ENHANCING THE SOFT POWER OF INNOVATION AGENCIES IN EUROPE:

THE ROLE OF SERVICES, COMPETENCIES AND SKILLS

TAFTIE Taskforce on the 'soft power' of innovation agencies

Research Report Findings and Conclusions

May 2019









ABOUT THIS REPORT

This report shares the findings and conclusions of research conducted as part of a TAFTIE Taskforce on the 'soft power' of innovation agencies, carried out between September 2017 and April 2019. The purpose of the Taskforce has been to develop a clear picture of the non-financial support services provided by innovation agencies, and to better understand the competencies and skills required to deliver them. As part of a series of outputs from the Taskforce, this report focuses on the findings of a bespoke survey that was designed and implemented with TAFTIE members in 2018, as well as a series of qualitative interviews, workshops and focus groups conducted in 2018 and 2019.

The innovation agencies included in the study are:

ANI (Portugal); Innovation Fund Serbia;

Bpifrance (France); Innovation Norway;

Business Finland; ISERD Israel;

CDTI (Spain); Luxinnovation (Luxembourg);

ENEA (Italy); MITA (Lithuania);

Enterprise Estonia; NKFIH (Hungary);

Enterprise Ireland; RVO (Netherlands);

FFG (Austria); PtJ Juelich (Germany);

VLAIO (Belgium); SPIRIT Slovenia;

Hamag-Bicro (Croatia); TACR (Czech Republic);

Innosuisse (Switzerland); TTGV (Turkey);

Innovate UK; Vinnova (Sweden).



About the authors



alex.glennie@nesta.org.uk

Alex Glennie is a Principal Researcher at Nesta, a UK-based innovation foundation. She leads international research projects examining new trends and practices in innovation, with a particular focus on inclusive innovation policies. She is a lead author of Nesta's comparative international study of innovation agencies around the world, and a core member of the team delivering the Global Innovation Policy Accelerator, a collaborative development programme for innovation policy leaders.



ana.ponte@ani.pt

Ana Ponte coordinates the International Promotion Unit at ANI, the National Innovation Agency in Portugal, where she is responsible for designing and implementing the Agency's strategy for international cooperation. She has a long experience in decision support on science and innovation policies, both at national and European levels, as well as in stakeholders' engagement around international collaborative initiatives in these domains.



nadine.teles@ani.pt

Nadine Teles works for the International Promotion Unit at ANI, the National Innovation Agency in Portugal. She supports and represents ANI in European and international forums, particularly within TAFTIE, the European Association of Innovation Agencies, and manages European R&D projects for collaborative exchange of best practices and improvement of innovation policies.

ACKNOWLEDGEMENTS

This report was produced by ANI Portugal and Nesta, but is based on information shared by TAFTIE members and a wider group of stakeholders. We are extremely grateful to every individual who has taken part in workshop and focus group discussions, responded to the survey, and provided additional information, feedback and constructive suggestions on the development of the research findings and conclusions.

All errors remain the authors' own.

Executive Summary

Innovation agencies are often thought of as funding bodies, supporting innovation, entrepreneurship and growth primarily through the provision of grants or other types of financial support. Yet in recent years, many have taken on a much wider remit, offering a range of advisory and support services and frequently playing a role in driving forward ambitious societal missions or international collaborations.

These agencies come in many shapes and sizes, and their missions often evolve quickly in response to changing priorities at the national and international levels. This makes it difficult to identify an 'ideal' model or set of services that innovation agencies should provide. However, there are a range of roles that innovation agencies are well-suited to play. Most sit in the intersection between government, the research community, investors, and innovative businesses or individuals, which makes them important brokers within their respective innovation ecosystems. Their funding can be used to address barriers in the market or system that hold back innovation and growth, and to build up key sectors or areas that are important for economic prosperity and social development. They often have an opportunity to be highly responsive to the needs of those they support, and to experiment with new and different ways of encouraging innovation.

As well as providing 'hard' support in the form of funding, innovation agencies can also deploy significant 'soft power' — including knowledge about how to develop innovative ideas and businesses that can be shared with innovators, wide networks that enable them to broker useful connections and partnerships and training and skills development. Yet much less is known about the role and impact of this kind of power, and the nonfinancial forms of support that innovation agencies offer. That is why it is the focus of this TAFTIE Taskforce.

The recent preparation of the Horizon Europe framework programme has launched a debate on how to improve support for innovators in a way that takes account of their individual needs and responds to the specific challenges that they face. In 2018, EU Commissioner for Research, Science and Innovation, Carlos Moedas, acknowledged that this was something that the EU and other funders had struggled with. He asserted that Horizon Europe would "look at innovation the other way around - bottom up. We will be close to (the entrepreneurs), we will mentor them, we'll be more than the money, we'll be about following up what they do, about giving them data that they need". 1

Innovation agencies across Europe have a key role to play in achieving this vision, given their proximity to innovators and their experience of supporting them directly. The enhanced focus on the innovator has led them to reflect on how to deliver more impactful advisory and support services, not only by extending their portfolios of activities, but also by strengthening and customising existing services that are provided as part of financial support instruments. The survey and qualitative research conducted for this Taskforce therefore aims to capture the status of innovation agencies' portfolios and capabilities with respect to the provision of advisory and support services, to help them think about how ready they are to take on this role.

Key findings and conclusions

Better defining the perimeter of action:

The first challenge that innovation agencies face relates to their position within the innovation ecosystem and their relations with other stakeholders, which defines their 'perimeter of action' when it comes to providing advisory and support services. It is important for agencies to think about which services they are best placed to deliver themselves, given their available resources and capabilities, and which ones should be delivered by others partners. At present, it is unclear how far this perimeter should extend, especially given the absence of good evaluation data on the impact of different services and delivery models.

Addressing this challenge will require more collaboration between innovation agencies as a means of sharing experiences and best practices, as well as more regular, purposeful dialogue with other key stakeholders, such as research organisations and funding agencies, competence centres and 'multiplier' networks (such as incubators, interface centres, and competitiveness clusters), investors, private consultants and other service providers, as well as innovators themselves.

Moving to an innovator-centric approach:

Our research has highlighted a shift taking place in many agencies from a 'programme' or 'project-centric' approach

¹For more details, access <u>here</u>

to innovation support towards an 'innovator-centric' model. This looks at the needs and capabilities of beneficiaries in a more holistic way and then services are tailored accordingly, rather than focusing on individual projects. Appropriately segmenting their clients is a key part of this, allowing agencies to focus more of their resources on supporting fewer entities with high potential growth, while also providing more general services in an efficient (and increasingly digital) way.

However, for other agencies in the group, this shift is being hampered by the fact their funding for advisory and support services comes mostly from European Structural Funds (ESIF), thereby giving them less control over the design and delivery of these services and limiting their ability to embed them effectively within other financial instruments.

This creates the risk of a diverging capacity for innovation support in Europe. In view of the desire for national innovation agencies to provide more decentralised support for innovators that will complement rather than duplicate European funding programmes, this suggests that European innovation agencies need more freedom to experiment with and adapt their approach to providing advisory and support services, whether this is funded by their own budgets or other sources. It also suggests that innovation agencies should think about how they resource these activities, and if there is a case to be made for dedicating more internal budget to them.

Developing new skills and capabilities:

The appraisal of qualifications, professional backgrounds and competencies of innovation agencies' staff reveals a need for the shift towards a more innovator-centric approach to be accompanied by a diversification of skills and professional backgrounds. While some agencies - including some that have moved further along this path - have a more balanced and diversified set of skills and qualifications among their staff, in several of them the majority of employees have a specific profile - mostly postgraduates coming from social science backgrounds (although in a few agencies there are exceptions due to the thematic missions that they pursue). This 'typical' profile is generally relevant for competent management of general programmes, but the expertise needed for delivering more adaptive and tailored advisory services potentially lies in other backgrounds, experiences and skills, the reason why an innovator-centric approach calls for complementary competencies to this profile.

While innovation agencies recognise the need to upgrade and diversify their internal skills and competencies, the lack of documentation and impact measurement of advisory and support services complicates efforts to accurately identify the kind of people that should be sought for delivering them. The upgrading of competences will not ensure per se an impactful delivery of support without a proper structuring in the way services are delivered, which reinforces the need for further formalisation of these services and a clarification of an appropriate action perimeter for innovation agencies.

Recommendations for TAFTIE

The findings and conclusions of this research suggest that there would be great value in continuing and developing this area of work further within TAFTIE. Recommendations for next steps include:

- Creating structured opportunities for peer learning and the sharing of experiences and best practices between innovation agencies in order to formalise and document this domain of activities. This would also help agencies to evaluate the impacts of advisory and support services based on both quantitative and qualitative evidence, make a stronger case for allocating budget to these services, and identify the skills and competencies required to deliver them.
- Conducting a detailed mapping and appraisal of means and resources across TAFTIE's member agencies for the provision of advisory and support services, in order to integrate this more effectively with future support that will be provided through Horizon Europe and the European Innovation Council.
- 3. Increasing opportunities for dialogue and learning with and from other stakeholders. This process was initiated through the series of events held as part of the Taskforce, which proved that benefits can be multiplied when these kinds of discussion events are organised among larger groups of TAFTIE member agencies.
- 4. Consolidating the knowledge around the capabilities and interests of innovation agencies across Europe, while promoting and maintaining a constructive long-term dialogue with the European Commission for identifying opportunities and removing obstacles for providing more joined up and impactful support for innovators across Europe.

INTRODUCTION

1.1. Background and rationale for this report

In past and current European models of innovation support, there has been a strong focus on the funding component of framework programmes. National innovation agencies have developed their own activities around similar and complementary objectives, providing different types of financial support to a range of innovators. Alongside this, most European innovation agencies have nominated National Contact Points (NCPs)² and Enterprise Europe Network (EEN) national officers³, and have integrated a number of Coordination and Support Actions (CSAs)⁴, to provide additional non-financial support services as a complement to the funding schemes available.

Dialogue with innovation policymakers that fed into the development of this Taskforce suggested that non-financial support activities and services provided by innovation agencies are seen as fairly top down and generalist in nature, and do not follow a long-term strategy with clearly identified goals or measurable indicators. However, available data and anecdotal evidence indicates that they can be hugely important for innovators in terms of developing their capabilities, brokering partnerships and providing access to additional sources of finance. It is therefore critical for innovation agencies to develop their understanding and practices around the delivery of impactful non-financial services that can increase the effectiveness of public spending on research and innovation (R&I).

When helping innovators at all stages of experience to access non-financial support opportunities, it is innovation agencies that are responsible for identifying the needs of their national or regional communities of innovators, and for diversifying and tailoring services to meet regional, national and local requirements. The European Commission sees this complementary expertise and set of services as a valuable asset for the new Horizon Europe programme and the European Innovation Council that will sit within it⁵. Innovation agencies will be much better placed than European institutions to understand local contexts, and provide more tailored advisory and support services to the innovators they support. As such, a more accurate appraisal of the value of these support services will also help innovation agencies to prepare themselves for the new roles they may be expected to play in the future landscape of innovation support in Europe.

The establishment of NCPs and EEN officers came from

a recognition at the European level of the importance of advisory and support services and the need to strengthen these activities. The resulting support to innovators has had the added benefit of increasing knowledge on companies and innovators and their specific needs. However, although NCPs and EEN officers are already providing a comprehensive set of advisory and support services to companies and innovators in most of the national innovation agencies across Europe, they follow relatively general and pre-established procedures and routines with limited adaptations or flexibility allowed. This suggests that there may be a fragmented coverage of the needs of innovators and a top-down attitude towards supporting innovation, at European as well as at national levels.

At present, the support provided is always dependent on the investment each innovation agency decides to make in order to offer non-financial services to their beneficiaries. However, Horizon Europe and the EIC may require a more formalised, comprehensive and continuous set of non-financial support instruments, as well as a different internal organisation of innovation agencies, in order for them to deliver a more diversified and personalised set of services that can effectively help companies and innovators access national, European and international sources of funding.

²NCPs are national structures established and financed by governments of the EU member-states and states associated to the EU Framework Programme for Research and Innovation, that give personalised support to applicants to this programme. For more details, access **here**.

³The EEN Network was established (and is co-funded) by the European Commission in 2008. It joins together more than 600 member organisations worldwide to provide close support to businesses that want to grow internationally. For more details, access here.

⁴These are actions that cover not the research itself, but the coordination and networking of projects, programmes and policies within the EU Framework Programme for Research and Innovation. For more details, access here.

⁵The European Innovation Council brings together the parts of Horizon 2020 that provide funding, advice and networking opportunities for startups, scale-ups and researchers at the cutting edge of innovation.

For more details, access here.

1.2. Objectives and purpose

The 'soft power' Taskforce was established by TAFTIE to test some of these assumptions and gather new evidence on the non-financial advisory and support services currently provided by innovation agencies.

The research had the following objectives:

- To understand the role of advisory and support services in the strategy and performance of innovation agencies in Europe and what competencies were needed to deliver that support;
- To anticipate how these services might evolve in the future, taking into consideration the current needs and the perception that agencies have of their importance;
- To explore how much should be invested in these types of services and who should perform them.

As there is no one 'ideal' way an innovation agency should be structured – since this depends on the inner characteristics and development stage of the national innovation system that it serves – the Taskforce did not intend to develop a single model for agencies to use in the organisation and delivery of their advisory and support services. The aim was instead to analyse the wide range of advisory and support services provided, as well as the correspondent competencies and soft skills needed, acknowledging that they may be organised and structured in a number of different ways. Different models are explored in case studies throughout the report.

The Taskforce offers a number of clear benefits for innovation agencies, the TAFTIE network, and the European Commission:

- It provides an up-to-date comparative picture of the current profiles of TAFTIE member agencies, and where they sit within their respective innovation ecosystems;
- It enables individual agencies to think about the advisory and support services they currently provide, take inspiration from the approach of their counterparts in other countries and regions, and help them start planning for the services that they should prioritise or develop further;
- It supports innovation agencies when thinking about the capabilities and skills they currently have and may need to recruit for in the future to be able to provide impactful

support for their beneficiaries;

 It is a useful input for the current discussions and planning relating to the EIC and the innovation ecosystems elements of Horizon Europe, namely to provide evidence on the preparedness of innovation agencies for the challenges and opportunities arising from the new framework programme that will be launched in 2021.

1.3. Methodology and timeline

At the heart of the Taskforce is a bespoke survey, designed to gather comparable data from across TAFTIE members. It maps the advisory and support services provided by innovation agencies across Europe, and identifies the evidence and knowledge gaps where further research needs to be conducted. Additional qualitative requests for information and focus group discussions with a selected number of individuals from across the TAFTIE agencies were then carried out to deepen the emerging conclusions provided by the responses to the initial survey⁶.

The initial survey was divided into three parts:

- The first part asked questions about the organisation's status, profile, main activities, beneficiaries and approach to assessment;
- The second part asked questions about the range of advisory and support services provided by innovation agencies;
- The third part asked about the background, experience and soft skills of innovation agency employees.

The survey was sent to all TAFTIE member agencies in July 2018 and responses were gathered from 24 agencies by September 2018. Following analysis of these data, additional questions were sent to surveyed agencies, including requests for case studies illustrating different approaches and practices. Feedback from the TAFTIE Board and agencies was sought at different points in the process, including Taskforce meetings in Lisbon, Luxembourg and Bled.

⁶See Annex 2 - Questionnaire

The results presented in this final survey report are also the result of two interactive sessions co-organised by ANI and NESTA in Boston (June 2018) and Bled (November 2018), that joined together several international and European stakeholders, respectively, including the World Bank, the European Commission, innovators, companies, researchers and competence centres, investors and funders, innovation support services providers, consulting entities and think tanks. Table 1 shows the timeline of activities.

The taskforce Final Dissemination Event on April 2019 acted as a final moment for collecting feedback on key findings and conclusions of the taskforce as well as promote the discussion between TAFTIE agencies on how to implement or further develop those findings.

- cases, the extent to which agencies perform activities contributing to R&I promotion;
- Budget data were subject to either misinterpretations or different figures and indicators used by innovation agencies. For example, agencies with multi-annual budgets for specific programmes (especially those that involve long-term credit, reimbursement or interest/ revenues) have different considerations for calculating annual figures than agencies with simpler programmes and pre-defined annual budgets;
- There was very limited data on the budget spent on advisory and support services and great difficulties in ensuring comparability;

Figure 1: Survey timeline



1.4. Limitations and constraints

The survey collected facts from TAFTIE member agencies on their current activities and plans for future operation. Requests for additional information, the focus group discussion and the two interactive sessions provided more qualitative information, by collecting views, comments, expectations and interpretations from innovation agency representatives, based on their experiences.

During the analysis of the data collected through the survey, the following limitations were encountered, which led to the need to further explore and discuss some aspects of the survey through the focus groups and additional requests for information:

 There were different interpretations across agencies on key terms (e.g. what 'R&I promotion activities' may encompass), which made it unclear to determine, in some

- There was limited data on the number of entities that directly benefit from the advisory and support services provided by innovation agencies, namely because some agencies do not collect this type of data;
- There were different approaches regarding the collection
 of HR information about staff, or this information was
 not collected by agencies. Also, the correlation between
 future advisory and support services needed and data on
 qualifications, skills and human resources capabilities of
 innovation agencies as collected for this survey are based
 only on qualitative research, meaning that the intensity of
 this correlation is based on personal views and opinions
 and not quantitative data.

The survey is, thus, a mapping exercise of the advisory and support services provided by innovation agencies across Europe and the correspondent soft skills and competencies that innovation agencies have in order to provide those services. Due to limitations of time and resources, it is not a benchmarking exercise of the effectiveness of the delivery of those services by the surveyed innovation agencies, nor does it draw conclusions about the performance or success of innovation agencies (either individually or as a whole). It is an exercise of observation of the current reality of agencies across Europe with regard to non-financial support to innovation and mainly intends to promote the debate around it. It has also highlighted areas where further research and analysis would add value.

1.5. Report structure

The rest of this report discusses the findings from the survey and qualitative research. Section 2 gives an overview of the profiles, mission and budgets of surveyed agencies. Section 3 describes the approach taken to the provision of advisory and support services. Section 4 then looks at the backgrounds and skills of innovation agency staff. A concluding section 5 offers ideas and recommendations for next steps - at both the national and European levels - to implement or develop the Taskforce findings.

A PROFILE

OF INNOVATION AGENCIES ACROSS EUROPE

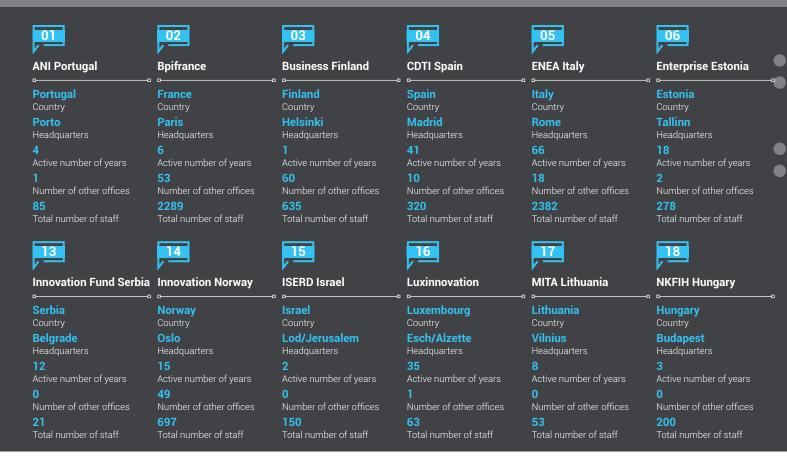
As noted in the wider literature⁷, innovation agencies come in many shapes and sizes. There is no single distinctive model, although a range of different organisational 'types' can be observed. The missions and structures of these agencies can also change relatively quickly, as government research and innovation priorities shift. One of the key objectives of this survey was therefore to gather an up to date picture of the profile of member agencies within the TAFTIE network.

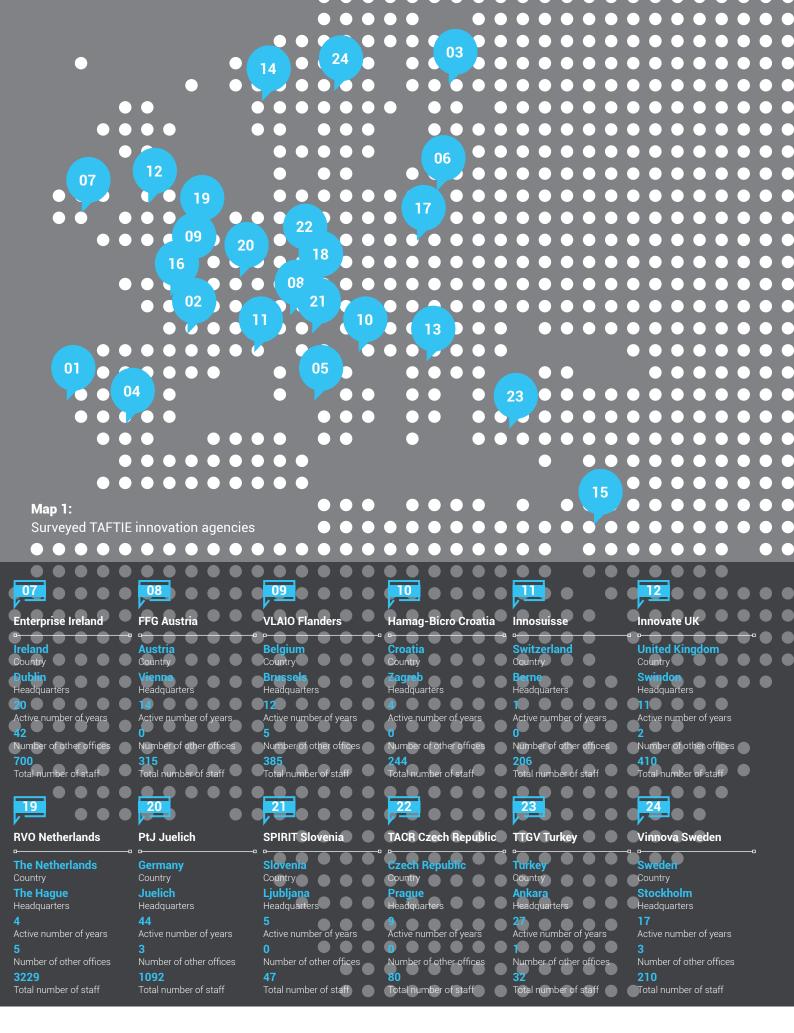
The survey also gathered data on the location of agency headquarters, as well as the number of years that the agency has been active, number of additional offices, and staff headcount. These details are shown below.

2.1. An organisational mapping

Map 1 shows the location of the headquarters of surveyed agencies.

⁴See for example Bound K and Glennie A (2016) *How Innovation Agencies Work*, London: Nesta and Breznitz D, Ornston D and Samford S (2018) 'Mission critical: the ends, means, and design of innovation agencies', Industrial and Corporate Change, Volume 27, Issue 5, pp.883–896





The previous table reveals some key variations across innovation agencies in terms of institutionalisation, size and reach. The median age for an innovation agency is around 11.5 years, but the group includes some bodies that are relatively new, and some which have existed for decades. However, this conceals some of the organisational shifts that have happened within these agencies over time. For example, Business Finland has been operational in its current form for just over a year, but was produced by a merger of Tekes (the former innovation agency, which had been established in 1983) and a national corporation called Finpro Oy (which had previously offered services related to internationalisation, investments and tourism promotion).

Agencies also vary considerably in size. The median is around 250 members of staff but the smallest (Innovation Fund Serbia) has just over 20 employees, while the largest (RVO Netherlands) has more than 3,000. Larger agencies tend to have a wider range of responsibilities - of the four in the group with more than 1,000 employees (Bpifrance, ENEA Italy, RVO Netherlands and PtJ Juelich in Germany), three have broad mandates that go beyond R&I promotion. For example, ENEA Italy is primarily focused on energy efficiency, the climate and environment and renewable energy.

Around a third of the agencies surveyed currently have no additional offices. These tend to be the agencies that are below median in size, do not have additional responsibilities beyond R&I promotion, and do not have specific regional programmes. But many do have satellite offices in regional and international locations. The four outlier agencies with more than 40 additional offices (Enterprise Ireland, Innovation Norway, Bpifrance and Business Finland) have substantial trade and export promotion responsibilities, requiring a large international presence.

2.2. The wide-ranging remits of innovation agencies

Although 22 out of 24 agencies in the group have similar governance structures (as purely public sector bodies), there is considerable diversity among them in terms of structure and mission. For example, just under half of the agencies are wholly focused on supporting R&I. The rest have additional mandates and responsibilities, including trade and export promotion, tourism, infrastructure investment and other support for enterprises that does not

fall within the category of R&I promotion.

A closer look at the nature of support for research and innovation within these agencies also reveals some key differences. Nesta's research suggests that there are four broad approaches that innovation agencies take to support innovation, entrepreneurship and growth, as shown in Figure 2 below⁸. Not every agency fits neatly into one category or another - in practice, they often have multiple missions and use a range of methods to achieve them. However, the typology helps agencies to think about their overall mission and where they fit within the wider innovation ecosystem.

Figure 2: Innovation agency models



Market and System Fixers: seek to address failures in markets and networks that impede business innovation and investment in R&D, often without preference for specific technologies or sectors.



Industry Builders: focus on transforming an economy or creaating new sources os economic competiveness by investing in the development of a set of a new sectors or technologies.



Mission Drivers: aim to induce innovations that address major societal and economic challenges, often in policy areas of significant tradicional R&D spending such as defende, energy, the environment or health.



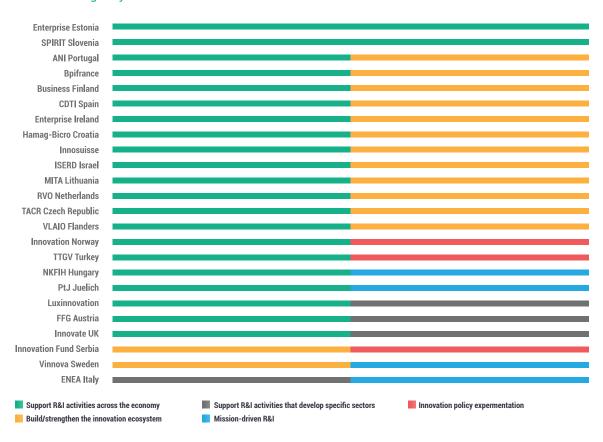
System Optimisers: work towards ensuring continuous global competitiveness and creating more effective enabling innovation systems by experimenting with different policy and programme mixes.

The Taskforce survey built on the Nesta typology, and asked innovation agencies to select a maximum of two primary missions from the following list:

 Supporting R&I activities across the economy, without a focus on specific sectors or technologies;

⁸More detail on this typology can be found in Bound K and Glennie A (2016)

Chart 1: Innovation agency missions



- Building or strengthening the innovation ecosystem (for example, by promoting industry-research cooperation);
- Supporting R&I activities seeking to develop specific sectors and/or technologies;
- Mission-driven R&I (i.e. coordinating or developing responses to specific large-scale societal challenges in areas like defence, energy, health);
- Innovation policy experimentation (i.e. developing new methods of supporting R&I).

As Chart 1 shows, supporting research and innovation across the economy without a focus on particular sectors or technologies is the most common purpose of the agencies in the group⁹. Strengthening the innovation ecosystem is also a priority for more than half of surveyed agencies. Relatively few agencies have a mandate for mission-driven innovation support or innovation policy experimentation, although focus group discussions suggested that there might be varying interpretations of what these terms mean.

Most agencies found it difficult to select only two options, showing the broad range of responsibilities that many have. This raises questions about the unique roles innovation agencies do or should play within their system, and how they can use available budgets in the most strategic way.

⁹This does not necessarily mean that most agencies do not support the development of any specific sectors or technologies, but rather indicates that the balance tilts towards provision of services for a broad range of beneficiaries rather than a highly specialised group.

2.3. Agency spending on research and innovation

A comparison of total amounts spent by different agencies is relatively meaningless, given variations in the sizes of different national economies. However, some interesting observations emerge from comparing the distribution of these budgets and the comparative overall significance of agency spending.

For example, agencies shared breakdowns of the proportion of their total budget spent on operational costs (such as staffing, overheads, administrative and other non-R&I programme costs) compared to intervention costs (the direct spending on R&I funding and support programmes). Of those agencies who gather data, five (TACR Czech Republic, CDTI Spain, NKFIH Hungary, ANI Portugal and VLAIO Flanders) spend between a fifth and a third of their budgets on operational costs. ¹⁰ Twelve agencies spend less than 15 percent of their budgets on operational costs. It would be useful to explore this variation in more detail, to better understand how decisions are made about the allocation of spending.

The size of agency budgets as a proportion of gross domestic expenditure on R&D (GERD) also gives some insight into the kind of innovation system different countries have. Bpifrance is an outlier within this group - it has a significantly larger budget than other agencies and is responsible for around 85 percent of France's GERD. A small group of agencies (Enterprise Estonia, RVO Netherlands, Hamag-Bicro Croatia, NKFIH Hungary, Business Finland, Enterprise Ireland, VLAIO Flanders and Innovation Norway) have budgets that represent between 10-30 percent of GERD, making them relatively large players within their respective innovation ecosystems. The budgets of other agencies in the group accounted for less than 10 percent of GERD spending, potentially signifying that these countries have more diverse innovation ecosystems with a wider range of funders.

To better understand the different ways in which these agencies support innovators, the high-level mapping of organisational profiles has been complemented by a detailed analysis of the advisory and support services they offer, described in Section 3.

¹⁰A quarter of the agencies in the group (RVO Netherlands, CDTI Spain, Business Finland, VLAIO Flanders, NKFIH Hungary and ANI Portugal) also manage tax incentive programmes, in addition to their spending on R&I. These costs are usually not included in the total agency budget.



NON-FINANCIAL SUPPORT PROVIDED BY INNOVATION AGENCIES: THE ROLE OF ADVISORY AND SUPPORT SERVICES

Innovation agencies across Europe provide a diverse range of advisory and support services, which are defined in this report as services that are not direct financial incentives to R&I, such as business coaching, mentoring, business management advice, training, knowledge-brokering or matchmaking activities, innovation skills training, etc. This section outlines the key findings from survey data and qualitative evidence gathered regarding the nature of these services, delivery models, the value attached to them by innovation agencies, and challenges and opportunities for developing these services further in the future.

3.1 All advisory and support services provided

Table 1 gives an overview of all of the advisory and support services currently provided by each of the 24 surveyed agencies, either delivered as standalone programmes or as part of other financial instruments. These are categories of services, rather than a detailed examination of every programme or service provided, so there may be variety in the way they are defined and implemented, even if the goals are similar.

To aid comparison, the report clusters services into the following groups:

- Information provision: Dissemination of information on opportunities, funding programmes, tools and rules of procedure;
- Connecting services: Brokerage activities and matchmaking (including partner search, contacts with investors, universities and with other entities);

- Internationalisation support: Support to international collaborative R&I development, organisation of international missions, trade and export promotion services;
- Intelligence provision: In-house research, provision of market research and financial analysis, analysis of current and future skills;
- Business development services: Coaching and mentoring support, innovation management advice, business management advice, legal advice (including IPR), support for proposal-writing;
- Training and skills development: Delivery of skills training for professionals and for students, support for businesses to recruit and retain skilled staff;
- Promotional support: Assignment of awards, technology validation, certification or accreditation.

Table 1:All advisory and support services

		, brokerage	.cinformation	entoring	_{stivities}	uaborative		: csions	
	Networking a activities	_{Ond brokerage} Disseminatio	of information Coaching and Services	g mentoring Matchmaking	Jactivities International R&I activities	collaboru s Innovation management	advice International r	_{management} management	advice Legal advice
ANI Portugal	\bigotimes	\bigcirc	\bigcirc	\bigotimes		\bigcirc	\bigcirc	\bigcirc	\bigcirc
Bpifrance	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Business Finland	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc		
CDTI Spain	\bigcirc	\bigcirc		\bigcirc	\bigcirc				
ENEA Italy	\bigcirc		\bigcirc						
Enterprise Estonia	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc
Enterprise Ireland	\bigotimes	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc
FFG Austria	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc
Hamag-Bicro Croatia	\bigotimes	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc
Innosuisse	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc
Innovate UK	\bigcirc	\bigcirc	\bigcirc	\otimes	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc
Innovation Fund Serbia	\bigcirc	\bigcirc		\bigcirc					
Innovation Norway	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc
ISERD Israel	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		
Luxinnovation	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
MITA Lithuania	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
NKFIH Hungary		\bigcirc			\bigcirc			\bigcirc	\bigcirc
PtJ Juelich		\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc		\bigcirc
RVO Netherlands	\bigotimes	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc
SPIRIT Slovenia	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
TACR Czech Republic	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
TTGV Turkey	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc		\bigcirc	\bigcirc
Vinnova Sweden	\bigcirc	\bigcirc		\bigotimes			\bigotimes		
VLAIO Flanders	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc

	a support	.ch	a	us training	h	dation	inesses to	ccreditation	oninia training	ant
Proposal-writ	Iu-ponze Lezer	arch Trade and exp promotion se	ort _{Strices} Delivery of sl for professiv	ills training onals Market resea and financia	rch Lanalysis Technology	Support for b recruit and r	usinesses to usinessilled staff etain skilled Certification	CDelivery of s	skills training Analysis of Co and future s	_{urrent} Kills Award assignm
\bigcirc	\bigcirc	•	·	•		·			•	\bigcirc
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
		\bigcirc		\bigcirc						
\bigcirc										
\bigcirc										
		\bigcirc		\bigcirc						
\bigcirc	\bigotimes	\bigcirc	\bigcirc	\bigcirc		\bigcirc		\bigotimes	\bigotimes	
\bigcirc	\bigcirc	\bigcirc								
\bigcirc	\bigcirc	\bigcirc	\bigcirc					\bigcirc		
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
\bigcirc	\otimes			\bigcirc		\bigcirc	\otimes			
\bigcirc										
\bigcirc	\bigotimes	\bigcirc		\bigotimes	\bigcirc				\bigcirc	
\bigcirc	\bigcirc			\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc	
\bigcirc										
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
\bigcirc	\bigcirc									
	\bigcirc				\bigcirc					
\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\otimes	\bigcirc	\bigcirc	
\bigcirc		\bigcirc		\bigcirc				\bigcirc	\bigcirc	
\bigcirc	\bigotimes	\bigcirc		\bigcirc		\bigcirc	\otimes	\bigcirc	\bigcirc	
	\bigcirc		\bigcirc		\bigcirc				\bigcirc	
		\bigcirc								
\bigcirc	\bigcirc		\bigcirc		\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	

Table 2: Clustered advisory and support services

Table 2 shows the services provided by different agencies, clustered by type.

			at servir	ces			uelopment
	Information P	_{Rovision} Business de	Couvective (_{Serv} ices International	_{Support} Intelligence f	_{provision} Training and	_{skill} s development Promotional suppor
ANI Portugal	\bigcirc	\bigcirc	\bigcirc	\odot			
Bpifrance	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Business Finland	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigotimes	
CDTI Spain	\bigcirc	\bigcirc	\bigcirc	\bigcirc			
ENEA Italy		\bigcirc	\bigcirc				
Enterprise Estonia	\bigcirc	\bigcirc	\bigcirc	\bigcirc			
Enterprise Ireland	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
FFG Austria	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		
Hamag-Bicro Croatia	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
Innosuisse	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Innovate UK	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Innovation Fund Serbia	\bigcirc	\bigcirc	\bigcirc				
Innovation Norway	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
ISERD Israel	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
Luxinnovation	\bigcirc	\bigcirc	\bigotimes	\bigcirc			
MITA Lithuania	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc
NKFIH Hungary	\bigcirc	\bigcirc		\bigcirc	\bigcirc		
PtJ Juelich	\bigcirc	\bigcirc		\bigcirc	\bigcirc		\bigcirc
RVO Netherlands	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc	\bigcirc
SPIRIT Slovenia	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc	
TACR Czech Republic	\bigcirc	\bigcirc	\bigcirc	\bigotimes	\bigcirc	\bigcirc	\bigcirc
TTGV Turkey	\bigcirc	\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc
Vinnova Sweden	\bigcirc		\bigcirc	\bigcirc			
VLAIO Flanders	\bigcirc	\bigcirc	\bigcirc	\bigcirc	\bigcirc		\bigcirc
Total Agencies	23	23	22	21	19	14	12

Information provision and business development services are offered by the majority of innovation agencies, while connecting activities - such as brokerage or matchmaking services - and international activities (such as innovation and trade missions) are also common. Case study 1 gives an example of the coaching services offered by Innosuisse as part of their efforts to support start-ups and scale-ups.



CASE STUDY 1:

Innosuisse's coaching and mentoring service

Innosuisse is Switzerland's innovation agency. It has a mandate to promote science-based innovation in the interests of industry, society and research, and does this by providing funding for innovation projects, expertise and a range of advisory and support services. Coaching services for start-ups are a core part of Innosuisse's offer, and have evolved as the agency learns more about what works.

The nature and value of coaching

Coaching for science-based start-ups is provided free of charge and carried out in three stages. Initial coaching examines the business concept with regard to feasibility, marketability and further development. Core coaching promotes start-ups during the build-up phase in different modules. Scale-up coaching then supports future growth-oriented start-ups. In 2019, there are around 150 start-ups in initial coaching and 250 in core coaching, with a total of 80 coaches.

Surveys show that issues related to developing the business plan, strategy and planning, intellectual property issues, financial planning and mentoring are most frequently dealt with through the coaching process. The added value of coaching lies in its flexible tailored nature for individual clients with a very broad range of thematic experiences, as well as in the broad network of experienced coaches that are involved in supporting clients. Innosuisse's coaching support is aimed in particular at start-ups with a very high potential for innovation. Around half of these are spin-offs from the academic sector. Structural change in the innovation system will in future be shaped even more by disruptive innovations and new business models that are created by start-ups. A strong entrepreneurial ecosystem – characterised by more disruptive changes - will be become more important to innovation systems, the promotion of innovation and finally strengthen future innovation and competitiveness.

An evolving offer

Innosuisse has run start-up coaching for more than 20 years and has continuously developed this programme to meet the needs of science-based start-ups and experiment with new approaches. For example, until 2017, coaches were assigned to start-ups by Innosuisse. A new voucher system now allows start-ups to select accredited coaches directly according to their specific needs (although experts can recommend possible coaches). With the voucher system, competition among certified coaches is strengthened and the specific needs of start-ups have a greater impact, since they are driving the process. At the same time, however, steering by the experts is becoming more difficult and the system presupposes that the start-ups know their needs well. Coaches with good acquisition skills have an advantage.

Impact and lessons learned

Analysis of the impact of coaching on Innosuisse-supported start-ups is made on the basis of existing input and output data, comprehensive surveys and control group studies of the start-ups in the coaching process. A particular challenge lies in identifying the contribution of coaching to the development and success of start-ups (i.e. the additionality of the coaching). The results of the direct surveys show a significant influence on the competencies of the management team and a measurable contribution to the success of the start-ups among all the other factors. Empirical results show that start-ups generally do not really grow until years after they have been founded. Innosuisse has therefore introduced a new scale-up coaching programme designed to specifically strengthen the growth of highly innovative start-ups.

Activities that are not covered in Table 1 but were mentioned by some agencies include promoting dialogue between innovators and decision makers, so as to integrate their needs on strategy development and policy making, innovation procurement, fostering knowledge sharing through peer-to-peer networks, digitalisation activities and support to data interoperability. All of these are services that agencies have launched based

on the identified needs of the innovators they support, and that contribute to the fulfilment of their innovation promotion mission, with a central goal of de-risking the innovators' endeavours. For example, SPIRIT Slovenia offers a programme that aims to develop innovation skills through the Slovenian education system, described in case study 2 below.



CASE STUDY 2:

SPIRIT Slovenia's approach to developing innovation capabilities and skills

SPIRIT is Slovenia's public agency for entrepreneurship, internationalisation, foreign investments and technology. It provides a range of different types of support to start ups and existing innovative companies and is working to raise the profile of innovation and entrepreneurship among citizens in Slovenia. This includes an experimental programme to develop innovation skills among students and teachers in primary and secondary schools.

A mandate to develop innovation skills through the education system

SPIRIT believes that it is crucial to develop creativity, innovation and entrepreneurship skills among young people. These skills can encourage them to start their own businesses or be better problem-solvers in institutions and companies. The Ministry of Economic Development and Technology has given SPIRIT a mandate and resources to build these capabilities, which has led to the development of training programmes and workshops that are delivered in primary and secondary schools. The annual budget for these activities is EUR 200,000. SPIRIT provides financial support for activities associated with the programme (material costs, possible external mentors, support from local entrepreneurs) through public tender.

Developing innovation skills for the future

The programme supports teams of students in secondary school to work on business ideas - testing, pivoting, and building a 'business canvas'. Some pupils in higher grades of primary school participate in these activities. In addition, for pupils in the 6-9th grades of primary school, teachers/mentors prepare after-school activities which include exercises for strengthening innovation skills. Creativity, innovation and entrepreneurship skills are the focus of these workshops. Teachers and students are supported to define problems, find solutions and identify what is needed to implement the solution on the market. Most of the business ideas developed in these workshops have not been implemented, but the best teams get the opportunity to develop their ideas further. For example, the three most promising entrepreneurial ideas by young students in 2018 were a portable glucose detection device, an online leisure platform and free gaming for the purpose of obtaining MyQpon discount coupons. The best teams receive 1000 EUR from the Slovene Enterprise Fund and two months of mentoring from SPIRIT for further development of their ideas.

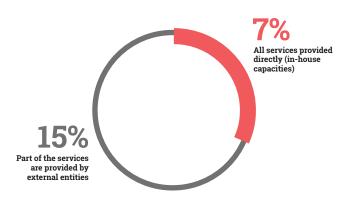
Lessons learned

The skills training programme has evolved over the four years it has been running. Early workshops were oriented towards the promotion of entrepreneurship skills, but different methodologies are now used where workshop participants are supported to prepare, prototype and present a business model canvas for their ideas. SPIRIT now also organises two to three-day training sessions for teachers to help them prepare the business canvas, so that they have the same experience as young people. SPIRIT provides external mentors to support teachers to help them become more competent in running those activities themselves. The programme has grown considerably over time. In some regions it started with one teacher, the following year there were two teachers and now after four years almost all schools are involved in this initiative. They have also started to cooperate with each other and support institutions. A key success factor has been the provision of high-quality, hands-on workshops for teachers. These activities can change the lives and aspirations of students, but also teachers and schools, support institutions and others. of highly innovative start-ups.

3.2. The 'perimeter of action' for innovation agencies

Less than one third of surveyed innovation agencies provide all of their advisory and non-financial support services directly, using in-house resources and capabilities to support beneficiaries. The rest rely on external entities with specific competencies or resources that are unavailable within their structure for providing at least part of their range of services, through contracts or partnering agreements.

Chart 2: Advisory and support services delivery models



The majority of outsourced services are delivered by individual experts, including coaching, mentoring, advice on legal, IPR, business management and growth, innovation management, proposal management and internationalisation (especially in specific high-technology or highly specialised markets). Training and information provision, scale-up support (sometimes including international growth), digitisation know-how and support to design are also often provided by other entities, either through contracts or through direct funding with a view to building a network of intermediary institutions or 'multipliers' that can also provide close support to innovators.

For example, Innovation Norway hires expertise in highly specialised markets across its network of offices abroad, but is developing the skills and capabilities required for trade promotion and internationalisation in-house. Consultants are hired across the world under Innovation Norway's Global Growth and Global Entrepreneurship programmes with both business mentoring and sectoral markets competencies.

A network of intermediary organisations helps identifying relevant mentors.

CDTI Spain has the same approach to ensuring a closer proximity to innovators across Spain's regions. A network of multiplier entities (the PI+D+i network) outsources CDTI's information provision and advice on funding opportunities for R&D activities. Innovation Norway and CDTI Spain also hire a pool of experts to support the participation of innovators in Europe's Horizon 2020 programme - both to attract newcomers to the programme and to provide pitch training before panel interviews.

Enterprise Estonia is seeking to build competencies and design specific services in-house, at business and sectoral levels, to be offered through internal 'client managers' to key beneficiaries in 12 identified target markets. But the agency also relies on external experts for providing many of their coaching, mentoring, strategy advice and digitisation support services.

The identification of target markets or missions helps some agencies to define their 'perimeter of action', both in terms of available services and of skills and competencies to deliver them. However, this is an ongoing and evolutionary process. It is closely related to the overall mission of the agency and thus it varies over time and between agencies.

For example, Innovate UK funds and works with a wide network of 'multipliers' - including the EEN, Knowledge Transfer Network (KTN)¹¹ and Catapult centres¹² - to provide a certain level of support for innovators (particularly for scale-up businesses), after which they are helped to access support from the private sector. Comparatively, VLAIO Flanders defines its internal 'action perimeter' as being to provide information and limited IP and funding advisory services, while outsourcing all other services to external entities. Meanwhile, Bpifrance pairs external experts with their own staff to provide specific services in areas identified as key issues for SMEs.

¹¹The Knowledge Transfer Network (KTN) is Innovate UK's network partner and provides, among other things, business and academic sector networking. For more details, access **here**.

¹²The Catapult centres are a network of world-leading centres design to transform the UK's capability for innovation in specific areas and help drive future economic growth. For more details, access <u>here</u>.

Many agencies are still in the process of experimenting with what works in terms of their approach to the provision of advisory and support services, and there is much value to be gained in sharing lessons about best practices. As considered by Business Finland, agencies may reach the conclusion that they should outsource more of their services in the future in order to bring more value to their customers, for instance on services related to internationalisation, instead of following their long-term tradition of providing most of these in-house.

Interaction with beneficiaries and measurement of the impacts of advisory and support services - a practice which is still underdeveloped in most agencies - could help to establish clearer boundaries and offer a guide for agencies as to where they should seek to build internal expertise and where they should work more with external partners. Dialogue with innovators, funders and other entities across Europe during Taskforce discussion events have provided further insights in these areas. ¹³

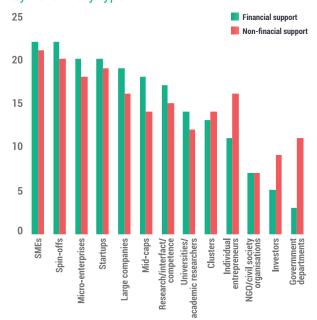
3.3. Different approaches for different types of beneficiary

More than three quarters (19 out of 24) of surveyed agencies direct particular support instruments (either financial or non-financial) to specific entities, segmenting the beneficiaries they serve according to different criteria. Seven of them use geographic criteria, 18 agencies provide targeted support to specific sectors or industries and 12 agencies have activities targeted at companies with different levels of technological development. Size and growth potential are particularly common segmentation criteria for innovation agencies, with different forms of support given to SMEs, midcaps, startups, scaleups, etc.

Chart 3 shows the type of support provided (financial or non-financial) to different types of beneficiary. In general, agencies' support to businesses (at various sizes and technological maturity levels) and research institutions is more likely to be financial, while non-financial support is more likely to be given to clusters, individual entrepreneurs, investors and government departments, suggesting that these type of entities receive more standalone advisory services that are not embedded in financial instruments. However, there is not a clear split for most types of beneficiary.

The research interviews and focus group discussions revealed

Chart 3: Type of support provided by innovation agencies, by beneficiary type



that a number of innovation agencies see non-financial advisory and support services as being an increasingly important part of their offer to innovators. This was mentioned particularly by Bpifrance, Business Finland, Enterprise Ireland, Innovate UK, Innovation Norway, Luxinnovation and PtJ Juelich. For PtJ Juelich, which competes for Ministry funding with other regional agencies in Germany, advisory and support services are the domain where the agency can differentiate and ensure visibility for its interventions.

This accompanies a shifting focus towards providing more bottom-up innovation support that starts with what the innovator needs, rather than what the provider has to offer. The agencies mentioned above (as well as policymakers at the European level) are explicitly moving from a top-down 'projects and programmes' approach, towards a company or innovator-centric approach that calls for closer proximity to the beneficiary, a strengthening of the advisory and support services provided to them and a more holistic approach between different kinds of support (including financial) that puts the innovators' requirements at the heart of the agency's intervention.

¹³See reports of the 3 discussion events held by the Taskforce.



RVO is Netherlands Enterprise Agency. It offers a range of services to entrepreneurs in sustainable, agrarian, innovative and international business. It does this by financing innovative ideas, funding business partners, know-how, intellectual property rights and compliance with laws and regulations. RVO is currently shifting the focus of its approach to service delivery to companies by implementing a new programme that offers high-potential startup and scaleup companies a more tailored set of services.

Moving from top down to bottom up support for clients

RVO is currently shifting from an approach which used to be predominantly focused on the implementation of top-down programmes to an approach which explicitly takes the needs of its clients as the starting point i.e. addressing the bottlenecks entrepreneurs are experiencing in their innovation and development processes. An interesting case in this respect is the programme 'FastLane' which is currently in development by assignment of the Ministry of Economic Affairs, Directorate-General of Entrepreneurship and Innovation. The programme, designed by RVO, focuses on high-potential startup and scaleup companies with innovative products and growth potential. The programme encompasses the whole process of scanning the business environment that these companies operate within, assigning contact points/account managers to support them, and giving proactive advice on services and programmes through to the evaluation of support and creating a feedback loop to policy development. The FastLane programme is providing a helping hand to businesses, through company services and programmes, network connections and financial guidance within and outside Netherlands Enterprise Agency.

The reasons for this shift

RVO is making this shift from primarily being a funding body managing financial support schemes to an agency offering a wider range of services addressing the specific needs of clients as a result of wider trends at both national and international (European) levels, in which mission-oriented innovation (Dutch Ministry of Economic Affairs and Climate), societal challenges (European Commission) and the Sustainable Development Goals (United Nations) are considered of key importance in targeting public (and private) investment. Clients, who previously found it difficult to know what support and opportunities were available, now have better guidance to lead them through the range of public services and help them overcome the barriers they face in an effective and efficient manner. Although the innovation support environment has not yet become simple and predictable (with client support always available in case questions on specific programmes have to be answered), it is evident that support in the Fastlane programme has now become proactive instead of reactive, and focused directly towards on the needs of the entrepreneur.

Lessons learned so far

Although RVO has only been developing this programme for a short time (it started in November 2018), some challenges are already evident. The first challenge is the shift from specialisation to generalisation. Instead of being the expert on a number of programmes and different grant schemes available to support various business initiatives, RVO now proactively approaches businesses with high potential, assesses their overall needs, and then takes those needs as a starting point and assists them for as long as they require. This shift requires a change in the set of skills and competences as the agency's staff needs to have more know-how on a series of support activities then only focusing on delivering a specific programme. Another lesson learned is that combining the know-how and network of the different staff (specialists) gives the extra support needed to the startup/scaleup as the agency's staff realises how much they can learn from each other.

This approach brings challenges as well as opportunities, since innovator-led interventions tend to be more resourceintensive than the delivery of broader but shallower support services. Some agencies are addressing this by segmenting and selecting fewer beneficiaries for more in-depth and tailored support, since they are unable to provide unlimited holistic and long-term support to all beneficiaries. Some agencies compare their support offer to a pyramid. At the bottom are a range of (mostly) digital-only services, accessed by the majority of beneficiaries through an informational web portal and a few standardised support features. A smaller middle layer of beneficiaries with higher growth potential receives more tailored and demand-led services. A small top layer of beneficiaries with the highest growth potential receive highly tailored services that require a greater investment of agency time and/or resources. Case study 4 describes Business Finland's approach to this (see page 27).

Following focus group discussions, agencies were asked to make qualitative judgements about the 'intensity' of the different types of advisory and support services they provide. This is shown in Table 3 (see pages 28-29).

- A score of 0 indicates that the agency does not offer the service at all:
- A score of 1 indicates that the service provided is lowintensity, with little or no direct engagement with the beneficiary (e.g. information made available on a website);
- A score of 2 indicates a medium intensity service, involving a certain degree of dedicated support in terms of resources and staff to provide the service to the beneficiary (e.g. a limited and standardised direct support for a single or small group of beneficiaries);
- A score of 3 indicates a high-intensity service, involving a high level of commitment by the agency, with a high degree of tailored attention and resources mobilised towards the beneficiary (e.g. in-depth support for individual beneficiaries by a dedicated account manager).

Although these judgements are subjective and different agencies may be using different criteria to select scores, they give a sense of the types of services that tend to be more tailored and demand-driven.

From the table, it appears that agencies take a range of approaches to the same services, suggesting that highly intensive support may be offered through different services by different innovation agencies. However, some trends are apparent. The following services are more likely to be offered in a resource-intensive and tailored way:

- innovation networking and brokerage activities;
- dissemination of information.
- · coaching and mentoring services,
- international collaborative R&I activities,
- · innovation management advice,
- · business management advice,
- legal advice; and
- proposal-writing support.

The process of tailoring a service can happen in different ways. For some agencies, it is the result of a deliberate decision to design services that will suit the needs of particular beneficiaries that have already been identified. For others, it may develop more informally, as the result of regular contact with beneficiaries whose needs and growth potential gradually become known.

It is difficult to draw general comparative conclusions from Table 5, since agencies will have different definitions of what constitutes a high-intensity or tailored service. However, the mode values do give a good sense of the services that individual agencies prioritise within their own portfolios. As expected, the agencies that do not currently segment their beneficiary communities are among the agencies more likely to offer more low intensity services.

Bpifrance, Enterprise Ireland, Innovate UK, Innovation Norway, Luxinnovation and RVO Netherlands are the agencies with the highest number of services delivered in an intensive way. There is some overlap here with the agencies who are taking the decision to shift from a programme delivery model to a more beneficiary-led approach to the provision of advisory and support services. For these agencies, networking and brokerage activities and support for international collaborations are provided in a particularly resource-intensive way, while innovation management advice also tends to be a more tailored support service. The group is joined by CDTI Spain, Enterprise Estonia, FFG Austria and TTGV Turkey as the agencies that offer most of their services in a tailored and resource-intensive way, even if these resources are concentrated in a smaller set of services.



CASE STUDY 4:

Business Finland's processes for 'first contact' and the customer journey

Business Finland was established in 2018, with an aim of accelerating the growth and internationalisation of Finnish companies through funding and advisory services. It was formed from a merger of Tekes (the former innovation funding agency) and Finpro (an agency offering services for internationalisation, investments and tourism promotion). Business Finland has a strong focus on the 'user journey' of its customers.

Selecting high potential companies

Business Finland's objective is to help companies who have a strong desire and capabilities for growth in international markets. All Finnish companies are eligible to apply for funding and other services from Business Finland but not all of them fit the requirements to receive these services. Account selection is based on the growth or renewal potential of the company, and the added value of Business Finland's service offering to the customer. The risk is always evaluated to find out what the impact of Business Finland's actions to the customer and to Business Finland would be

Supporting the customer journey

Business Finland has a three-stage customer process to direct the right kind of support for each need and growth phase. The first phase is called 'Qualify'. All companies interested in innovation activities and international growth are advised about services that Business Finland and other national and EU agencies offer. In this phase, online and digital services are used as much as possible, and the time spent with each customer is limited. The aim is that this first contact point is efficient and fast, with customers guided to the right service track within seven days from first contact.

The second phase is called 'Develop'. About a third of customers from the Qualify phase are expected to move to the Develop phase. Here, potential growth and innovation customers are given more intensive advisory services and de minimis funding to build up their ability to enter international markets, including tailored advice and coaching. Services offered in this phase are intensive but short-term, and not all customers in the Develop phase continue towards long-term account management. Some customers never meet the criteria for the long-term account management while some are only looking for one-off services to meet a specific need. During and after the utilisation of Business Finland services, the responsible Business Finland advisor evaluates whether the client has met the targets set for growth and what the future Business Finland customer journey should be, if any.

The third phase of the customer process is called 'Account' and it focuses on dedicated account management for the most impactful and promising customers. About half of the companies in the Develop phase are expected to move forward to the Account phase. In this phase, customers are matched with an account manager who follow the company along its growth path. Customers are offered a combination of funding and advisory and coaching services. The most intensive services and the largest amount of resources (both funding and human) are targeted towards this customer group. Customers are fewer but they receive more, as they have the greatest potential to grow.

Lessons learned and next steps

A systematic process for managing the customer journey helps in designing services that match customer needs. When customer needs are carefully identified at the beginning of the journey, it is easier to develop the right kind of services for each customer. This saves resources for both customers and Business Finland. Efficient customer service processes require well-defined online and face-to-face services. Digital services are essential to decrease the number of resource-intensive personal contacts with companies that are not potential innovation clients. More digital and AI based services should also be used in advising companies who are already innovation clients.

Table 3: Intensity of advisory and support services provided by innovation agencies

by innovation agencies		akerage	reformation	Painos	itie ^s	borative		:ons	
	Networking a Activities	_{and} brokerage Disseminatio	on of information Coaching and Services	d mentoring Matchmaking	_{activities} International R&I activities	collabor 2 s Innovation management	advice International n	Business Management	Legal advice
ANI Portugal	3	3	1	3	2	3	2	2	1
Bpifrance	3	1	2	2	3	3	3	3	1
Business Finland	2	2	3	2	2	3	2	0	0
CDTI Spain	3	2	0	2	3	0	0	0	0
Enterprise Estonia	2	3	0	1	1	2	0	3	3
Enterprise Ireland	3	3	3	3	3	3	3	3	3
FFG Austria	3	3	3	3	0	3	2	2	3
Hamag-Bicro Croatia	2	2	1	2	1	1	0	1	1
Innosuisse	3	2	3	2	0	2	2	1	2
Innovate UK	3	2	3	3	3	3	3	2	2
Innovation Fund Serbia	1	1	0	1	0	0	0	0	0
Innovation Norway	3	3	2	2	3	3	2	2	3
ISERD Israel	1	3	1	1	3	2	1	0	0
Luxinnovation	3	3	2	3	3	3	3	3	2
MITA Lithuania	3	3	2	3	3	3	1	2	3
NKFIH Hungary	0	2	0	0	1	0	0	1	2
PtJ Juelich	0	3	2	0	2	3	2	0	2
RVO Netherlands	3	3	3	3	3	1	3	1	3
SPIRIT Slovenia	2	2	2	1	1	1	2	1	1
TACR Czech Republic	2	2	1	1	2	1	2	1	1
TTGV Turkey	3	2	3	2	0	2	0	3	3
VLAIO Flanders	2	2	3	2	1	3	0	3	3
MODE	3	3	3	2	3	3	2	3	3

Proposal-V	In-house rese	_{earch} Trade and exp promotion so	port Ervices Delivery of ski For professio	ills training inals Market researci Market researcial and financial	h _{analy} sis _{Technology}	_{Validation} Support for bi recruit and re	Certification	f accreditation CDelivery of s for students	_{kills training} Analysis of C and future s	ourrent Skills Award assig
2	1	0	0	0	0	0	0	0	0	2
1	1	3	3	2	2	2	1	1	3	0
0	0	2	0	1	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0
0	0	3	0	3	0	0	0	0	0	0
3	3	3	3	3	0	3	0	3	3	0
3	1	2	0	0	0	0	0	0	0	0
1	2	1	1	0	0	3	0	1	0	0
2	1	1.0	1	1.0	1	1.0	2	1	1.0	0
3	2	0	0	2	0	3	2	0	0	0
2	0	0	0	0	0	0	0	0	0	0
1	2	3	0	2	1	0	0	0	1	0
1	3	0	0	3	3	1	1.	0	3	0
3	0	1	0	0	0	1	0	0	0	0
3	1	1	2	1	1	1	1	2	1	0
1	1	0	0	0	0	1	0	0	0	0
0	2	0	0	0	3	0	0	0	0	0
3	2	3	3	1	3	1	3	1	1	0
1	0	2	0	1	0	0	0	2	1	0
1	2	2	0	1	0	1	1	1	1	0
0	2	0	3	0	3	0	0	0	3	0
2	1	0	2	0	1	3	1	2	2	0
3	2	0	0	0	0	0	0	0	0	0

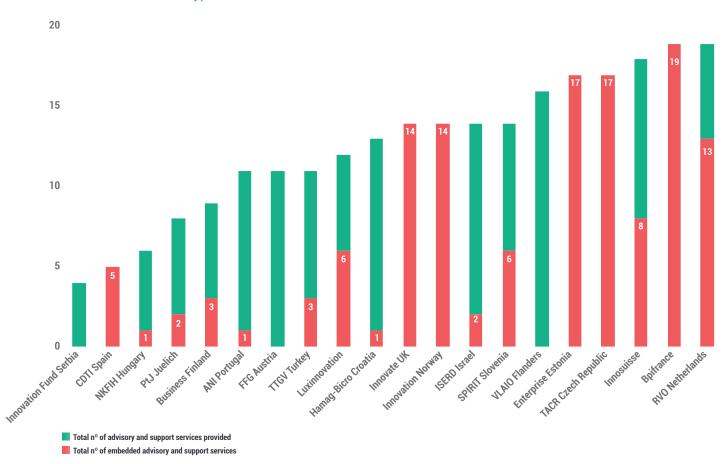
3.4. Delivery of advisory and support services

Table 3 suggests that, in spite of some new services related to building the capacity of companies and other beneficiaries, agencies are still focusing their efforts on the delivery of advisory and support services that are embedded in financial instruments (for example, coaching provided as part of the wraparound support given to SMEs to accompany grants or other forms of financial support).

Chart 4 shows the number of embedded advisory and support services within the total number of types of services provided, for 20 respondent agencies.

The agencies most focused on providing beneficiary-led, tailored support are more likely to embed advisory and support services. However, it is difficult to draw clear conclusions from this. While for some agencies, a high level of embedding suggests that there is a holistic approach to support that is centred on beneficiaries' needs, for others, this may mean that there is less diversity of advisory and support services and/or a programme-based provision of services. These data therefore need to be cross-referenced with the number and the intensity of services offered by each agency. An innovator-centric approach may be suggested by a high level of integration of a diversified set of services in financial support instruments. Case study 5 outlines Enterprise Ireland's approach to embedding advisory services.

Chart 4:Number of embedded advisory and support services within the total number of types of services





CASE STUDY 5:

Enterprise Ireland's embedded services model

Enterprise Ireland is the government organisation responsible for the development and growth of Irish enterprises in world markets. It works in partnership with Irish companies to help them start, grow, innovate and win export sales in global markets. It applies a structured 'client engagement model' (CEM) that embeds a range of advisory services across all of its support programmes for companies.

A more structured, embedded approach

The Client Engagement Model was developed to enable Enterprise Ireland (EI) to work with client companies in a structured, transparent and consistent manner. EI turned its approach to client engagement around so that it could listen and understand what the company's pain points are, then jointly agree which service(s) the company can benefit from rather than starting with what EI can do i.e. it moved from 'selling' EI services to an innovator-centric approach.

The Client Engagement Model

The EI CEM embeds the delivery of services to clients through engagements at three key stages of a company development cycle - Start, Advance and Accelerate.

Start Engagement aims to help high potential start-ups (those with an MVP, an ambitious business plan to sell in international markets and the potential to create 10 jobs and generate €1 million in sales within 3 years) to scale more quickly by targeting support at the pre- and post-investment stage. It consists of a number of stages, from an introductory meeting through to diagnostic process when priority areas are identified, to agreeing a growth action plan and implementation. It is a deep engagement model consisting of regular business plan update meetings, overseas market reviews and a focused development programme with interactive masterclasses on product-market fit, international sales, finance and leadership. Start engagement typically lasts two years. After this, the company transitions to Advance or Accelerate engagement programmes if it hits key milestones.

Advance Engagement targets clients across a range of sectors that have export potential and the capability to grow internationally. It is a diagnostic process that identifies barriers to achieving growth ambitions, levels of existing capability, future capability needs and areas for priority support. There is a clear timeline for agreed actions by the client company and EI.

Accelerate Engagement is focused on client companies with a clear ambition to scale and who historically have demonstrated a high level of exports and job growth. It is a 'team-to-team' engagement involving the client companies' management team and an EI team that supports the company to achieve their growth and scaling ambitions. An up-front diagnostic is carried out to assess client capability needs and to identify areas for priority support based on six key pillars: Strategy, Sales & Marketing, Finance, Operations, Innovation, People and Management. A clear timeline is agreed and focused support services, both financial and non-financial, are delivered by EI, with the client's entire senior management team engaged in the process.

Lessons learned

On a macro level, it is too early to determine if this client engagement model is successful in significantly contributing to Ireland's economic development. However, Enterprise Ireland has seen the following benefits from this new approach:

- There is a more consistent and transparent delivery of EI services across its client base
- · The team-to-team approach works well and gives a sense of ownership to staff
- The deeper dive into business functions gives greater value to client companies
- Enterprise Ireland's ability to on-board new staff has been significantly enhanced, since the CEM process helps new staff to integrate quicker and navigate the 'EI way' of working with clients
- The future development of EI programmes and services will be based on common issues and themes uncovered through this
 client engagement process

How agencies internally organise the provision of advisory and support services is directly related to how embedded or linked these services are to other support instruments. 15 out of 23 agencies administer these services in a horizontal way across agencies' organisational units, meaning that the responsibility for services delivery is scattered or shared by different teams within the agency. Only eight agencies have dedicated teams that provide these services.

Different agencies approach this in different ways. For example, CDTI Spain is evolving from a dedicated team model to horizontally provided services. For Innovation Norway, methodologies and practices for the provision of advisory and support services are spreading across its offices, including those abroad. Enterprise Ireland centralises the design and supervision of tailored support to clients in a Client Management Division, which proactively assesses clients' needs and develops tailored programmes - the provision of the services is then under the responsibility of the identified relevant internal units and often also assigned to external experts. EEN and H2020 are currently managed by separate dedicated teams within Enterprise Ireland, but the intention is to align them more effectively with the management of other advisory and support services within the agency.

When designing and preparing the delivery of advisory and support services, the majority of the surveyed agencies (18 out of 23) have both a proactive supply-driven approach - i.e. determining beneficiaries' needs beforehand and taking the initiative to develop activities in their support - and a responsive demand-driven approach - i.e. acting upon contact from the beneficiary asking for support. This suggests that agencies are willing to be flexible when delivering non-financial support services, perhaps linked to the challenges in proactively identifying clients' needs and the lack of strong evidence on what methods work best in meeting these needs. It also supports the idea of a broader shift that is taking place towards the development of more responsive and tailored services.

For Innovate UK, for instance, the EEN has provided an opportunity to gather evidence on the usefulness of a particular set of services, as the agency could gather a body of information on entities' needs and the perceived value of its support through each service.

3.5. Investment in advisory and support services

Innovation agencies find it challenging to identify how much budget is spent on advisory and support services - especially if they are embedded in other programmes. Discrete components of the advisory and support services' budget may be the costs of the EEN project budget, NCPs and other agency staff costs and budgets for outsourcing specific services or enabling activities. However, a large part of it remains hidden in the overall budget for financial support instruments or is not easy to quantify as both staff and other resources are shared among different activities within the agency. It can also be variable in a given time frame, especially in an innovator-centric approach, as it is dependent on the emergence of needs. It is also worth pointing out the advantage, in the opinion of some agencies, that an embedded budget for advisory and support services makes them less subject to budget cuts, especially while the innovator-centric approach is still taking hold.

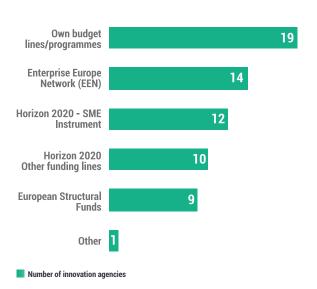
Therefore, the budget for these activities within an agency usually only accounts for a small part of the agency's 'intervention budget' - i.e. the budget that covers direct intervention activities of the agency over its beneficiaries. It may also involve 'operational budget' - i.e. staff costs - although these are not easily calculated. For those agencies that are able to estimate or calculate these costs, the average amount of budget spent on advisory and support services is generally less than six per cent.

In terms of the sources of innovation agencies' budget for these services, Chart 5 shows that most agencies (19 out of 24) have their own budget lines or programmes to cover these activities. EEN is the second most commonly used budget source among the surveyed agencies, followed by the support provided through Horizon 2020's line for the SME-instrument, in collaboration with EEN (i.e. the KAM - Key Account Management and EIMC - Enhancing the Innovation Management Capacities of SMEs services) and by other H2020's funding lines.

Nine agencies use European Structural Funds (ESIF) for funding advisory and support services. For example, TACR is undertaking a project called Open Agency to spread advisory and support services across regional offices in the Czech Republic, making use of ESIF. ANI Portugal manages a special project funded by ESIF for promoting collective actions towards innovation (i.e. activities with an impact on innovation

communities at large), which the agency makes use of to foster strategic dialogues across regions, training and promotional support (e.g. awards assignment for innovative solutions).

Chart 5:Sources of funding for advisory and support services



It is worth highlighting the relevance of EEN in the scope of the advisory and support services developed within agencies. The focus group discussions held in Luxembourg and Bled revealed that for some agencies - including a number for which ESIF is a determining part of the whole agency's budget and where a top-down project-centric approach is dominant, such as ANI Portugal, Hamag-Bicro Croatia, NKFIH Hungary, SPIRIT Slovenia - EEN and H2020 relevant budget lines are the main ways to finance advisory and support services. This determines the specific services that these agencies provide, which may arguably be due to a programmatic mindset that is favoured by the regulations of their budget sources (e.g. ESIF), leaving little room and resource for designing other non-financial support services than the ones resulting from the agencies participation in EEN and H2020. Comparatively, Innovate UK has leveraged its EEN budget effectively in order to expand the available resources for providing advisory and support services, as described in case study 6 (see page 34).

3.6. Building the evidence base on the impact of advisory and support services

A 2014 study of evidence on the impact of technology and innovation advisory services found that they 'provide positive benefits for participating firms: reductions in costs, improved quality, reduced waste and improved environmental performance, higher productivity, and new product development and innovation. These services have a role in correcting market and systems failures, by providing information and support that help innovative businesses and entrepreneurs that might otherwise struggle to develop their ideas, products and services.

Most of the agencies in this study regard advisory and support services as a significant and impactful part of their offer, as do the beneficiaries of these services. 15 Yet it is still challenging to gather good evidence of this, and evaluation processes remain underdeveloped. Only 10 of the 24 agencies surveyed apply tools to assess the impact of these services, in part due to the difficulty in separating them from other activities. Qualitative evidence about the impacts of these services for companies and other beneficiaries' growth and innovation performance is therefore important.

According to the observations of survey respondents, the most valuable services for their beneficiaries are those that are embedded in financial support - including mentoring, coaching or the development of a company's innovation strategy roadmap - and those that are as tailored to the needs of individual beneficiaries as possible.

For example, in the view of TTGV Turkey, companies mostly benefit from programmes or support which increases their innovation capacity; financial support mechanisms lacking the support to build capacity do not deliver the expected results, while services and programmes teaching them how to lead their innovation processes create most value and long term impact.

¹⁴Shapira P and Youtie J (2014) Impact of Technology and Innovation Advisory Services, Nesta Working Paper No.13/19, available <u>here</u>.

¹⁵For details see the reports of the three discussion events held by the Taskforce



CASE STUDY 6:

Innovate UK's embedded EEN processes and capabilities

Innovate UK is the UK's innovation agency. It supports productivity and economic growth by funding and connecting businesses so that they can realise the potential of new ideas. Innovate UK has embedded Enterprise Europe Network (EEN) services and support across its different programmes, as a means of developing its service offer to companies and ensuring they are local to the client.

Building a consortium to multiply the reach and impact of support services

When Innovate UK became the Coordinator of the England, Northern Ireland and Wales Network (ENIW) in 2015, it started working to more effectively embed and develop the support services currently provided by the Enterprise Europe Network (EEN). Now, with a greater focus on innovation and an extensive global reach, the EEN ENIW provides a large cadre of advisers on the ground to support ambitious SMEs as they progress along the innovation value chain. The EEN ENIW consortia comprises 21 partners, involving around 265 people and 190 advisers, including universities, regional development agencies and enterprise agencies, as well as chambers of commerce and innovation centres. All SMEs receiving a grant from Innovate UK are contacted by their local EEN partner to understand their needs and then provided with relevant support or connected to other forms of public and private support.

Developing an embedded support offer

It was judged that SMEs and startups with high growth potential needed account management and access to intensive one-to-one support. This has led Innovate UK to develop the Innovate2Succeed (i2s) programme, which scales EEN services and support to around 1,000 UK companies per year identified as having high growth potential. The i2s programme offers between five and nine days of tailored one-to-one support to innovative SMEs to help them develop their innovation management capacity. The EEN innovation advisers draw on skills and capacities across the innovation ecosystem, including the Knowledge Transfer Network (KTN), the Catapult network of research and innovation centres, incubators and other support intermediaries. For example, they work with the UK's Intellectual Property Office (IPO) to deliver 'IP Audits' to SMEs that are beneficiaries of the i2s programme, to ensure they manage their IP effectively.

i2s is also a key component of the intensive support that EEN provides to companies involved in other Innovate UK programmes, including the Global Business Innovation Programme (GBIP). This helps businesses to explore the potential of overseas markets, and provides account management support to understand and exploit opportunities before and after a week-long international mission visit. To ensure that the companies identified with the very highest growth potential were best supported, an 18-month EEN Scale Up Pilot was initiated aimed at 30 innovative companies capable of achieving exponential growth (i.e. achieving Compound Annual Growth Rates of between 50-100% and above).

Recognising that scaleup potential companies have immediate and wide ranging needs, the pilot put in place a Board of eight highly experienced 'Scale Up Directors' to work with companies intensively, with each director acting as a single point of contact for a company, but drawing on the collective resources, skills and connectivity of the Board. The Directors have a mix of skills and expertise including funding and finance, IP, access to international markets, etc. They are also able to leverage support and international connections available through the Innovate UK 'family'.

Lessons and next steps

The bringing together of EEN services and with the support provided by Innovate UK required time to ensure the interfaces worked between the different programmes and that it was possible to share data. In providing more tailored support for high growth businesses, the challenges have been more around selecting the right companies. Whilst companies may look good on paper, it is only once an adviser meets with them that the true picture emerges. The selection process continues to evolve as more companies are selected and a better insight of the characteristics of high growth businesses is gained, such as ambition, hunger and focus. The results are starting to show. A mid-programme evaluation of i2s indicated significant improvement in speed to launch new products and overcoming key barriers, as well as high ratings for the professionalism and knowledge of the advisers. The EEN Scale Up Pilot is being mainstreamed into the EEN ENIW Consortium core service from April 2019 and will be delivered in partnership with the UK Scale Up Institute and the London Stock Exchange Global Elite Programme. The fact that the Network provides both innovation and internationalisation support means it is able to much more effectively bring all these elements together for business benefit.

SPIRIT Slovenia has developed a programme to support the strategic sustainable transformation of Slovenian companies, based on advisory and embedded support as part of financial instruments, that includes individual sessions with a company and group sessions for sharing experiences and lessons learned. A similar approach is followed by Innovation Fund Serbia, offering entrepreneurship training and individual sessions with advisors.

Innovate UK sees its efforts to connect an EEN adviser to each SME receiving a grant as being particularly impactful, which involves the provision of intensive support aimed at enhancing businesses' innovation management capacity.

CDTI Spain provides high value services for new applicants to its support instruments in a tailored way, including a one-stop-shop for information delivery on a large set of programmes and detailed advice on how to access the agency's funding opportunities. Innosuisse has a mentoring service for SMEs to support them in innovative project applications, and MITA Lithuania provides similar services focused on international R&D programmes. ISERD Israel judges that its programme of innovation mentoring for companies in traditional industries, by which they develop a strategy and new product lines, as offering particular value.

Networking and matchmaking support and brokerage events are considered to be high-value services by agencies too. Enterprise Ireland helps to find business partners for researchers, offering support through a commercialisation fund.

Export advice and support for building global collaborations and accessing international networks and targeted global markets are also judged to be impactful services, notably for agencies like Innovation Norway, Business Finland, Innovate UK and Enterprise Estonia. Start-up coaching (for which Innosuisse has a two-year coaching programme) and support for scale-ups (on which Innovate UK works intensively with a small group of ambitious high growth potential companies) have also been shared as examples of impactful services.

The SME-Instrument under Horizon 2020, which involves both funding and tailored mentoring support, and links NCPs and EEN officers' support, has been highlighted by most of the surveyed agencies as a European example of good practice, with impactful results. This instrument features the kind of embedded services that agencies identify as being

particularly valuable, given their potential to increase the impact of financial support.

Some agencies do attempt to measure the impact of advisory services using quantitative and qualitative methods, as illustrated by the Innovation Norway case study (see page 36).

Among the agencies that attempt to evaluate the impact of advisory and support services, more than half (6/10) use outcome evaluations, which can be based, for instance, on the success rates of submitted proposals for a national, European or international financial programme. Impact measurement, such as the growth rates of companies or employment rates of trained professionals/students is only carried out by four agencies. Customer satisfaction and perception audits are regularly undertaken by two agencies.

FFG Austria, TACR Czech Republic, PtJ Juelich and Enterprise Estonia perform qualitative impact measurement through direct questions or feedback requests to beneficiaries, or via direct observation of the supported beneficiaries' success in applications (e.g. in case they had counselling interviews). This is not done on a regular or even standardised basis, nor is it subject to specific performance indicators, but it is considered a valuable input for redesigning support services. Enterprise Ireland undertakes a more regular client satisfaction survey, every two years, with the same purpose.

For SPIRIT Slovenia, impact indicators of mentoring support at company level are defined during the mentoring sessions and measured during project implementation, in a tailored way, while impacts at state level are measured by the number of SMEs included in the programme and the increase in export activities.

Innosuisse also uses a flexible monitoring approach to assess the startups it supports through the agency's Start-up Coaching programme. This includes qualitative assessment of the coaching programs and also quantitative indicators such as employment growth and venture capital raised.

To a large extent, the impacts of advisory and support services are captured through agencies' programme monitoring practices, including ex-ante and ex-post evaluations, although they are rarely separated from measurements of the impact of financial instruments. In these cases, indicators include additional growth in value-



CASE STUDY 7:

Innovation Norway's approach to evaluation of advisory services

Innovation Norway is one of Norway's national innovation agencies. It was formed in 2004 following the merger of several government agencies, and supports startups and companies with growth and internationalisation through both financial and non-financial services. It has developed a clear evaluation framework for understanding the value of the advisory and support services it provides.

Developing a new model for advisory and support services

Since 2010, Innovation Norway has worked to build a customer-oriented service model that addresses the needs and challenges of its customers through a combination of services. Putting business obstacles and needs first, rather than trying to 'sell' a predefined set of services, has required a significant organisational mindset shift. Two initiatives are noteworthy. In 2010, all key accounts and advisers were trained to use the Osterwalder Business Model Canvas (a lean startup template) as a tool to support more iterative and open dialogue with customers. In 2017, a new model for services was implemented, aiming to provide more tailored support for Innovation Norway's customers. Each customer that receives Innovation Norway support has a 'program' of services designed to ensure progress, which is developed following a structured dialogue process that captures their needs and ambitions and establishes where they are currently. This is iterated and developed over time as the customer's needs change.

Understanding impact

Innovation Norway uses external consultants and researchers to evaluate both its 'standalone' advisory services and the 'embedded' advisory, guidance and follow up in its financial services and cluster programs. It does this in three ways. First, a survey is conducted one year after support is given to learn about the customer's expected outcomes and whether Innovation Norway's assistance is making a difference and changing behaviour, and then again four years after to learn about achieved outcomes such as increased competitiveness and the number of innovation projects implemented.

Second, Innovation Norway uses the four-year survey to ask customers whether they have received follow up contact and/ or support from the agency in the four-year period after a service has been delivered. There has been a significant increase in the share of businesses being followed up with, and Innovation Norway now reaches close to half of its customers. Through a comparative analysis, it has been found that customers receiving follow up perform better than those that are not followed up with (tracked through differences in perceived outputs four years after the services have been delivered), and that 94 per cent of them are satisfied with the follow up.

Third, Innovation Norway measures the impact of the international advisory services it provides through long-term econometric studies (using quasi-experimental and matched Difference in Difference techniques). Value added is growing faster for these companies compared to a control group of similar businesses, at a rate of six percentage points higher per annum over a three-year period. And finally, the agency launched its first Randomised Control Trial (RCT) in 2019, addressing the possible impact of different mentoring alternatives.

Lessons learned

Innovation Norway's follow-up, guidance and advisory services have delivered demonstrable impact, with a key lesson being that providing multiple services increases the probability of a company's success in creating more value added in Norway. There has also been a recognition of the need to strengthen internal competencies, which Innovation Norway has done by creating two new competence teams in addition to the financial advisory team which has been active since the merger in 2004. One is an internationalisation team with 11 specialised advisors helping 80 advisors abroad and all the key account managers at home, and the other is an innovation team with 19 specialist advisers based in Innovation Norway's regional offices that support current clients and follow up with previous clients to help them overcome obstacles and identify opportunities for further assistance from Innovation Norway.

-added (GVA), input additionality such as finance and funding raised and investment sources, increase in turnover, exports sales and number of companies exporting, level of risk-taking, number of jobs created and the degree of additional development of skills and competencies.

Bpifrance has specific indicators to measure the impacts of its SME and Mid-cap Accelerator programme, which include KPIs related to digitalisation and Industry 4.0, business activities abroad, deals with corporates, business partnerships and contracts signed, foreign implantation and investment fields and sources.

EEN follows its own evaluation procedures, with identified KPIs that officers need to comply with in order to report back to the European Commission. Some agencies - such as Innovate UK - have integrated a number of EEN evaluation procedures as part of their own broader approach to assessment while others - such as ANI Portugal - use EEN procedures only.

The activities of NCPs and their results are also extensively measured, although these usually relate to measurement of outputs rather than outcomes. Indicators include the number of revised/supported proposals, the percentage of supported proposals that were approved in H2020, the number of dissemination and matchmaking events held, attendance at those events, etc. CDTI Spain has similar KPIs to monitoring impacts of its support service for helping new applicants to access its own financial instruments.

3.7. Advisory and support services in the future

Evidence gathered from the survey and qualitative research indicate that advisory and support services that are embedded in financial instruments, together with the EEN services and the NCPs' activities, are at the core of innovation agencies' activities, and are the building blocks for the development of increasingly tailored and impactful services.

This is supported by analysis of the future intentions of innovation agencies. The majority of surveyed agencies (17 out of 24) state that they plan to offer additional services within the next one to three years. However, the improvements they want to make to their portfolios of advisory and support services for ensuring higher impact are not only related to enlarging the offer, but also to making

changes to the way that current services are delivered. Ideas for how to do this include:

- Systematically collecting data and evidence on advisory and support services, so as to clarify the service offer;
- Improving impact evaluations and connecting these with programme design;
- Redefining relations with the ecosystem through partner organisations, institutional entities, 'multipliers' (e.g. incubators, clusters, competitiveness centres, etc.), and/or private consultants who are likely to reach final beneficiaries and deliver part of the services or have complementary instruments, thereby redesigning or clarifying the agency's 'perimeter of action';
- Moving from an 'instrument-centric' approach to an 'innovator-centric' approach, by ensuring a greater integration of all the support and focusing on fewer businesses or beneficiary segments that have an ambition and potential for higher levels of growth;
- Improving digital services to allow for a 'multi-speed' approach to the support that is offered, based on wide online access to information for all potential beneficiaries, alongside a central team and advisers on the ground to work with high-potential businesses or specific beneficiary groups;
- Developing internal agency capabilities in delivering specialised services, in addition to managing the delivery of top-down programmes;
- Acquiring additional resources, for example, through hiring external experts to strengthen the advisory and support services offer;
- Strengthening acceleration and scale-up services as part of coaching and other early-stage support for innovators;
- Involving entrepreneurs in policymaking activities and the design of support programmes, to bring in the users' perspective;
- Increasing the dialogue with investors and becoming the main connectors between SMEs and large corporates;

- Implementing a more experimental approach and mindset to develop and test new services;
- Building up national strengths and competencies
 to complement rather than duplicate Europeanlevel services and offers. This could be achieved by
 strengthening EEN and H2020 support services together
 with sharing databases (e.g. of coaches) while continuing
 to provide decentralised and nationally or regionallytailored services.

Moving towards more active and innovative models of customer management is a common goal for many innovation agencies. The Key Account Manager (KAM) approach balances a supply-driven approach with a demanddriven response, based on a continuous dialogue with the beneficiary and the observation of their development path. Customer Relationship Management (CRM) tools were highlighted by a number of agencies as being increasingly important in the effort to gather and organise all the information and knowledge about beneficiaries within an agency, which are often spread across multiple internal units. For FFG Austria, the main challenge of shifting to an innovator-centric approach is to unify this information and approach their beneficiary based on the EEN-model of support, given their current lack of staff with experience of implementing EEN programmes.

Business Finland has a dedicated unit for KAMs, who work with companies that meet specific criteria, and signpost them to opportunities for specific support by other units at the agency, including for funding decisions. To achieve this, a common mindset needed to be developed and shared across the agency when approaching potential clients and the support they could get along the journey from the first contact through online services up to a KAM. Meanwhile, Luxinnovation uses the KAM model for a quarter of its beneficiary companies, after all entities go through the initial digital entry point. This approach is described in more detail in case study 8 (see page 39).

Among those agencies that are making the shift, Enterprise Estonia has a dedicated and personal client management system and has developed a system for segmenting their clients. Enterprise Ireland's approach (as described in case study 4) involves three types of engagement to match its clients' stage of development and deliver support that is tailored to their needs, while VLAIO Flanders requires a business case from the beneficiary in order to select the adequate instruments for support among all that the agency has available.

FFG Austria works on a two-level approach, currently building a central entry point for clients (i.e. a point for addressing all questions related to project application and funding programmes on a national and international level) and having specific strategic talks with key customers. FFG Austria also operates a Quick-check/Funding Pilot, where customers get a quick and high-quality answer related to funding opportunities.

Even among the agencies that are not currently shifting in this direction, TACR Czech Republic and Bpifrance, for example, are making efforts to intensify advisory and support services and have a more tailored and flexible approach to their delivery. They are analysing ways to use European Structural Funds (ESIF) to this effect.

The processes and changes outlined above call for an adaptive, holistic and experimental approach to the design and delivery of advisory and support services. Focus group discussions during this Taskforce have indicated that in order for this approach to be feasible, the rules and procedures behind the funds to be used for advisory and support services also need to be adapted. Some of the agencies that are most proactively offering tailored and innovator-centred services have revenues of their own and national or regional

Shifting from a programme-centric approach towards an innovator-centric one is planned by - or already in progress within - at least ten agencies in the study: Business Finland, Enterprise Estonia, Enterprise Ireland, FFG Austria, Innovate UK, Innovation Norway, Luxinnovation, MITA Lithuania, RVO Netherlands and VLAIO Flanders. Another ten respondents do not believe this to be a realistic short-medium term goal for their agency: ANI Portugal, Bpifrance, CDTI Spain, Hamag Bicro Croatia, Innovation Fund Serbia, Innosuisse, ISERD Israel, PtJ Juelich, SPIRIT Slovenia and TACR Czech Republic.

¹⁶The EEN model is described in more detail <u>here</u>.



CASE STUDY 8:

Luxinnovation's approach to key account management

Luxinnovation is Luxembourg's national innovation agency. It offers a range of services to companies of every size, including providing networking opportunities, capability development, road mapping and project scoping services, and activities to facilitate R&D collaborations with research and technology organisations. Luxinnovation is currently trialling a new 'key account management' approach to supporting companies, offering a more tailored set of services.

Moving to an innovator-centred approach

Traditionally, Luxinnovation has had a strong 'instrument' focus, with different teams in charge of delivering specific services. In 2018, it experimented with a new way of delivering services, based on an account management approach, to explore more efficient methods for supporting companies. The principle is that each qualified enterprise has a lead contact point within the agency and a backup with complementary skills. This approach is implemented for all enterprises with a substantial growth potential (i.e. companies that are growing, have a real product or technology, and a team ready to work with Luxinnovation). The customer journey starts with a strategic roadmapping exercise. An action plan is built from the company's strategy, and relevant instruments or support schemes are identified accordingly. The main objectives and key results to be achieved are agreed between the company and Luxinnovation. Key results can be defined as the company's expected level of performance, at a certain time, using indicators that are relevant to their business.

Developing new organisational skills and competencies

The key account management process has been a good way of building trust with companies. Luxinnovation now has a better understanding of individual enterprises' needs and can proactively offer the most relevant services (or signpost to other institutions if they need something that is not offered by the agency). This company-centric approach, moving away from a more ad hoc project-focus, has paved the way to create an enterprise monitoring system. Luxinnovation will increasingly be able to prepare funding decisions on the expected or actual achievements of companies, rather than just considering a project's potential merits. Luxinnovation is also building expertise in terms of assessing an enterprise's capability to execute their plans. This has created opportunities for the development of new advisory services, such as conducting risk assessments to help innovators blend funds from banks or business angels, in addition to public grants.

The key account management system has created a new set of challenges. Luxinnovation staff will increasingly have to understand a company's strategy, value creation processes and other aspects of their business, in order to develop relevant support action plans and to monitor progress. This requires a different set of skills than the ones related to administering funding instruments. The needs of a company might change over time, which means that the skills and competencies of advisors may also have to change over time. There is also a challenge in terms of time and resources: the account management approach requires more intensive and strategic consideration of a company's development.

Lessons learned and next steps

This approach is still being developed and internal processes have to be further defined. It is an evolutionary process with controls and feedbacks allowing for continuous improvement. Luxinnovation wants to draw all conclusions from the account management experiment before changing its communication towards targeted beneficiaries. The objective in 2019 will be to communicate on an 'enterprise engagement model', thus allowing each company in Luxembourg to easily understand what they can get from the agency.

funds provided by their governments, which usually are subject to less rigid rules, features, goals and milestones than the ESIF. For a few agencies that extensively rely on ESIF as the source of their support for innovators, the need to comply with EU rules and procedures has a strong effect on how they deliver these services, requiring them to a assume a quantitative mindset based on programmatic figures and goals.

Essentially, two different groups of agencies can be seen within the surveyed group: those with sufficiently flexible budgets to enable a transition to providing more tailored support to beneficiaries with high-growth potential, and those that are subject to a more programme-based mindset that encourages a more fragmented provision of support.

In order to bridge this gap, and to facilitate the delivery of close and tailored support for innovators that is based on national and regional experience, knowledge, means and activities, there is a strong case to be made for building the capacity of innovation agencies to experiment and adapt, and to make use of their available funds in that capacity. This may require action at both the European level - in terms of considering the rules and procedures that innovation agencies must comply with - and at the national or regional levels - in terms of building new skills and capabilities within innovation agencies.

QUALIFICATIONS, SKILLS AND CAPABILITIES OF INNOVATION AGENCIES

The previous section highlighted the fact that many innovation agencies have started to offer a wide range of advisory and support services in addition to providing financial support, and that they are doing this in an increasingly responsive and innovator-centric way. What is less well understood is the ways in which these shifts are currently affecting the qualifications, skills and human resources capabilities of innovation agencies' staff, and how they may do so in the future. The survey therefore aimed to gather additional, new data on the backgrounds, skills and competencies of agency staff, as well as their future intentions and needs in this area.

4.1 The educational and professional backgrounds of agency staff

Among the 24 surveyed agencies, 18 declared that they collect data on their staff's formal qualifications, i.e. the educational and professional background of their human resources, although for some this process of information gathering had not always been part of their human resources strategy and, thus, not collected in a structured way. The following tables give an overview of the data provided in the survey about the formal level of education among innovation agencies' staff, in terms of the degree of education (Table 4) and the thematic area of studies (Table 5). These data were collected as ranges, rather than total numbers.

Table 4: Educational background of innovation agencies staff (in terms of degree of education)

Agency name	Postgraduate	PhD MBA		Other specialist technical qualifications
PtJ Juelich	25-50%	25-50%	25-50%	0-25%
ISERD Israel	75-100%	0-25%	25-50%	25-50%
Innovation Norway	50-75%	0-25%	25-50%	0-25%
NKFIH Hungary	75-100%	0-25%	0-25%	0-25%
CDTI Spain	75-100%	0-25%	0-25%	0-25%
Luxinnovation	75-100%	0-25%	0-25%	0-25%
Enterprise Estonia	75-100%	0-25%	0-25%	0-25%
Innovation Fund Serbia	75-100%	0-25%	0-25%	0
Hamag-Bicro Croatia	75-100%	0-25%	0-25%	0
ANI Portugal	50-75%	0-25%	0-25%	0-25%
Business Finland	50-75%	0-25%	0-25%	0-25%
FFG Austria	50-75%	0-25%	0-25%	0-25%
VLAIO Flanders	50-75%	0-25%	0-25%	0-25%
TTGV Turkey	50-75%	0-25%	0-25%	0
TACR Czech Republic	50-75%	0-25%	0-25%	0
Bpifrance	75-100%	0-25%	0-25%	0-25%
SPIRIT Slovenia	0-25%	0-25%	0	0-25%
MITA Lithuania	75-100%	0-25%	25-50%	0-25%

According to Table 4, more than half of the staff at most innovation agencies hold a postgraduate degree, and less than a quarter have other types of qualification. This means that only a few agencies appear to have staff with a more diversified set of educational backgrounds. PtJ Juelich in Germany is one of those examples. It is also unique among the group for the fact that more than 25 per cent of its staff hold PhDs. Relatively few agencies have large percentages of staff with MBA qualifications, with PtJ Juelich, ISERD Israel and MITA Lithuania being notable exceptions. Other specialist technical qualifications (e.g., medical or engineering degrees) are similarly scarce.

Of the 18 agencies with data on the educational background of their staff, only 15 report collecting data on their staff's thematic areas of study. According to Table 5, most innovation agencies have human resources with educational backgrounds in five thematic areas: humanities, social sciences, natural sciences, formal and exact sciences or applied sciences.

There are few clear patterns in this data, although it is notable that the only thematic area common to every agency is social sciences (e.g. economics, law, anthropology or psychology). Following social sciences, applied sciences (e.g.,

Table 5: Educational background of innovation agencies staff (in terms of the thematic areas of study)

Agency name	Humanities	Social sciences	Natural sciences	Formal/exact sciences	Applied sciences
SPIRIT Slovenia	0-25%	75-100%	0-25%	0	0
Innovation Fund Serbia	0-25%	50-75%	0-25%	0	0-25%
MITA Lithuania	0-25%	50-75%	0-25%	0-25%	0
Hamag-Bicro Croatia	0-25%	75-100%	0-25%	0-25%	0-25%
Innovation Norway	0-25%	50-75%	0-25%	0-25%	0-25%
ANI Portugal	0	25-50%	0-25%	0-25%	0-25%
ISERD Israel	0-25%	25-50%	0-25%	0-25%	0-25%
Luxinnovation	0-25%	0-25%	0-25%	0-25%	0-25%
NKFIH Hungary	0-25%	0-25%	0-25%	0-25%	0-25%
Bpifrance	0-25%	0-25%	0-25%	0-25%	0-25%
Business Finland	0-25%	25-50%	0-25%	0-25%	25-50%
CDTI Spain	0-25%	25-50%	25-50%	0-25%	25-50%
ENEA Italy	0-25%	0-25%	25-50%	25-50%	25-50%
FFG Austria	0-25%	0-25%	25-50%	25-50%	25-50%
TTGV Turkey	0-25%	0-25%	0	0	25-50%

engineering and technology development) seems to show a higher concentration of the agencies' human resources. On the contrary, humanities (e.g., history, literature, languages, arts) is the only thematic area where no agency has more than 25% of their staff trained.

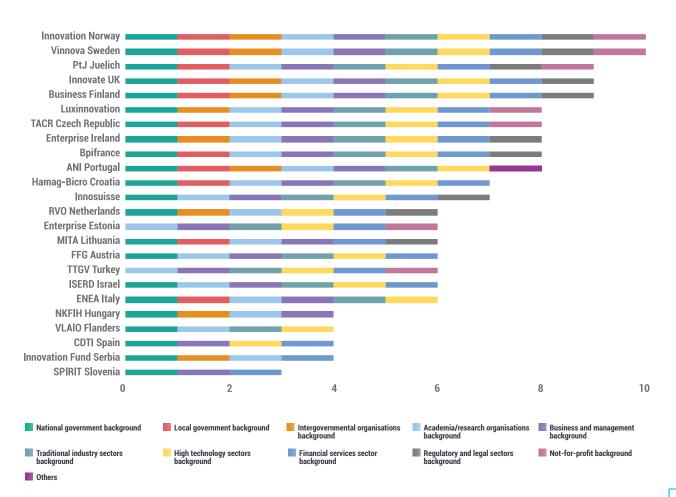
Overall, three groups can be identified, mainly determined by the balance between social sciences and the other thematic areas:

 a group of agencies that have stronger human resources capabilities in social sciences (with more than 50% of their staff trained in this area): SPIRIT Slovenia, Innovation Fund Serbia, MITA Lithuania, Hamag-Bicro Croatia and Innovation Norway and, to a lesser extent, ANI Portugal;

- a group of agencies with a good balance between all 5 thematic areas: Luxinnovation, NKFIH Hungary, Bpifrance and, to a lesser extent, ISERD Israel; and
- a group of agencies with a higher number of staff in other thematic areas (i.e., natural sciences, formal/exact sciences and applied sciences) than social sciences: Business Finland, CDTI Spain, ENEA Italy, FFG Austria and TTGV Turkey.

The survey also asked about the professional backgrounds of agency staff, to get a better sense of the kind of experiences, cultures and ideas that may shape the people working in innovation agencies (Chart 6).

Chart 6:Professional backgrounds currently incorporated by innovation agencies



National government and academia/research organisations are the two most common professional backgrounds of the staff of innovation agencies. These are closely followed by staff with previous work experience in business and management, high technology sectors and the financial services sector. Relatively few agencies have staff with experience of working for not-for-profit and intergovernmental organisations, or in regulatory and legal sectors. According to Chart 7, only TTGV Turkey and Enterprise Estonia do not employ staff with experience of working in national government, while CDTI Spain and SPIRIT Slovenia do not have staff who have come from academia or research organisations.

Although these data do not provide information on the weight given to each professional background within the surveyed innovation agencies, it shows that there are high levels of diversity within agencies in terms of professional backgrounds, with half of the group having staff with more than six different types of professional experience. This reinforces information gathered on the profile of innovation agencies, indicating a wide range of missions and different organisational structures.

Apart from PtJ Juelich, which still provides programme-based support, and Vinnova Sweden, for which there is not enough data, all other innovation agencies do seem to have a closer proximity to their beneficiaries when it comes to the support they provide. However, as mentioned in the previous chapter, with agencies still in the process of testing what works regarding the provision of advisory and support services (with some opting for outsourcing strategies of services and the competencies needed to deliver them), there does not seem to be a direct link between the provision of more personalised support to beneficiaries and a wider range of professional profiles incorporated by the agencies.

Qualitative evidence from interviews and focus group discussions also showed that almost all surveyed agencies are looking to increase the recruitment of new staff, especially those with experience of business and management and high technology sectors, which shows that previous experience working for companies, especially high tech companies, is becoming a more relevant professional background for innovation agency staff. Further, a good knowledge of businesses, industries, technologies and trends in innovation are seen as critical to the provision of impactful

advisory and support services tailored to customers' needs. This is more evident among the agencies that already provide a more customised form of support to their beneficiaries, where the innovator's needs are at the centre of the agency's intervention.

However, this is also an important future investment area for agencies that are currently more focused on project support. For example, according to Chart 7, RVO Netherlands, VLAIO Flanders and Innovation Fund Serbia do not currently have staff with previous experience of working for companies, while MITA Lithuania and SPIRIT Slovenia do not incorporate human resources with professional backgrounds in high technology sectors. However, all of these agencies agree on the importance of a shift towards a more customer-centric approach and therefore aim to start recruiting staff with these professional backgrounds in the near future.

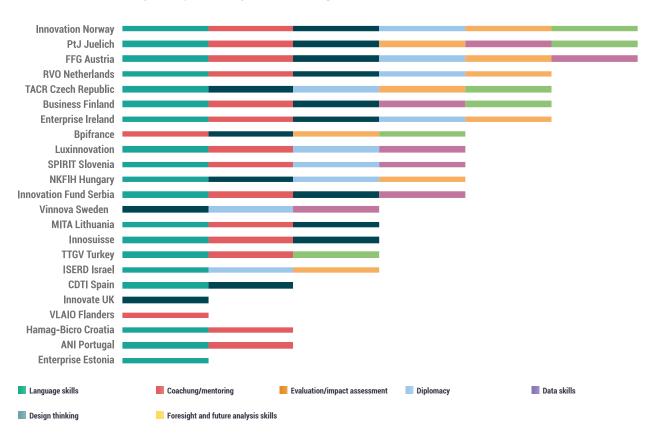
4.2. Current and sought formal skills

As well as formal qualifications, the survey and qualitative research sought to identify the range of skills and capabilities that innovation agency staff possess, with a focus on seven categories of formal skills: language skills, coaching and mentoring, evaluation and impact assessment, diplomacy, data skills,, design thinking, and future and foresight analysis.¹⁷

According to Chart 7, most innovation agencies have fewer than five of these skill sets represented within their workforce, with language skills, coaching and mentoring and evaluation skills being most common. One possible explanation might be the fact that more than two thirds of these agencies outsource the delivery of many of their advisory and non-financial support services.

¹⁷This is a non-exhaustive selection. The seven formal skills considered in this survey - language skills, coaching/mentoring, evaluation/impact assessment, diplomacy, data specialists, design thinking and foresight and future analysis skills - are the result of an attempt to anticipate the new set of skills that innovation agencies would need to incorporate in the near future, in order to provide more impactful advisory and support services. This is a direct result of previous meetings with international and European stakeholders, where new roles for innovation agencies have been identified.

Chart 7: Formal skills currently incorporated by innovation agencies



Qualitative research provided more context for these findings, with agencies identifying language skills as essential for the development of international activities and support, which encompass international innovative policy and practices, trade promotion, foreign direct investment activities, communication with the agency's offices abroad, the coordination of international programmes, and competitive international project evaluation, among others. Many agencies currently provide highly intensive coaching and mentoring services to their beneficiaries and thus recruit for this expertise. And while the assessment of advisory and support services remains underdeveloped, the need for individuals with experience in measuring and evaluating the impact of different interventions is common to many agencies.

Only a small number of agencies have staff with data skills, design thinking competencies and skills relating to foresight and future analysis, although most of them have identified these competencies as future needs in order to provide useful advisory and support services to their beneficiaries. The dialogue with innovators in Taskforce events have helped to shape discussions about these needs.

The agencies that have the broadest set of formal skills are among those who seem to be the most diversified in terms of the professional background and experience of their staff. This is the case of Innovation Norway and PtJ Juelich. Qualitative evidence shows that agencies moving to a more responsive and innovator-led approach to innovation support have also been the ones more focused on revising the set of skills and competencies they are recruiting for. This is possibly due to an increased awareness that they need to strengthen their in-house capabilities (or access external resources) to deliver adaptive services.

Innovation Norway reported that it previously focused on recruiting professionals mainly with backgrounds in business, industry and technology, while 'specialist' staff were hired for the delivery of specific R&D and innovation programmes. However, the recent shift to a more innovator-centric approach has created the need to diversify skills and competencies horizontally, i.e. bringing additional expertise to other services and programmes. Innovation Norway is therefore currently looking for human resources with backgrounds in applied sciences (e.g. engineers) and experts in emerging technologies. This agency is both one of the

most diversified in terms of professional backgrounds and formal skills incorporated by their current staff. Innovate UK, Business Finland, Luxinnovation, VLAIO Flanders, FFG Austria, RVO Netherlands, Enterprise Ireland and Enterprise Estonia have undergone similar shifts as their approach and delivery models have become more tailored.

When looking at beneficiaries' needs from this new perspective, all these agencies agree that they need to challenge businesses and innovators to a much greater extent, which ultimately means the incorporation of skills and competencies that encompass customer account management, coaching/mentoring skills and understanding the customer's needs (e.g. the ability to advise on IP rights and accessing international markets, etc.). This requires building customer relationships based on confidence and mutual trust, asking innovators the right questions and developing capabilities to define an action plan/business model and to monitor its progress, among others. Data expertise and foresight and future analysis are also considered as future skills that are worth developing, as innovation agencies are asked to better understand their innovation ecosystems and be able to engage with other service providers.

In spite of the differences between agencies in terms of their service delivery models, those which are still focused on a programme or project-centric approach to customer support also recognise an increasing need for the abovementioned skills and competencies. For instance, TACR Czech Republic, although mostly still providing project-based support, is trying to pay more attention to the way advisory and support services are offered to beneficiaries and, thus, is concentrating its efforts on strengthening current skills and competencies, such as coaching/mentoring skills, and recruiting for new ones, such as foresight and future analysis skills. The agency's new project 'Open Agency' will focus on these kind of services, mainly through the establishment of regional advisory offices, for a more direct relationship with their beneficiaries.

Overall, its seems that the skills and competencies required by innovation agencies are changing and a more diverse combination of capabilities is needed as the support to businesses and innovators becomes more tailored. In order to provide more impactful advisory and support services that serve their customers' needs, agencies must strengthen current in-house capabilities, either through training or by hiring new staff with more specialised skills and competencies - as illustrated by the case of Innovation Norway, where the trend over the last years has been to insource rather than outsourcing the needed skills and competencies - or opt for the externalisation of that support, for instance, through a solid network of 'multipliers', which has been the strategy of Innovate UK.

4.3. Staff's current and sought soft skills

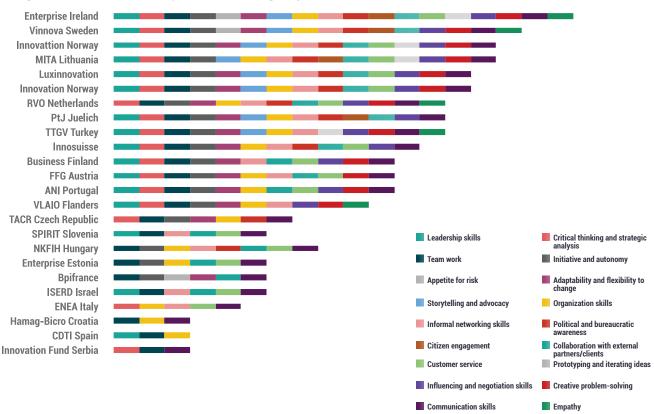
To complement formal skills, developing a range of soft (informal) skills are an increasingly important consideration for innovation agencies, especially when trying to combine all the different educational and professional backgrounds and formal skills and competencies needed to effectively provide impactful advisory and support services, and provide closer support to businesses and innovators across Europe.

Based on job descriptions for vacancies in the surveyed innovation agencies, as presented in Chart 9, team work, communication skills and organisation skills seem to be the currently most required soft kills for the agencies' staff, while citizen engagement, prototyping and iterating ideas and risk appraisal are yet to gain relevance within many innovation agencies.

According to Chart 8, Enterprise Ireland reports the most diverse set of soft skills currently sought. This agency has recently introduced a new way of working with client companies (see case study 5) that allows its staff to engage at each stage of a company's development in order to accelerate their international growth. Its client engagement model, based on a team-to-team approach, may explain why Enterprise Ireland incorporates a wide variety of soft skills, as they are considered to play a key role in the way the client receives the level of support appropriate to its stage of development and growth.

In focus group discussions, agencies identified a large range of soft skills as being important for the delivery of impactful services, including: communication skills, an ability to listen to customer's needs (i.e. empathy), analytical/strategic thinking, the ability to connect/network (e.g. building ecosystems, organising networks of partners cooperating to support a customer, or connecting with relevant stakeholders), a sense of initiative and autonomy, teamwork, conflict management and negotiation skills (e.g. an ability to

Chart 8:Sought soft (informal) skills per innovation agency



navigate conflicting demands, such as those coming from Ministries versus beneficiaries of the support), the ability to work with data (namely, the ability to work and present information), good writing skills as well as adaptability to different situations and stakeholders. These seem to overlap with the professional backgrounds and formal skills and competencies that agencies seek to also incorporate in the near future for a higher impact when providing advisory and support services.

However, the shift towards a more innovator-centric approach may not imply a drastic change in the profile of staff within some agencies, but rather a change in the way those services are provided to beneficiaries, and the mindset of those delivering them. This is Luxinnovation's case currently, as the agency is restructuring the way its advisory and support services are provided, as well as that of Enterprise Estonia (case study 9, see *page 48*), which takes an experimental approach to the advisory and support services it provides and has the ability to redesign them according to feedback provided by their beneficiaries.

Quantitative and qualitative data does not entirely confirm the initial hypothesis that agencies with more in-house skills would be those providing the most tailored and impactful advisory and support services to their beneficiaries. This is because those that provide a more personalised set of services may opt for the outsourcing of all or of part of those services, which would, in turn, reflect on the low number of specific skills and competencies incorporated by the agency's staff or foreseen as future needs.

Moreover, innovation agencies also appear to be very different in the way they incorporate these capabilities in-house. Some have created specific teams, with specific skills and competencies, instead of having these capabilities dispersed in the organisation. For example, RVO Netherlands established a new directorate in 2017 within the agency specifically tasked with giving information and advice to their beneficiaries. Other agencies have opted for a more horizontal approach to service delivery and the incorporation of skills and competencies, like Innovation Norway. Both these agencies pursue segmentation strategies and, together with Business Finland, MITA Lithuania, FFG Austria and Vinnova Sweden, are the most diversified in terms of incorporated skills and competencies by their staff. However, the same is also true for Enterprise Ireland, which does not actively segment, as well as for PtJ Juelich and TACR Czech Republic, which are also still mainly focused on project support.



CASE STUDY 9:

Enterprise Estonia's processes for experimentation

Enterprise Estonia is the Estonian government's innovation agency, with responsibilities for promoting business and regional policy. It offers a range of financial and non-financial support for entrepreneurs, research organisations, the public and non-profit sectors. Enterprise Estonia takes an experimental approach, scaling up programmes that work, and closing down those that don't.

An experimental approach

Enterprise Estonia believes it is crucial to monitor the performance, execution and popularity of the services it provides. If services work, they are kept in the agency's portfolio and developed further and if they don't, they are shut down. This approach enables learning about what does and doesn't work. For example, one key discovery was that short one-day trainings for large audiences are less effective and productive than more personalised and practical trainings that have a longer duration.

Most services do not have an observable short-term economic impact, so decisions about which programmes to take forward are based on a structured process of feedback from clients, the observations of client managers, communication with other stakeholders (such as professional associations) and regular market research. Until 2018, Enterprise Estonia used the NPS tool (Net Promoter Score) to gather feedback from clients. In 2019 they are introducing a CSAT approach (Customer Satisfaction Score) to provide more detailed feedback on the various aspects of a service delivery.

Challenges and opportunities

Being experimental brings both challenges and opportunities. A key challenge for Enterprise Estonia is anticipating and overcoming bottlenecks in the market in the early stages of innovation. Good knowledge and understanding of the markets and economy is required to be able to do this well and Enterprise Estonia is currently developing its in-house analytical capacity to address this challenge. Taking an experimental approach offers clear advantages also. Developing services that respond quickly and flexibly to market needs and create new opportunities for clients can help to generate economic impact. This approach helps to develop an organisational reputation for competence and leads clients to view the agency as a trusted partner, rather than just a source of finance. At a time of decreasing budgets, it is important that Enterprise Estonia uses its resources in an effective and efficient way.

Lessons learned

Enterprise Estonia has taken a number of lessons from its experimental approach:

- It is much easier to develop or redesign services in response to bottom-up demand from stakeholders and the market.
 If the initial idea for a service doesn't come from the market, it must be taken to the field and tested, otherwise it may not be understood or rejected by those it is intended to support;
- A flexible regulatory system is crucial to being able to experiment quickly with the design of support programmes. It is also important to have a strong relationship with relevant government ministries. Enterprise Estonia is trusted by government and has a lot of freedom to act and react. It has achieved this by being open about its processes and through regular engagement with partners:
- Being experimental starts with the mindset of an agency's staff. It is important to select innovative and active programme managers who are not afraid of change and trying new approaches, and who have fresh ideas for tackling challenges.

CONCLUSIONS AND RECOMMENDATIONS FOR THE FUTURE

Innovation agencies are looking to widen and improve the portfolio of advisory and support services they provide, either with in-house resources or by outsourcing part of the offer to other, more specialised, entities. Their 'perimeter of action' is being challenged and reshaped, based on a perceived trade-off between resources and impacts, due to limited and informal evaluation procedures currently in place for this domain of their activity.

The shifting 'perimeter of action' calls also for an improved relation with the innovation ecosystem, namely through the clarification and strengthening of the collaboration with other stakeholders, with complementary missions and who are potentially better positioned to provide innovators with certain kinds of support. Learning with and from other agencies and actors in the ecosystem, including other service providers, is therefore a valuable stepping stone for intensifying and improving the support that is offered.

Qualitative assessments and the direct experience of innovation agencies show that advisory and support services can have a great impact on supporting innovators to reach their potential growth, especially those services that are embedded in financial support instruments. A shift was observed in some of the surveyed agencies away from a 'programme' or 'project-centric' approach to innovation support and towards an 'innovator-centric' model, based on the provision of services that are tailored to beneficiaries' overall capabilities and needs. This calls for an increasing segmentation of clients, allowing agencies to allocate a higher share of resources to fewer entities with high potential growth. This simultaneously calls for an improved capacity to offer more general and (primarily) digital services to ensure wide reach across the innovative economy.

Two distinct groups were identified during the focus group discussions among the surveyed agencies: namely, between a set of agencies that have sufficiently flexible budgets to allow for this holistic approach to be implemented, and a set

of agencies with more restricted budget sources, especially those that mostly manage ESIF budgets. The need to comply with EU rules for ESIF implementation tie these latter agencies to a less flexible and more programmatic-oriented approach to innovation support.

This brings the risk of a diverging capacity for innovation support across Europe, which is problematic in view of Horizon Europe's desired model of a continuous pan-European capacity that makes use of national/regional expertise for a decentralised and closer intervention. If this vision is to be realised, innovation agencies will require more freedom to manage and apply their own budgets, regardless of the source of this funding.

A better documented and more formalised advisory and support offer within innovation agencies could bring benefits to the assessment of impacts and allocation of budget to this domain of activities. Agencies should invest more in gathering quantitative and qualitative evidence on the impacts of their activities, as well as share more examples of best practice, such as the case studies included in this report.

The impacts of advisory and support services are also highly dependent on agencies' incorporation of a wider range of professional backgrounds, formal and soft skills and competencies. Overall, it seems that the skills and competences required by agencies are changing and a more diverse combination of capabilities is needed as the support to businesses and innovators becomes more tailored and demand-driven. This is similarly true agencies that remain focused on more project-oriented support, if they are to improve their set of advisory services. Investing in foresight and upgrading of skills is a way to adapt to a changing environment and increase agencies' performance in providing services, as the skills needed for offering advice are different from the ones needed for programme management.

While not all the surveyed agencies collect information about

their staff's educational or professional backgrounds, the analysis of this information from the ones that do has shown that some agencies, including some that are moving towards an "innovator-centric" approach to support, already have a relatively balanced and diversified set of skills, qualifications and backgrounds.

On the other hand, for a group of others the staff's profile is more uniformly composed of postgraduates to a great extent coming from social sciences (though with specific exceptions because of the thematic missions that some of the surveyed agencies pursue). On its own, this profile is generally relevant for competent management of programmes, mostly from a financial management perspective, but it can be challenging for delivering more adaptive, tailored advisory services that call for expertise in specific areas, sectors, technologies, innovation management and other aspects. An innovator-centric approach calls therefore, for complementary competencies, backgrounds and experiences to this profile.

Given that information on impact measurement is scarce, this survey could not conclude whether agencies with more diverse in-house skills or with any specific kind of skills would be performing better in providing the most impactful advisory and support services to their beneficiaries. While some opt for outsourcing part of their services, thereby relying on a trusting network of skilful 'multipliers', others may decide to insource most services and therefor integrate new capabilities. Some agencies have pointed out the benefits in not insourcing all services, but clarifying their "perimeter of action" instead, before identifying the skills and competences they need to develop.

Overall, this research has helped to map the current state of play and trends across TAFTIE member agencies with respect to the provision of advisory and support services. It has generated new evidence and insights that can be taken forward and built on and has revealed the areas where further research and collaboration between agencies is required. It is hoped that this will inform the development of ideas at both the European and national levels about how to develop more complementary and joined up support for innovators in the future.

Bibliography

[Anon.]. The Catapult Programme.

Available **here**.

Bound, K. and Glennie, A. (2016). *How Innovation Agencies Work: International lessons to inspire and inform national strategies*. Nesta. London.

Available **here**.

Breznitz, D., Ornston, D. and Samford, S. (2018). *Mission critical: the ends, means, and design of innovation agencies*. Industrial and Corporate Change. 27, Issue 5: 883–896

European Commission [n.d.]. *National Contact Points for Horizon 2020*. Available **here**.

European Commission [n.d.]. *About Enterprise Europe Network*. Available **here**.

European Commission [n.d.]. *What you need to know about Horizon 2020 calls*. Available **here**.

European Commission [n.d.]. *Enhanced European Innovation Council (EIC) Pilot*. Available **here**.

European Commission [n.d.]. *Support for Business Innovation*. Available **here**.

Innovate UK [n.d.]. *About KTN*. Available <u>here</u>.

Roberts, J. (2018). Horizon Europe will connect the public to European science - Carlos Moedas. *Horizon - the EU Research & Innovation Magazine*.

Available **here**.

Shapira, P. and Youtie, J. (2014). *Impact of Technology and Innovation Advisory Services*, Nesta Working Paper no.13/19. Available **here**.

Annexes

Annex 1 Glossary

The definitions included in this Glossary are only for the purpose of better understanding the terms that can be found at this survey and do not, at any time, represent the most comprehensive or official definition of the term.

Advisory and support services (non-financial support) are not direct financial incentives to R&I, such as business coaching, mentoring, business management advice, training, knowledge-brokering or matchmaking activities, innovation skills training, etc.

Clusters mean groupings of independent entities - e.g. startups, SMEs, research organisations - operating in a particular sector and region and designed to stimulate innovative activity by promoting intensive interactions, sharing of facilities and exchange of knowledge and expertise and by contributing effectively to technology transfer, networking and information dissemination among the clustered entities.

Customer is the beneficiary of an innovation agency, regardless of its type (e.g. large companies, SMEs, midcaps, micro-enterprises, start-ups, spin-offs, individual entrepreneurs, universities/academic researchers, research/interface/competence centres, incl. incubators, clusters, government departments, investors, non-governmental/civil society organisations.

Education background refers to the knowledge or training a person had when attending a formal education. Types of educational background can be as follows: humanities (e.g. history, literature, languages, arts), social sciences (e.g. economics, law, anthropology, psychology), natural sciences (e.g. biology, chemistry, physics, earth sciences), formal/exact sciences (e.g. computer science, mathematics, statistics) and applied sciences (e.g. engineering and technology development).

Evaluation aims to understand to what extent and how a policy intervention corrects the problem it was intended to address. Evaluation here has a similar meaning as ex-post

impact assessment. This is part of the evaluation and management activity of the policy cycle and focuses on the effects of the intervention, its unintended effects and how to use the experience from this intervention to improve the design of future interventions. Types of evaluation can be as follows: formative evaluation (to identify whether a programme/activity/service is needed and to set priorities/ goals), process evaluation (to monitor processes and procedures of a programme/activity/service while it is being implemented), outcome evaluation (to generate data on results of specific programmes/activities/services and the degree to which those outcomes are attributable to the intervention itself), impact evaluation (to assess the overall impact of specific programmes/activities/services from start to finish), economic evaluation (to measure the economic benefits of a programme/activity/service against its costs) and organisational evaluation (to assess the overall impact of the agency).

Formal qualifications, i.e., professional qualifications meaning diplomas, certificates and other evidence issued by a competent authority that certify the successful completion of formal education (e.g., BA or MA degrees, PhD, MBA).

Innovation intermediaries are the entities that facilitate and coordinate innovation by providing the bridging, brokering and knowledge transfer necessary to bring together the range of different organisations and knowledge needed to create successful innovation. These can most commonly be business accelerators, incubators, research/interface/competence centres.

Large company is a company greater than or equal to 250 employees, regardless of revenue, or, if the number of employees is unknown, then with a revenue of greater than or equal to 50 million euros/year and liquid active greater than or equal to 43 million euros/year. Companies that do not fulfil these criteria are considered Small and Medium Sized Companies (SMEs).

Micro-enterprise is a company with less than 10 employees and with an annual business volume or total annual balance that does not exceed 2 million euros.

Mid-cap is a company with a market capitalisation between \$ 2 billion and 10 billion. As the name implies, a mid-cap company falls in the middle of the pack between large-cap (with a market capitalisation of more than \$ 10 billion) and small-cap companies (companies with a relatively small market capitalisation, generally between \$ 300 million and \$ 2 billion). There is no common EU definition of mid-cap companies, since a company's stock (generally classified as large cap, mid cap or small cap) depends mostly on brokerages. However, a mid-cap is used to describe a company whose shares have a middle-size total value. This concept should not be confused with the definition of SME - while SMEs are defined as having fewer than 250 employees, mid-caps are broadly said to have between 250 and 3000 employees.

Mission-driven R&I activities or support is when an entity has as its main goal to coordinate or develop frontier knowledge responses to specific large-scale societal missions and challenges in areas like defence, energy, health etc. (e.g. DARPA in the USA). A mission or challenge-based innovation agency should focus on providing a solution, an opportunity, and an approach to address the numerous challenges that people face in their daily lives, at a local, regional, national or international level, depending on the agency's scope and focus.

Private agency refers to an agency that is totally independent from the Governmental apparatus, directly reporting to a private(s) shareholder(s).

Public agency refers to a state-owned agency, directly reporting to a state entity (e.g. Ministry, Government).

Public-private agency refers to a semi-public agency, with a cooperative arrangement between two or more public and private sectors. This is normally known as a public-private partnership between the Government and private shareholders of the agency.

Research and innovation (R&I) promotion activities or support include all financial (e.g. grants, loans, equity financing, innovation vouchers, challenge-based funding) and non-financial activities (e.g. coaching, mentoring, matchmaking, proposal-writing support, internationalisation services) to promote and support applied research.

Research/interface/competence centres are industry-led collaborative research entities (entities established and led by industry and resourced by highly qualified researchers associated with research institutions) who are empowered to undertake market focused strategic research for the benefit of industry.

Small and Medium Sized Company, i.e., SME is a company with up to 250 employees, regardless of revenue or, if the number of employees is unknown, then with a revenue that does not exceed 50 million euros (does not exceed a total annual balance of 43 million euros). Normally, a small size company has up to 50 employees and an annual business volume up no more than 10 million euros and a medium size company has between 50 and 250 employees and an annual business volume of no more than 50 million euros (liquid active of no more than 43 million euros/year).

Spin-off. The creation of a spin-off takes place within another organisation, which can be a company, an academic institution or a research institute. A spin-off is the creation of an independent company through the sale or distribution of new shares of an existing business or division of a parent company. The spun-off companies are expected to be worth more as independent entities than as parts of a larger business and retain the assets, employees and intellectual property from the parent company, which gives it support in a number of ways (e.g. investing equity, providing legal/technology/financial services).

Staff. People employed by the agency on a permanent or extended contract of 6 months or more.

Start-up is the action or process of setting something in motion. This term defines newly established businesses that are in the beginning of their activity and search for innovative activities in the market. This means that a startup is a company that is in the first stage of its operations, often bankrolled by its entrepreneurial founders as they attempt to capitalise on developing a product or service for which they believe there is a demand.

Annex 2 Questionnaire

TAFTIE SoftPower Taskforce survey

This survey is conducted in the scope of TAFTIE's 'Soft Power' Taskforce – competencies and soft skills in innovation agencies at the break of a new model for innovation support in Europe.

Main goals of this survey

In order to develop a better picture of the current capabilities of European innovation agencies, we have designed a survey to gather comparable data from across TAFTIE members.

The survey is divided in three parts. The first section asks a series of questions about the organisation's status, profile, main activities, beneficiaries and approach to assessment. The second part asks specific questions about the range of advisory and support services provided by innovation agencies. The third part asks about the background, experience and soft skills of innovation agency employees.

The survey will be an initial mapping exercise of the advisory and support services provided by innovation agencies across Europe, and should flag areas where further research needs to be conducted. We will then carry out additional qualitative interviews and focus groups with a selected number of individuals from across the TAFTIE agencies to deepen our understanding.

We believe there are a number of clear incentives and benefits for innovation agencies to be gained from completing the survey:

- It will provide an up to date comparative picture of the current profile of TAFTIE member agencies, and where they sit within their respective innovation ecosystems;
- It will enable individual agencies to think about the advisory and support services they currently provide, take inspiration from the approach of their counterparts in other countries, and help them start to think about which of these services they should prioritise or develop further;

- It will support innovation agencies to think about the capabilities and skills they currently have and may need to recruit for in the future to be able to provide impactful support for their beneficiaries;
- It will be a useful input for the current discussions and planning relating to the European Innovation Council (EIC) and the 'cofund' element of Horizon Europe, namely to provide evidence on the preparedness of innovation agencies for the challenges arising from the novelties brought by the new framework programme to be launched in 2021.

Important note

For information relating to the completion of this survey, please consult the Survey Guide for Respondents that was sent to you by email from anisoftpower@ani.pt.

The definitions included in the Glossary are for the sole purpose to allow for a common understanding by all respondents regarding the terms that can be found in the survey, with a view to comparable information and do not, by any means, represent an official or the most globally comprehensive definition of the terms.

PART I - ORGANISATIONAL PROFILE

This first section asks a series of questions about the organisation's status, profile, main activities, beneficiaries and approach to assessment of activities.

Identification details

1. Agency name (Please provide the full name of the agency and, if possible, in English)

Free text hox

2. Country

Free text box

3. Location of headquarters

Free text hox

4. Location(s) of other offices (Please provide the names of the cities and respective country, if applicable)

Free text box

5. Date of establishment (Please provide full date (dd/mm/yyyy), if possible)

Free text box

6. Email (Only for the purpose of receiving an email notification when submitting the survey)

Free text box

Organisation structure, mandate and budget

7. Which of these best describes your agency's governance structure?

Select only one option

- a. Public agency
- b. Public-private agency
- c. Private agency
- d. Other (specify):
- 8. Total number of staff (Note: By staff we mean staff employed by the agency on a permanent or extended contract of 6 months or more)

Free text box

- 9. Please attach an organogram of your agency (only PDF files accepted)
- 10. Total annual budget (in your own currency) (Please specify which financial year this figure applies to in your country's currency. If it is a multi year budget, divide to give an estimated annual budget)

Free text box

11. Is Research and Innovation (R&I) promotion the only purpose of your agency?

Select only one option

- a. Yes (go to question 14)
- b. No (go to the following question)
- 12. Please describe what other mandate(s) are assigned to your agency, apart from promoting R&I

Free text box

13. Since your agency's mandate(s) includes other activities apart from promoting R&I, please indicate the total annual budget (in your own currency) for R&I promotion activities (Please also specify which financial year this figure applies to in your country's currency)

Free text box

14. What is your agency's annual budget (in your own currency) for funding programmes? (Please specify which financial year this figure applies to in your country's currency. If it is a multi year budget, divide to give an estimated annual budget)

Free text box

- 15. What are the sources of your agency's budget? (Please select all the sources that apply)
 - a. State budget National government
 - b. State budget Regional/local government
 - c. European/International funding programmes (including European structural funds, European/international projects etc.)
 - d. Private funders
 - e. Membership fees
 - f. Services and self-generated revenues
 - g. Other (specify):

Important note for Part I (final questions), II and III

Please note that from this point forward, ALL QUESTIONS refer EXCLUSIVELY to your agency's R&I PROMOTION ACTIVITIES

Organisation structure, mandate and budget (continuation)

- 16. Which of the following statements most accurately describe your agency's mandate? (Please select up to two options)
 - a. Supporting R&I activities across the economy, without a focus on specific sectors or technologies
 - b. Supporting R&I activities that seek to develop specific sectors and/or technologies
 - c. Mission-driven R&I (i.e. coordinating or developing responses to specific large-scale societal challenges in areas like defence, energy, health etc.)
 - d. Innovation policy experimentation (i.e. developing new methods of supporting R&I)
 - e. Building or strengthening the innovation ecosystem (e.g. by promoting industry-research cooperation)
 - f. Other (specify):
- 17. What services does your agency provide? (Please select all that apply)
 - a. Financial support (i.e. grants, loans, equity financing, innovation vouchers, challenge-based funding) to companies for R&I activities
 - b. Financial support for scientific research (including direct funding to academic institutions and research centers)
 - c. Financial support for collaborative R&I activities (i.e. collaborations between companies and scientific/research entities)
 - d. Financial support for innovation intermediaries (e.g. business accelerators or incubators, competence centres)
 - e. Procurement for Innovation
 - f. Business advisory services (e.g. coaching, mentoring, proposal-writing support)
 - g. Connecting and brokering services (e.g. knowledge transfer activities, matchmaking events, introductions to investors)
 - h. Facilitating access to finance
 - i. Skills development and training activities
 - j. Information gathering and dissemination activities relating to international R&I programmes (e.g. Horizon 2020, Eureka/Eurostars, other non-European programmes)
 - k. Internationalisation activities (e.g. international missions, trade and export promotion services, international collaborative R&I activities)
- 18. Are there any other services your agency provides that were not mentioned in the previous question? (If Yes, please specify)

Free text box

Beneficiaries

19. Which types of entity does your agency provide financial and non-financial support and advisory services to? (Please select all that apply)

Type of entity	Financial support	Non-financial support and advisory services
Large companies		
SMEs		
Mid-caps		
Micro-enterprises		
Start-ups		
Spin-offs		
Individual entrepreneurs		
Universities/academic researchers		
Research/interface/competence centers (including incubators)		
Clusters		
Government departments		
Investors		
Non-governmental/civil society organisations		

20. Are there any other entities your agency provides financial and non-financial support that were not mentioned in the previous question? (If Yes, please specify the type of service and the specific type of entity it benefits)

Free text box

21. Does your agency offer financial and/or non-financial services to specific types of entity?

Select only one option

- a. No all financial and/or non-financial support services offered by my agency are open to all types of entity (go to question 23)
- b. Yes my agency offers dedicated financial and/or non-financial programmes or services to different types of entity (go to the following question)
- 22. To what types of entity does your agency offer dedicated financial and/or non-financial programmes or services? (Please identity the types of entity and the correspondent financial and/or non-financial programme or service)

Free text box

23. Does your agency carry out R&I promotion activities targeted at specific geographic areas?

Select only one option

- a. No
- b. Yes financial support
- c. Yes non-financial support
- d. Yes a mix of financial and non-financial support
- 24. Does your agency carry out R&I promotion activities targeted at specific sectors or industries?

Select only one option

- a. No
- b. Yes financial support
- c. Yes non-financial support
- d. Yes a mix of financial and non-financial support

25. Does your agency carry out R&I promotion activities targeted at companies with different levels of technological development (i.e. traditional/ manufacturing companies vs. high-tech companies)?
Select only one option

a. No
b. Yes - financial support
c. Yes - non-financial support
d. Yes - a mix of financial and non-financial support

26. Does your agency have any other criteria for segmenting recipients of support? (If Yes, please specify the criteria and the type of support provided)

Free text box

Investment and risk

27. Which of the following statements best describes your agency's approach to providing financial and/or non-financial support?

- a. Support is mainly distributed through top-down programmes where priorities are set by government/the agency
- b. Support is mainly open and responsive to ideas submitted by clients and beneficiaries
- c. Both top down and bottom up forms of support are offered
- 28. Who evaluates proposals for financial and/or non-financial support for your agency?

(Please select the option that best describes your agency's case)

- a. Proposals are mostly evaluated by external experts
- b. Proposals are mostly evaluated by internal experts
- c. Proposals are evaluated by roughly even numbers of internal and external experts
- d. It varies depending on the programme
- e. Other (specify):
- 29. Does your agency design and/or deliver programmes or joint activities with any of the following partners? (Please select all that apply)
 - a. Government agencies/ministries
 - b. Regional/local authorities
 - c. Investors
 - d. Research/interface/competence centres (including incubators)
 - e. International partners (other innovation agencies, EU/EC DGs)
 - f. Higher Education Institutions
 - g. Other (specify):

Efficiency and impacts assessment

30. Are your agency's activities evaluated?

Select only one option

- a. No (go to PART II Advisory and Support Services)
- b. Yes (go to the following question)
- 31. What types of evaluation or assessment are performed with respect to your agency's activities? (Please select all that apply)
 - a. Formative evaluations (to identify whether a programme/activity/service is needed and to set priorities/goals)
 - b. Process evaluations (to monitor processes and procedures of a programme/activity/service while it is being implemented)
 - c. Outcome evaluations (to generate data on results of specific programmes/activities/services and the degree to which those outcomes are attributable to the intervention itself)
 - d. Impact evaluations (to assess the overall impact of specific programmes/activities/services from start to finish)
 - e. Economic evaluations (to measure the economic benefits of a programme/activity/service against its costs)
 - f. Organisational evaluations/assessments (to assess the overall impact of the agency)
 - g. Perception audits/customer satisfaction surveys
 - h. Other (specify):

32. Who evaluates your agency's activities?

Select only one option

- a. In-house evaluators
- b. External evaluators
- c. It varies depending on the programme/activity
- d. Other (specify):

PART II - ADVISORY AND SUPPORT SERVICES

This second part asks specific questions about the range of advisory and support services provided by innovation agencies

Set of services

1. Does your agency currently provide any advisory and support services?

Select only one option

- a. Yes (go to the following question)
- b. No (go to guestion 12)
- 2. What advisory and support services does your agency provide? (Please select all that apply)
 - a. Coaching and mentoring services
 - b. Business management advice (e.g. on marketing, business development, project management etc.)
 - c. Innovation management advice
 - d. Legal advice (e.g. on IP, regulations etc.)
 - e. Proposal-writing support
 - f. Supporting businesses to recruit and retain skilled staff
 - g. Innovation networking and brokerage activities (creating networks and organising events to facilitate knowledge transfer and collaboration between companies, funders, researchers, investors etc.)
 - h. Matchmaking activities (making specific connections e.g. between businesses and investors)
 - i. Delivery and/or accreditation of skills training and development for students
 - j. Delivery and/or accreditation of skills training and development for professionals
 - k. Dissemination of information (e.g. about funding opportunities)
 - I. In-house research on innovation policies and processes
 - m. Market research and financial analysis
 - n. Analysis of current and future skills and capability needs within the workforce (including academic, technical, business skills etc.)
 - o. Certification/accreditation
 - p. Technology validation
 - q. International missions
 - r. Trade and export promotion services
 - s. International collaborative R&I activities (e.g. bilateral/multilateral cooperation programmes)
 - t. Other (specify):
- 3. Are any of the identified services provided through external entities, through contracts or cooperation agreements?
 - a. No all the identified advisory and support services are provided directly by my agency (go to question 5)
 - b. Yes my agency provides part of the identified advisory and support services through external entities (go to the following question)
- 4. From the identified advisory and support services, please identify which are provided by external entities

Free text box

Investment in advisory and support services

5. Approximately what percentage of your agency's total budget is spent on advisory and support services?

Free text box

- 6. Under which budget lines/programmes are your agency's current advisory and support services carried out? (Please select all that apply)
 - a. Agency's own budget lines/programmes national/state budget
 - b. Enterprise Europe Network (EEN)
 - c. Horizon 2020 SME-instrument

- d. Horizon 2020 other funding lines
- e. European Structural Funds
- f. Other (specify):
- 7. How does your agency design and deliver advisory and support services?

Select only one option

- a. Supply-driven, based on in-house identification of the needs of clients
- b. Demand-driven, In response to the needs of our clients/beneficiaries
- c. A mix of directed and responsive support
- 8. How are advisory and support services administered within your agency?

Select only one option

- a. A dedicated team is responsible for administering these services
- b. They are managed and administered horizontally across all or some of the agency's programmes
- c. Other (specify):

Impacts of advisory and support services

9. How many entities benefited from your agency's advisory and support services in the most recent financial year?

Free text box

10. Does your agency specifically measure or evaluate the impacts of advisory and support services?

Select only one option

- a. Yes (go to the following question)
- b. No (go to question 12)
- 11. How does your agency evaluate the impacts of these services?

Free text box

Advisory and support services in the future

- 12. Does your agency plan to offer any additional advisory and support services in the next 1-3 years? Select only one option
 - a. No (go to question Part III Skills and competencies)
 - b. Yes (go to the following question)
- 13. Please specify what additional advisory and support services your agency plans to offer in the next 1-3 years

Free text box

PART III - SKILLS AND competencies

This third part asks about the background, experience and soft skills of innovation agency employees.

Qualifications and professional backgrounds

1. Does your agency hold/collect data on the formal qualifications of its employees?

Select only one option

- a. Yes (go to the following question)
- b. No (go to question 3)
- 2. Thinking about the formal qualifications of all of your agency's employees, approximately what percentage have: (Note: By employees, we mean staff employed by the agency on a permanent or extended contract of 6 months or more)

Select only one option per row

	None	0%-25%	25%-50%	50%-75%	75%-100%
A postgraduate qualification (i.e. a Bachelors or Masters degree)					
(i.e. a bachelors of Musici's degree)					
A doctoral qualification (i.e. a PhD)					
A Masters in Business Administration (MBA)					
Other specialist technical qualifications (e.g. medical degree)					

3. Does your agency hold/collect data on the educational background of its employees?

Select only one option

- a. Yes (go to the following question)
- b. No (go to question 5)
- 4. Thinking about the formal educational background of your agency's employees, approximately what percentage have qualifications in: (Note: By employees, we mean staff employed by the agency on a permanent or extended contract of 6 months or more)

Select only one option per row

	None	0%-25%	25%-50%	50%-75%	75%-100%
Humanities (i.e. history, literature, languages, arts)					
Social sciences (i.e. economics, law, anthropology, psychology)					
Natural sciences (i.e. biology, chemistry, physics, earth sciences)					
Formal/exact sciences (i.e. computer science, mathematics, statistics)					
Applied sciences (i.e. engineering and technology development)					

- 5. What types of professional experience/backgrounds do individuals currently employed by your agency have: (Please select all that apply)
 - a. National government
 - b. Local government
 - c. Intergovernmental organisations (e.g. European Union, World Bank)
 - d. Academia/research organisations
 - e. Business and management
 - f. Traditional industry sectors (e.g. production, manufacturing)
 - g. High technology sectors (e.g. communication technologies including hardware, software, internet, digital networking)
 - h. Financial services sector (e.g. banking, investment, VCs, business angels)
 - i. Regulatory and legal sectors (e.g. IPR regulation)
 - j. Not-for-profit (e.g. charities, think tanks, NGOs)
 - k. Other (specify): applied research/interface/competence centers (incl. incubators)
- 6. Does your agency currently employ individuals with qualifications or professional skills/experience in any of the following domains: (Please select all that apply)
 - a. Coaching/mentoring
 - b. Evaluation/impact assessment
 - c. Specialist data skills (e.g. data science/analytics/visualisation, machine learning, coding)
 - d. Foresight and futures analysis
 - e. Design thinking (e.g. human-centred design, user experience design)
 - f. Diplomacy (i.e. international negotiations/protocol/law)

- 7. Is your agency actively (in the next six months to a year) seeking to recruit individuals with qualifications or professional skills/experience in any of the following domains: (Please select all that apply)
 - a. Coaching/mentoring
 - b. Evaluation/impact assessment
 - c. Specialist data skills (e.g. data science/analytics/visualisation, machine learning, coding)
 - d. Foresight and futures analysis
 - e. Design thinking (e.g. human-centred design, user experience design)
 - f. Diplomacy (i.e. international negotiations/protocol/law)
- 8. Are there any other formal skills or qualifications that your agency is looking to recruit for in the next six months to a year? (If Yes, please specify which)

Free text box

9. Are there any formal skills or qualifications that your agency finds it difficult to recruit for?

Free text box

Soft skills

- 10. Does your agency currently include any of the following skills or attitudes as requirements in job descriptions? (Please select all that apply)
 - a. Leadership
 - b. Critical thinking and strategic analysis
 - c. Ability to work as part of a team
 - d. Taking initiative and working autonomously
 - e. Appetite for risk
 - f. Adaptability and flexibility to change
 - g. Storytelling and advocacy
 - h. Organization, planning and reporting abilities
 - i. Informal networking and relationship-building with internal and external stakeholders
 - j. Political and bureaucratic awareness
 - k. Citizen engagement
 - I. Collaboration with external partners/clients
 - m. Customer service
 - n. Prototyping and iterating ideas
 - o. Influencing and negotiation skills
 - p. Creative problem-solving
 - q. Communication skills
 - r. Empathy
- 11. Are there any other soft skills that your agency looks for in the people it recruits?

Free text box

12. Are there any soft skills that your agency currently finds it difficult to recruit for?

Free text box

Skills development dynamics

13. Does your agency offer training or development opportunities to its employees?

Select only one option

- a. No (submit form)
- b. Yes in house (go to the following question)
- c. Yes externally sourced (go to the following question)
- d. Yes both in house and externally sourced (go to the following question)

14. What kind of training does your agency offer? (Please specify the type of training and the beneficiaries, if possible)
Free text box

Annex 3

Additional questions: 1st Phase interviews

- 1. Of all the advisory and support services your agency provides, which do you think have provided the most value for your beneficiaries?
- 2. What do you know about the impact these advisory and support services have had? Does your agency measure the impact of these services and, if so, what are the performance indicators it takes into consideration?
- 3. What improvement(s) would you make to your agency's portfolio of advisory and support services for higher impact?
- 4. When providing advisory and support services, does your agency resort to external entities/experts with specific competencies that are unavailable within its structure? For what services? And what kind of external support does your agency look for?
- 5. We would like to include practical examples of innovative and impactful advisory and support services provided by innovation agencies across the TAFTIE network in the survey's report. If your agency offers a particular service or programme that you think others could usefully learn from, do let us know, and we will follow up with some additional questions

Annex 4

Additional questions: 2nd Phase interviews

1. Please provide separate figures for your agency's intervention budget (i.e., the money it spends on delivery of programmes and support for clients/beneficiaries) and its operational budget (i.e. money spent on staff costs, overheads, daily running of the agency's facilities

Advisory and support services	1	2	3
	Low-intensity service, with little or no direct engagement with the client e.g. information provided on a website)	(Average intensity service, with some dedicated support in terms of resources and staff to provide the service to the client e.g. some personalised support for a single or small group of clients/beneficiaries	(Intensive service, with a high degree of tailored personal attention provided to the client e.g. in depth support for individual clients/beneficiaries by a dedicated account manager)
Coaching and mentoring services			
Business management advice (e.g. on marketing, business development, project management etc.)			
Innovation management advice			
Legal advice (e.g. on IP, regulations etc.)			
Proposal-writing support			
Supporting businesses to recruit and retain skilled staff			

Advisory and support services	Low-intensity service, with little or no direct engagement with the client e.g. information provided on a website)	(Average intensity service, with some dedicated support in terms of resources and staff to provide the service to the client e.g. some personalised support for a single or small group of clients/beneficiaries	(Intensive service, with a high degree of tailored personal attention provided to the client e.g. in depth support for individual clients/beneficiaries by a dedicated account manager)
Innovation networking and brokerage activities (creating networks and organising events to facilitate knowledge transfer and collaboration between companies, funders, researchers, investors etc.)			
Matchmaking activities (making specific connections e.g. between businesses and investors)			
Delivery and/or accreditation of skills training and development for students			
Delivery and/or accreditation of skills training and development for professionals			
Dissemination of information (e.g. about funding opportunities)			
In-house research on innovation policies and processes			
Market research and financial analysis			
Analysis of current and future skills and capability needs within the workforce (including academic, technical, business skills etc.)			
Certification/accreditation			
Technology validation			
International missions			
Trade and export promotion services			
International collaborative R&I activities (e.g. bilateral/multilateral cooperation programmes)			
Others:			

4.	How important are advisory and support services as part of your agency's overall activities? Please choose the option that best suits your agency's case:
Α	Advisory and support services are a major part of our offer to clients and/or are embedded across all or most programmes
В	Advisory and support services are part of our offer to clients, but are not embedded across all programmes
С	Advisory and support services are a minor part of our offer to clients
5.	From the list in question 3, which advisory and support services are embedded in the agency's financial services? Please list them.
6.	A shift from programme-based support to client-based support has been identified and appears to be common to several agencies.
	a. Is this the case for your agency? Please describe.
	b. If so, do you think that this shift will change the set of skills/competencies your agency requires in the near future? Please describe.
7.	What do you think are the most important skills (formal and informal, i.e., soft) when providing impactful advisory and support services? Is your agency planning to invest more in the set of skills you have identified?
8.	Do you currently employ people with language skills? Do you intend to recruit them in the future?
0.	bo you currently employ people marrianguage camo. Bo you mend to reduit them in the future:



The 'Soft Power' Taskforce was jointly carried out by the following TAFTIE member agencies:





































