. In addition, the sheer scale of the issue, which touches virtually every SME in every sector, further exacerbates the funding challenge. In the absence of tailored funds, firms are forced to fall back on general innovation programmes to finance their digitisation efforts, while also having to be aware of State aid conditions. There are clear opportunities for dedicated digitisation funds at European, national and regional level that address the specificities of the digitisation challenge. The experiences of the EIB-IFA and its current study into this issue will provide an important baseline here. A mapping of the existing funding instruments applicable to the various phases of operations and types of activities could also be beneficial.
- **Consider new funding instrument in the next Framework Programme:** It is clear that a major shift in the nature of innovation is underway. In digital technology, as elsewhere, user-oriented experimentation and testing (in the form of ‘application experiments’, ‘showcases’, ‘lighthouses’, ‘pilots’) are seen as an essential means of mainstreaming innovation. Such an approach reduces risk and allows companies to build a robust business case before investing in new technology. Within the DEI, Working Group 2 has called for a major escalation in the level of testbed and demonstrator-type activities related to digitisation and associated calls for proposals are currently open. SmartEEs, for example with its ten-year time horizon, is indicative of a new model of trans-European hub networks. But existing instruments are not well suited to this type of project. For the next FP a new funding instrument should be considered that allows European, national and other funds to be blended together seamlessly. This could be used to fund certain hubs in their entirety and/or specific aspects such as lighthouses and application experiments.

Annex 1: State Aid – A Summary

Based on the presentation of Irina Orsich, DG CONNECT, Unit F4

Definition of State Aid

Article 107(1) of the Treaty of the European Union defines State aid as:

“Any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market.”

Instances in which State aid is deemed not to apply are if there is:

- No economic activity: for example, research infrastructure not meant to be commercially exploited
- No potential effect on trade between Member States: purely local impact
- No economic advantage at the level of the owner/developer
- No economic advantage at the level of the operator
- Research infrastructure acting as a mere intermediary
- No economic advantage at the level of the user

Economic activities of research organisations and research infrastructure

Research organisations and research infrastructures need to distinguish between **non-economic activities** (point 19):

- Primary activities: Public education organised within the national educational system; independent R&D; wide dissemination of research results on a non-exclusive and non-discriminatory basis;
- Knowledge transfer conducted by the research organisation/infrastructure or jointly with/on behalf of other such entities; all profits reinvested in primary activities.

And ‘**economic activities**’: e.g. renting out equipment or laboratories to undertakings, R&D services, contract research for industry. Cross-subsidisation of economic activities is avoided by separating the costs, revenues and financing of economic from non-economic activities. Where there is no clear separation, then the entire research organisation and its funding are subject to State aid rules.

If a research organisation/infrastructure is both publicly and privately funded, then State aid is present if public funding allocated to the relevant entity for a specific accounting period exceeds the costs of non-economic activities incurred in that period (point 20 – footnote 22).

Ancillary economic activities (point 20) are not subject to State aid rules if: they are directly related to and necessary for the operation of the RO/RI; **or** intrinsically linked to RO/RI main non-economic use. They must be limited in scope, consuming exactly the same inputs as non-economic activities and allocated capacity is $\leq 20\%$ of relevant entity's overall annual capacity. Otherwise, there could be a claw-back of excessive aid resulting from a higher proportion of economic activities in comparison with *ex-ante* estimations.

There is no State aid to an RO/RI as an 'intermediary' if: any advantage through public funding is quantifiable and demonstrable; **and** is fully passed on to the final recipients (e.g. price-reduction);

and no further advantage for intermediary - selected with open tender procedure, or customers are entitled to acquire services from any intermediary.

General Block Exemption Regulation

The General Block Exemption Regulation (GBER) specifies a number of instances in which there is no need to notify for state aid clearance, although other requirements could apply.

Article 26 GBER allows investment aid up to €20 million for research infrastructures (economic activities), representing 50% of the eligible costs (investment costs in tangible and intangible assets).

Article 27 GBER allows investment and operating aid (max. 10 years) up to €7.5 million per innovation cluster, representing maximum of 50 % of the eligible cost (running & marketing of cluster, management of facilities, organisation of training & conferences & networking and transnational cooperation).

Article 28 GBER allows innovation aid for SMEs up to EUR 5 million per undertaking and project/50% of the eligible costs for:

- obtaining, validating and defending patents and other intangible assets,
- secondment of personnel from a research and knowledge-dissemination organisations or from a large enterprises (new function).
- costs for innovation advisory and support services can be granted up to 100%/max. €200k per undertaking within any three year period (the so-called *de minimis* condition).

Under this last bullet, ‘innovation advisory services’ means consultancy, assistance and training in the fields of knowledge transfer, acquisition, protection and exploitation of intangible assets, use of standards and regulations embedding them; and ‘innovation support services’ means the provision of office space, data banks, libraries, market research, laboratories, quality labelling, testing and certification for the purpose of developing more effective products, processes or services.

Article 29 GBER allows aid for process and organisational innovation up to 50% for SMEs and 15% for large companies up to €7.5m per undertaking per project for: equipment, research, knowledge and patents, additional overheads and other operating costs. Here, ‘organisational innovation’ means the implementation of a new organisational method and ‘process innovation’ means the implementation of a new or significantly improved production or delivery method (including significant changes in techniques, equipment or software).

Article 14 of the GBER relates to regional investment aid.

In the absence of a block exemption, a State aid or State aid scheme must be notified to the Commission and authorised before it is put into effect. The Commission would normally examine such cases under the 2014 Framework for State aid for research and development and innovation.

Annex 2: Agenda

09.15-10.00: Welcome coffee and registration

10.00-10.30: Setting the scene: Access to finance for Digital Innovation Hubs and SMEs – objectives & expectations

*Anne-Marie Sassen, European Commission (5') - **presentation***

*Soren Gigler and Alberto Casorati, European Investment Bank (EIB) (15') - **presentation***

10.30-11.30: Session 1 – Financing Digital Innovation Hubs and business models

(Individual presentations of 7' and 20' discussion)

University of Oulu (FI), Jukka Riekkii - *presentation*

Experience from the Super IoT and AI Innovation Hub

Digital Catapult (UK), Marie Claire Tonna - *presentation*

The business model of Digital Catapult in the UK

CEA LIST (FR), Gregorio Ameyugo - *presentation*

DIGIHALL – Building links at local, regional, national and European level to finance DIH

Politecnico di Milano (IT), Sergio Gusmeroli - *presentation*

Regional Manufacturing DIHs in the Vanguard Initiative Efficient and Sustainable Manufacturing pilot

TNO (NL), Maurits Butter - *presentation*

Business models for DIHs

Athena Research and Innovation Center (EL), Jorge Sanchez - *presentation*

Financing and Business models of a DIH in Greece

Discussion

11.30-12:15: Session 2 – How to avoid state aid when publicly financing DIHs and SMEs

European Commission, Irina Orsich - *presentation*

Introduction to State Aid

Discussion

12.15-13.15: Networking lunch

13.15-14.30: Session 2 – Challenges for SMEs to access finance

(Individual presentations of 7' and 30' discussion)

Jožef Stefan Institute (SI), Robert Blatnik - *presentation*

How do we offer SMEs access to finance?

SPRI (ES), Cristina Oyon - *presentation*

Innovation vouchers for accessing the Basque DIH in an interregional cooperative scheme

CEA Technologies, (FR), Pierre-Damien Berger - *presentation*

Cascade funding: an agile finance tool within a full ecosystem/DIH dedicated to SME. What are the results in the long term?

Fraunhofer Institute for Factory Operation and Automation IFF, (DE), Christian Blobner - *presentation*

Financing-mix for the VDTC Digital Innovation Hub

TCS – Toolmakers Cluster of Slovenia, (SI), Anton Sagadin - *presentation*

DIGITECH SI-East Slovenia; Consulting SMEs on Funding Opportunities, experience with Eurostars

Wageningen University & Research, (NL), Sjaak Wolfert - *presentation*

SmartAgriHubs - Connecting the dots to unleash the innovation potential for digital transformation of the European agri-food sector

SmartEEs (FR), Jerome Gavillet - *presentation*

DIH dedicated to Organic and Large Area Electronics (OLAEs)

14.30-15.00: Coffee break

15.00-16.30: Session 4 – Break out in smaller groups to discuss topics of common interest

During the day all participants will be able to fill in post-its with themes they would like to discuss further with the other participants. In this session we will break out in smaller groups that discuss these topics. The objective will be that the participants learn from each other and everyone can go home with one or two ideas on how to improve the business model of their hub or how they can help SMEs find finance for their digital transformation.

16.30-17.00: Reporting back from the break-out groups of Session 4 & Closing