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VIADUCT

**Research-based spin-off creation:
VIADUCT REGIONAL STUDY REPORT
2023**

West of Ireland

Date: November 2023

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1 Introduction to VIADUCT project

“Valorising public research to drive technology transfer and commercialisation through the creation of spin-off companies (VIADUCT)” is an international project financed by the Interreg Europe programme, with the contribution of the member states.

The VIADUCT project aims to promote knowledge transfer and commercialisation of public research by addressing key barriers related to the creation and establishment of spin-off companies through the improvement of regional policy instruments. This ambitious goal will be achieved through targeted actions for improving research infrastructure, promoting exchange of experiences, innovative approaches, and capacity building to identify, disseminate, and transfer good practices among regional policy actors.

Spin-off companies are a significant source of innovation, facilitating increased knowledge transfer between quadruple helix actors (universities, research centres, public and private sectors). Furthermore, spin-off companies can provide high-quality jobs and high-value-added products and services, forming a crucial part of mobilising science, technology, and innovation, thus driving regional cohesion and development. Nonetheless, their creation faces significant challenges related to research commercialisation, including:

- Low entrepreneurship culture among researchers, where career orientation favours research and academic careers.
- Difficulty in identifying research results that can be turned into business ideas.
- Lack of business skills among researchers and research managers.
- Regulations that do not support knowledge transfer through spin-off companies.
- Limited access to funding due to a lack of tangible evidence for securing financing.
- High business risk and market uncertainty due to the disruptive nature of products or services.

The project consortium consists of seven project partners: University of Zaragoza (ES), West Regional Development Agency (RO), SATT Conectus Alsace (FR), Kaunas Science and Technology Park, Public Institution (LT), Western Development Commission (IE), Municipality of Pieve di Soligo (IT), Council of Tampere Region (FI), and ASTP (NL). The total budget for the project is almost 1.8 million euros, and the project will be carried out from March 2023 to May 2027.

2 Objectives and methodological approach

2.1 Introduction to the territorial analysis

One of the first steps of the learning process carried on in VIADUCT is to analyse how is each region dealing with the commercialisation of public research through spin-off creation. The objective of this analysis is to assess if the current methodologies and support measures are working well, and to identify in which areas each region could improve by learning from others.

This analysis consists of three activities: a joint thematic survey, a regional study report, and an interregional analysis report. Both the survey and the regional report will be conducted by 7 partners in their regions. The interregional report will compile the regional results at project level in a comparative way, in order to find synergies among regions that may have emerged from the survey and regional reports.

2.2 Introduction to the VIADUCT Joint Thematic Survey

The joint thematic survey on Research-based Spin-off Creation, conducted as a part of the VIADUCT project, aimed to gather valuable information to facilitate the improvement of the support and promotion measures addressed to spin-off companies in different European regions, thus contributing to their growth and success.

The survey was jointly designed by project partners and intended for the following target groups:

- **Spin-off Companies:** The survey was aimed at companies originally established to bring innovations from public research laboratories or centres to the market. This includes both already established spin-off companies and those in the planning or development phase.
- **Researchers and Business Founders:** The survey was also intended for researchers and business founders who have potential or are interested in establishing spin-off companies or already had experience in this process.
- **Stakeholders and Supporters:** The survey was open to other stakeholders, such as regional development agencies, research institutions, universities, funders, and others who support and promote the creation and growth of spin-off companies.

With this diverse range of participants, the survey aimed to provide a comprehensive perspective on research-based spin-off creation and related development issues, which can further support to foster collaboration and the sharing of good practices in these areas among seven European regions.

The survey consisted of six separate sections, each of which assessed one of the main barriers of the spin-off creation process: lack of entrepreneurial culture, difficulties to find potentially transferable research results, lack of business management skills of researchers, difficulties to access to funding, legal procedures not conducive to create a spin-off company, and difficulties to consolidate already existing spin-offs businesses. Besides, an extra question intended to assess if there is any relation in the success of a spin-off company with the smart specialisation strategy of the region.

2.3 Objective of the regional study report.

The objective of the regional study report is to compile the answers to the survey at a regional level, in order to draw some conclusions on how effective are current measures / methodologies on each region.

The results of the survey are shown in a visual format (section 3) in order to ease their interpretation. Besides, they are divided in sections, as the survey was designed, to facilitate their comprehension.

2.4 Methodological approach

The West Region in Ireland is home to 2 Universities, comprising University of Galway, and newly formed Atlantic Technological University (since April 2022), resulting from the amalgamation of three (3) Institutes of Technologies (ITs): Sligo IT, Galway-Mayo IT and Letterkenny IT.

University of Galway has currently (as per 2022 statistics produced by Knowledge Transfer Ireland¹) produced 4 spinouts during 2022 and has 16 spinouts in total that are considered to be currently active. Atlantic Technological University has 1 (one). This represents roughly 9% of the national total (193 spinout companies). Atlantic Technological University is in the process of establishing a Technology Transfer Office.

The supporting ecosystem is made of a small number of regional stakeholders, which is reflected in the number of respondents in the survey.

In West of Ireland region, the VIADUCT survey was carried out between August and October 2023. Altogether 25 answers were gathered. In the analysis section we dig in deeper into the survey results.

¹ <https://www.knowledgetransferireland.com/Reports-Publications/Annual-Knowledge-Transfer-Survey-2022.pdf>

The breakdown of the type of organisations that have responded to the survey is illustrated below. The position of respondents tended to be at Director or managerial level, as illustrated in Figure 2.

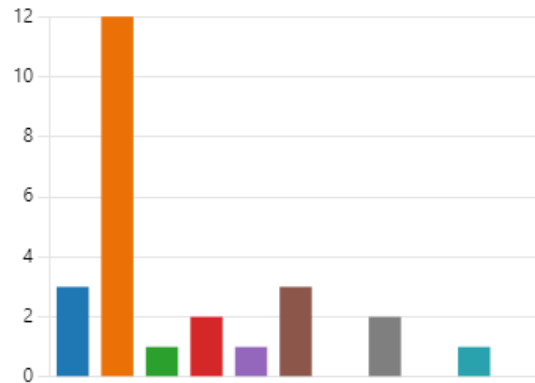


Figure 1: Analysis of Respondents

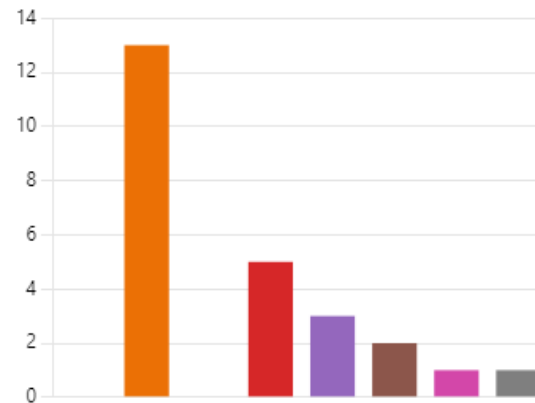
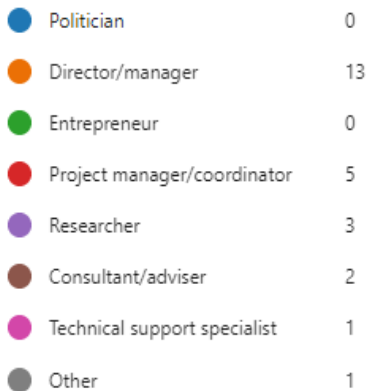


Figure 2: Breakdown of Respondents' position in respective organisations

3 Analysis of West of Ireland region

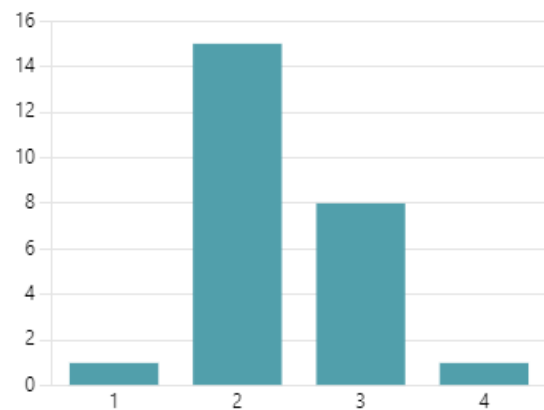
3.1 Survey Results

3.1.1 Promotion of entrepreneurial culture

- **How do you evaluate the entrepreneurial culture among public researchers in your region?**

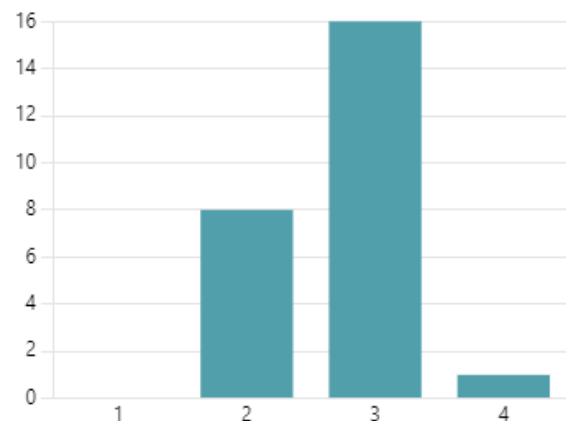
The majority of the respondents felt that the entrepreneurial culture among public researchers tends to be unsatisfactory, on average. The view from outside organisations/stakeholders tends to be more positive than those directly involved in research, according to survey results.

2.36
Average Rating



- **How do you find the support measures to promote entrepreneurial culture among public researchers in your region?**

2.72
Average Rating



The sentiment is more positive on average when it comes to rating the support measures, which are viewed more predominantly as satisfactory.

- **What public tools/initiatives could be implemented to promote the entrepreneurial culture amongst public researchers?**

The respondents made the following comments/suggestions:

- ✓ More training in commercialisation and business skills for researchers
- ✓ More training and awareness (outside of medtech area which is already mature and well established) More focus on service innovation Funding sources (seed funds) aligned to less developed areas of our regional prioritized areas.
- ✓ Understanding what the different activities are going on in all areas defining 2nd level, 3rd level undergrad, 3rd level post grad, external start up community as to SME, as people get confused with all the social media. This could also be done for funding & awards at all different areas.
- ✓ More funding.
- ✓ I think the following initiatives would help: 1) Greater promotion of the potential to commercialise innovative solutions. 2) Increased linkages between entrepreneurs, investors and researchers would help - the researchers don't have to be the lead entrepreneur but can still play a significant role in developing/commercialising the business. 3) Greater recognition/rewards at HEI level for researchers initiating an entrepreneurial journey. 4) An easy, clear, and fair process for the commercialisation of IP developed by researchers.
- ✓ Highlighting global challenges where their work can make a difference to society and helping them to focus on problems their research can solve as opposed to research for research's sake.
- ✓ Publish exemplary case studies. Educate researchers about commercialisation. Educate researchers about entrepreneurialism.
- ✓ More research friendly supports and funding.
- ✓ Linking more with other stakeholders in ecosystem.
- ✓ More access to external expertise.
- ✓ Education and training about entrepreneurship - for public researchers.
- ✓ Greater understanding and awareness of Technology Transfer processes and supports.
- ✓ Entrepreneurship Training Week for Researchers - To provide a greater understanding and focus on the potential of entrepreneurship as well as the opportunities/challenges facing entrepreneurs among the research community. This would also drive higher levels of research in key areas. This would require consultation with Science Foundation Ireland and other research institutions, and universities on the introduction of a nationwide

programme. Entrepreneurship training provides valuable skills that can apply across sectors: government, academia, industry (large or small), irrespective of where the researcher ends up applying their talents.

- ✓ There are some good examples in Galway in biomedical technology - as this had become a global hub for this type of research and manufacturing in the last few decades - particularly Bioinnovate. There is also an Ag-Innovate - which is focused on agricultural innovation (as we have a lucrative agri-food sector also). There are Innovation Hubs at ATU in Galway also, which are very successful. At the University of Galway - there is the "Ideas lab" - which is within the university - it would be great if this was scaled up to engage with the wider research community - with a focus on e.g., sustainability It would also be great to give more support to social enterprise.
- ✓ Place more emphasis on the resourcing dimensions to technological challenges in funding calls.
- ✓ Clear entrepreneurial pathway(s) Administration support(s) Framework support(s).
- ✓ I believe Entrepreneurship should be mandatory as part of second level and higher-level education. This would hopefully encourage an entrepreneurial mindset from a young age and encourage business thinking and exploration from a young age. I also believe entrepreneurial support and accelerator programs should be offered and encouraged to every discipline in research. Research Topics could be chosen in tandem with or by leveraging the advice of entrepreneurial experts or commercial experts. Setting up Collaboration programs with business faculties and accelerator program experts together with the research might encourage at least testing some research topics with a commercial/entrepreneurial mindset.
- ✓ Our organisation has traditionally been a teaching organisation and therefore academics contracts are designed to deliver undergraduate teaching. A suit of supports that would allow academics reduce their teaching load to allow them to investigate entrepreneurial potentials would see a large increase in entrepreneurial activity.
- ✓ There are many research and commercialisation supports in the national system, covering different TRL levels. Problems/suggestions include - need to join up the various supports and KPIs alignment cross agencies so they are complimentary - Need across the system expertise at the CTO/Business leadership across sectors and technologies so it's just not program administration only. This would be able to align and direct the right skills more flexibly - too many supports flowing into an academic research/innovation employment structure (contracts, teaching hours, project specific). Create a structure like Fraunhofer with more flexibility and long-term strategic focus.
- ✓ 1. Academic workshops 2. Departmental promotion and awareness campaigns 3. Embedding entrepreneurship teaching in all undergraduate and

postgraduate courses 4. Special entrepreneurial grants or top-ups to other grants that help promote the culture.

- ✓ A dedicated resource within the University with personal experience in entrepreneurship complemented by "entrepreneurs in residence" or "visiting entrepreneurs" willing to give their time with the prospect of having the opportunity of early investment.
- ✓ Financial supports to become self-employed to enhance risk taking, sabbaticals from academic positions in the public sector to start business, institutional recognition for promotional purposes.
- ✓ 3 respondents answered not sure/not applicable.

Conclusions for this section

The survey has identified a clear need for further development and improvement of entrepreneurial culture among the public researchers. While it is acknowledged that significant positive initiatives are underway, more mainstreaming of entrepreneurial programmes and interventions could be explored, such as entrepreneur in residence schemes and entrepreneurial skills being embedded into research projects, with additional programmatic interventions to enable the entrepreneurial culture to flourish. Greater recognition of entrepreneurial efforts and outputs produced by researchers has also been highlighted as a need.

3.1.2 Search and valorisation of research results

- **Do you know who to turn to within your organisation and/or region if you identify a research result that could be brought to market?**

● Yes	18
● No	3
● Not applicable to me	4



Majority of respondents have replied positively to this question, meaning that the process of initiating the commercialisation of research results is generally well known/acknowledged. The respondents that replied no tended not to be linked to the public research ecosystem directly.

- **How are research results with valorisation potential identified in your public research organisation?**

● The public research organisatio...	4
● Researchers communicate their ...	9
● Both are proactive	2
● I am not aware of it	3
● Not applicable to me	7



The majority of respondents indicated that the researchers are the proactive party in identifying valorisation potential, while some identified the universities, or both as being the drivers.

- **How would you suggest improving the process of valorising research results within your organisation / region?**

The respondents made the following suggestions/comments:

- ✓ Matchmaking services, greater support in helping identify research for companies looking to valorise.
- ✓ More physical displays and interactive activities around the campus and city promoting the region as an innovative region. Pipeline mapping for different types of researchers at different stages Buddy and mentor systems (some in place but more needs to be done).
- ✓ More access to funding and investment. More expertise funded in the area who are expert grant writers. More even distribution of supports and funds for the Western region as it is know there is not even distribution nationally.
- ✓ More motivation from researchers and more incentives.
- ✓ Encouragement at HEI level with financial support from Key Enterprise Development agencies to take the next step to initiate the valorisation process.
- ✓ More incentives for research community to form companies without the need for them to abandon academia completely (i.e., career break to support commercial activity).
- ✓ Implement a Technology Transfer Office.
- ✓ Less red tape.
- ✓ Possibly greater collaboration with commercial companies - linking in with those who have already done it.
- ✓ Provide a central platform with information on this topic and any procedures or processes in place.
- ✓ Greater awareness of Commercialisation paths.

- ✓ Have a training week to increase and get the number of research innovations off the shelf and into spinouts, subsidiaries and start-ups; to train researchers and innovators in a structured process of entrepreneurship and intrapreneurship (as these skills are needed in industry as well as in start-ups); Knowing that the aim is not to create companies by the end of the week, but to equip researchers with the necessary know-how to create a company or multiple companies using the skills acquired, with a better understanding of the customer/market and their needs/priorities at the core; Show the researchers that there is a balance in focus between the technology innovation push (a more natural focus for researchers) and the market pull (customer need), with the latter sometimes being much more important (no paying customer, no company); Have researchers exposed to working in multidisciplinary teams as part of the training.
- ✓ More investment in things like Ideas Lab, and sustainability and social enterprise.
- ✓ Funding has been secured to establish a Technology Transfer Office.
- ✓ Engaging with industry early in the process either directly or through clusters, hubs etc.
- ✓ The objective of conducting research is often to attain measurable academic outputs like publications with valorising a biproduct. There needs to be more formal recognition of the value of research with valorisation potential.
- ✓ Compelling the researcher to comment on the impact, applicability and future potential/innovation of the research.
- ✓ A more proactive approach is required. Ambitious targets are needed. The right person needs to be appointed to develop a strategy and held to account.
- ✓ Constructive engagement with technology transfer/innovation offices.
- ✓ 5 respondents replied not sure/not applicable.

Conclusions for this section

From the questions and suggestions made it would appear that more structured intervention and facilitation is required, with things happening organically to a degree, but more impetus and additional motivation is needed.

Greater transparency, enhanced profiling and recognition, as well as incentives are seen as additional drivers that could be introduced. Increased linkages and inter-connectivity outside the research 'bubble' have also been highlighted as possible improvements (for example, greater exposure to industry and market pull actors).

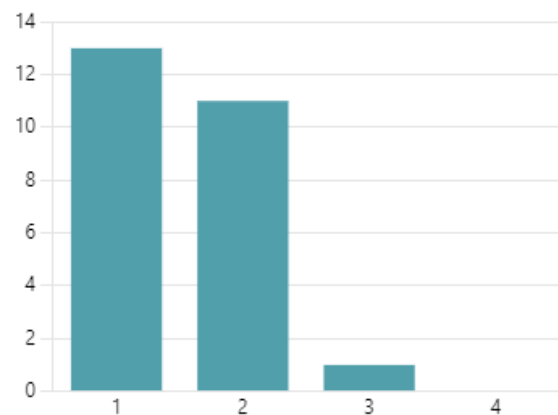
Matchmaking services and funding have also been identified as supports that have the potential to boost valorisation from research.

3.1.3 Business management skills of researchers

- **Do you think it is easy for public researchers to create a multidisciplinary team to launch a business project?**

The respondents have felt very strongly that it is difficult and very difficult (majority of replies) to create multidisciplinary teams to launch a business project.

1.52
Average Rating

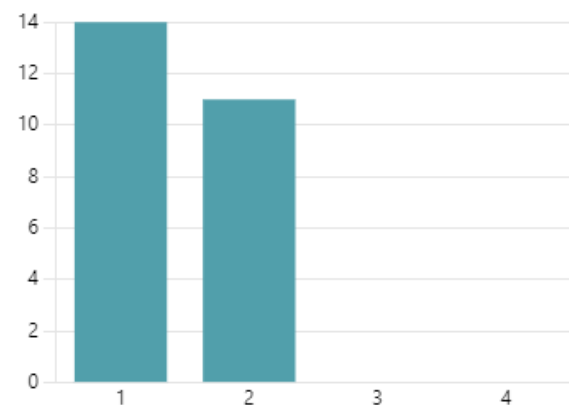


Do you think public researchers have sufficient knowledge to create and manage their own spin-off?

Equally, the respondents felt that the researchers themselves do not necessarily possess sufficient knowledge to create and manage their own spin-off.

This aligns with the previous result to the question regarding weak entrepreneurial culture in the research domain.

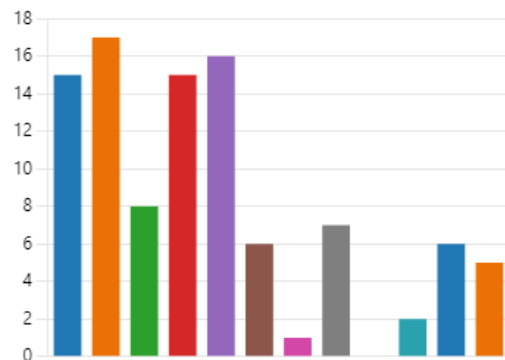
1.44
Average Rating



- **In which business areas do you think there is a need for training? (Please select the four most important ones)**

The respondents selected strategy and sales negotiations as the top two areas in need of training. This was closely followed by finance, as well as leadership, team and management. Other areas including legal, internationalisation, marketing and communication attracted similar number of votes, while distribution and HR attracted least votes. Digital competences category was not selected by any respondents. 5 respondents selected 'other'. The 'other' category included market research, market validation, market intelligence.

● Leadership, team management	15
● Strategy	17
● Legal	8
● Finance	15
● Sales and negotiations	16
● Internationalisation	6
● Distribution	1
● Marketing	7
● Digital competences	0
● Human Relations	2
● Communication	6
● Other	5



- **What measures do you think would be useful to improve the entrepreneurial skills of public researchers?**

The respondents provided the following suggestions/comments:

- ✓ Dedicated development programmes.
- ✓ Training in the above 4 in particular. Opportunities to mobilise also across Europe to visit and train (short stays).
- ✓ An understanding from agencies and funders that there are differences business models to be supported as well as R&D - manufacturing, services, companies with under 10 staff creating something significant. A better understand of future innovations.
- ✓ They don't need to be taught these skills. This is not the answer. The answer is to get them networked with the right people who have these skills already.
- ✓ Connecting researchers with investors & entrepreneurs (people with a proven business record) - the researchers don't have to be CEO or COO but can still have lead role in the business to reflect their technical know-how etc.

- ✓ Commercialisation knowledge.
- ✓ Modular training that fits with other priorities.
- ✓ More programmes and tailored supports.
- ✓ Clear pathways and processes, technical support.
- ✓ Access to external expertise.
- ✓ I think ability to build teams is very important. Researchers usually have the technical know-how of technology or science but would need other members of team and potentially a CEO, and operational expertise.
- ✓ Case studies of good practice - examples of success stories.
- ✓ Understanding paths to Commercialisation following research. Awareness and coaching re Entrepreneurial mindset and skills training.
- ✓ Introduce a week-long training programme on entrepreneurship for researchers and supervisors, with hybrid-delivery methods, oriented towards commercialising ideas/technologies emerging from passionate researchers. - Include mentorship from successful researchers who have created spinouts and start-ups based on their innovations. - Make it a condition of funding researchers, as with publishing papers in an open access form or having to take a research ethics module, to participate in at least two days of the training, with the full five days provided as an option to those willing to develop their skills further.
- ✓ Awareness of current supports Readiness for entrepreneurship Number of researchers who have engaged with training on any of the above list The amount of storytelling communicated to researchers of success stories .
- ✓ Training; funding opportunities; clarity on IP Policies.
- ✓ Business engagement support to equip them with the tools to engage with industry partners and customers.
- ✓ As described earlier encouraging entrepreneurial mindset starts from a young age and needs to be a larger part of undergrad education. The fear of entrepreneurship needs to be taken away by encouraging more collaboration between agencies who provide support programs for startups & entrepreneurship with public researchers. There are numerous innovation hubs around Europe from multiple disciplines with excellent Business Advisors within, perhaps they need to bring their programs to the public researchers place of work so as to encourage serendipity, conversations and relationship building. The ideal would be that when the researcher has a research program that might produce important potential then they have people within their network who they can leverage support from to test the viability/commercialisation of their research in an easy, cost-free way.
- ✓ Academics conducting applied research should attend training like that provided by New Frontiers phase 1 (in our region).
- ✓ In addition to #7, develop a CTO type structure that encompasses market analysis, technical strategic leadership. enterprise and competitor education,

and the discipline of portfolio management that is common across sectors or cross cutting. Mirror successful Corporate Horizon 2 and Horizon 3 research processes or larger scale public research models with an CTO/CMO/product management functions.

- ✓ A strong TTO that provide and facilitate outreach, training and mentorship to researcher.
- ✓ Generally, lead researchers (typically academics) do not want to leave their job to set-up a new venture. In this respect the model doesn't work. More attention needs to be focused on developing the PhD candidate or contract researcher working on the project, with the declared expectation to spin-out these individuals equipped with the right skills to run a company. These individuals should be incentivised, given IP rights behind the spin-out worth as much as that assigned to the PI who wrote the funding application. Consideration should also be given to a co-founder concept, matching the IP expertise of the researcher that will spin-out with a co-founder with complimentary skills and experience.
- ✓ Training and financial supports.
- ✓ More tailored programmes and funding.

Conclusions for this section

The questions in this section provoked many interesting insights. While the opinion is divided whether the focus should be on providing researchers with necessary training and skills or enable and incentivise them to form multidisciplinary teams, a need has been established to enact more programmatic interventions in both areas.

Exchange of expertise, role models and experience sharing have also been highlighted as important factors. Furthermore, and crucially, other aspects, such as work contracts and work environments being more capable of supporting researchers to become entrepreneurial, have been identified.

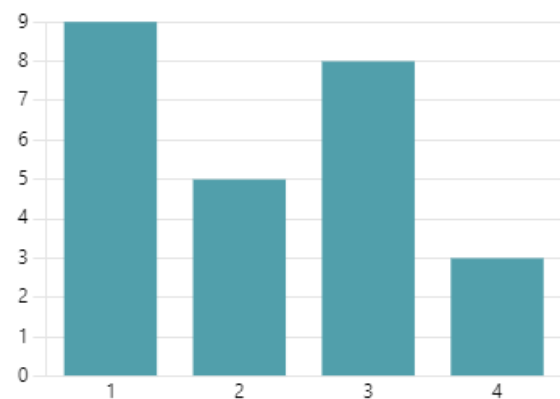
Recognition that other policies and procedures, within for example, HR (Human Resources), or how research pathways are handled internally by universities also have a role to play in terms of whether they act as motivation or deterrent to research pursuing valorisation, thus we need to also be looking at pragmatic enablers, outside of but in addition to the directly relevant processes such as how IP is handled.

3.1.4 Regulatory and legal framework

- **How familiar are you with the legal framework that applies to spin-offs?**

The view of the respondents diverges here with responses ranging to very unfamiliar to very familiar. Respondents from the universities tended to be more familiar, whereas stakeholders tended to be more unfamiliar.

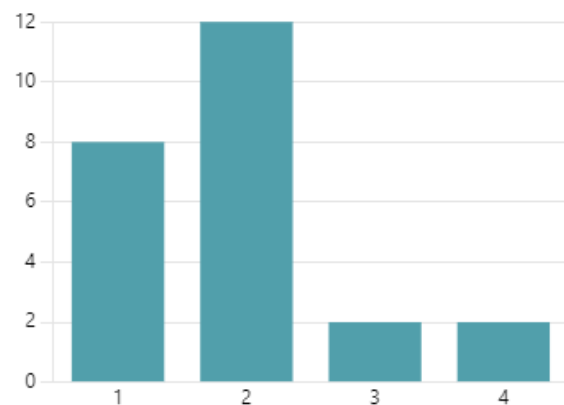
2.20
Average Rating



- **Do you think it is easy for public researchers to set up a spin-off from an administrative and legal point of view?**

The sentiment towards the ease of establishment of a spin-off from the administrative and legal point of view is more negative, with majority of the respondents replying that it is very difficult to difficult for researchers to set-up a spin-off company.

1.92
Average Rating



- **How could the regulatory and legal framework for the creation of spin-offs be facilitated?**

The suggestions and comments provided by the respondents are as follows:

- ✓ Greater transparency, review of what could be improved.
- ✓ We offer support through TTO offices, but I feel that training and demystifying in this area would be valuable. We do a few sessions and what begins as an I am afraid to spin my IP in often ends up in a this would be the best solution if I have something viable that I want to commercialise.
- ✓ Streamline legal support documentation publicly and look at even spread of associated costs by legal firms. Better engagement between legal reps on both sides public and company.
- ✓ Regular feedback would suggest that spin-out agreements from HEI's can be difficult for both founders & investors.
- ✓ Voucher based access to accounting/legal services might help.
- ✓ Make it clear to researchers how they can be involved and what the likely benefits and risks are.
- ✓ Simplify contracts, more attractive share arrangements.
- ✓ More transparency around processes.
- ✓ More workshops.
- ✓ With help of specialists and looking at international examples of best practice.
- ✓ Not familiar with framework personally, but through discussion with companies and others, understand there are challenges, especially with commercialisation university contracts when spinning out.
- ✓ Support in terms of practical advice - legal, financial, intellectual property, ethics, etc.
- ✓ University TTOs play a role but they are quite under-resourced, and expertise needs to be grown in these areas.
- ✓ A simple workflow / guide for the most common scenarios.
- ✓ Investment in the technology transfer office and ideas lab - there are very small numbers there compared to other staff in the university Ideas lab is fabulous, and growing and doing loads of great things - they are very visible and active The Technology Transfer office is hidden away somewhere - many people don't know they exist (unless they are active on collaborative projects and/or spin offs) - there needs to be better engagement.
- ✓ Also provide support in assessing the commercial potential of innovations, to help prioritise which ones to invest in.
- ✓ Have experts in the regulatory & legal framework as part of the wrap around support services available to spin-offs. Use the experts within innovation hubs and pre accelerator programs. A European sandbox approach for both might also be useful (perhaps it already is, and I am just unaware of it).

- ✓ This activity should be supported by a dedicated human resource in the innovation office.
- ✓ No strong views. On some disciplines like ICT, innovation is held back by a reluctance to make IP freely available to open source or partner company.
- ✓ Having specialists available for consultations.
- ✓ An arm's length company with some seed capital to invest in the start-ups would be the best option.
- ✓ 2 respondents replied with 'not sure', and 2 respondents did not provide any suggestions.

Conclusions for this section

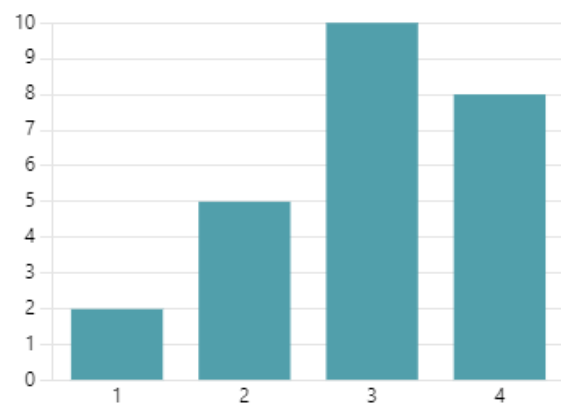
Many respondents felt that there is an opportunity to do more in terms of enabling seamless set-up of spin-off companies, including greater provision of expert and technical support, but also greater transparency, because there is an acknowledgment that process and people exist to facilitate the creation of spin-offs, but they are not necessarily well known and understood. Understanding of what makes for better contractual and IP arrangements between universities and researchers has also been highlighted.

3.1.5 Funding and financing mechanisms

- **Are you aware of the existing funding support mechanisms for spin-offs in your region?**

The respondents predominantly selected the options highlighting satisfactory and high-level of awareness, so that on average, the majority of respondents felt that the funding supports are well known.

2.96
Average Rating



- **In your experience, do you think that public researchers know where to go to obtain this funding?**

However, while the knowledge around funding options for research commercialisation is high, a good level of knowledge around application processes, eligibility and similar criteria was not as predominant among the respondents.

● Yes	7
● No	13
● Not applicable to me	5



- **How would you improve the existing financial support for the creation of spin-offs (new methods of support, more funding, better conditions, facilitating the process...)?**

The respondents provided the following suggestions and comments:

- ✓ Greater visibility of what is available to researchers.
- ✓ Awareness, more open events and activities/fireside chats would help.
- ✓ Understand not one size fits all with distribution of funds/grants. The amounts should be dependent on the sector and the work to be completed to achieve company formation and investor readiness. The one size fits all model stems innovation e.g., the amount funds a tech company needs V's therapeutics yet the treatment and supports of these 2 are equal when seeking supports/grants/funds. We need more models of funds for prototype we need more models to increase ability of spin out to look at a manufacturing model as opposed to acquisition we need to increase investment fund available to Irish companies - either internally or externally Help the Irish investment community understand their valuations are inconsistency globally and their requirements are unrealistic compared to investment being sought.
- ✓ There is plenty of funding.
- ✓ Promote an entrepreneurial culture with the HEI's at all levels (including a top-down approach).
- ✓ Needs to be less dependence on Angels/VCs as these are too risk averse and in smaller countries there is not enough capital available for investment in spinouts.
- ✓ Unify the advice. It is currently very difficult to navigate the initiatives of so many agencies.
- ✓ More diversity of funding, higher funding - DTIF is good, but consortia led.

- ✓ There is a lot of funding out there, but a lot of support is needed to figure out the correct funding, application etc. Time consuming - needs simplification.
- ✓ Imagine spin-offs face same challenges as all start-ups in region, which is funding at later (scaling) stage. Supply/options of early-stage funding is usually good.
- ✓ Central resources to act as a one stop shop for all such supports.
- ✓ Supports are pretty good but navigation is difficult English (United Kingdom)
- ✓ A simple guide showing funding routes, equity stakes taken/given, transfer of IP, etc. for different scenarios - with case studies.
- ✓ There is a lot of funding for different things, and it is very complex and difficult to know where to start. In Ireland, there is a lot of enterprise funding - and it also that researchers are just really busy people, dealing with a lot of bureaucracy, managing researchers, research, teaching, publishing, speaking at events and conferences - that it is just hard to find the time!
- ✓ Create a fund for investing in spin-offs with good commercial potential.
- ✓ Facilitating the process - clearer pathways.
- ✓ Create a one stop shop within each country that is tasked with being the sign poster for financial support for spin offs and all start-ups. It could also support social entrepreneurs.
- ✓ In our region, access to start-up funding is not a major stumbling block, however, I believe you need to support the researcher to take the jump from permanent public jobs to start-ups with sabbaticals that allow them the safety net of returning to their jobs should the venture fail.
- ✓ CTO and Product management support or equivalent.
- ✓ By moving the focus from the academic to the researchers doing the work it will incentivise the right people to find the internal facilitator and financial supports.
- ✓ The central issue is risk - risk can be minimised by having legal/admin supports, personal income supports.
- ✓ 3 respondents replied not sure or not applicable, and 1 respondent did not provide any suggestions.

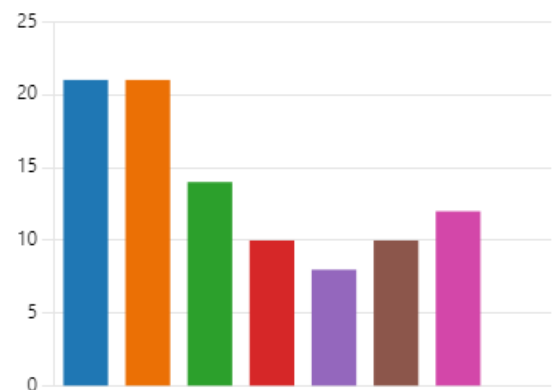
Conclusions for this section

It is clear from the commentary and suggestions provided that most respondents are saying that there is a great range and diversity of funding, however these are not easy to navigate and it is time consuming to do so, while some respondents also felt funding could be more inclusive/reflective of specific aspects relevant to valorisation of IP – ensuring that funding models support start-ups from research backgrounds on equal footing to other start-ups. A couple of interesting points were made around attitudes towards risk-taking – both from funders perspective and from the perspective of researchers looking to spin-out, and that this could be an area worth addressing.

3.1.6 Business creation and consolidation

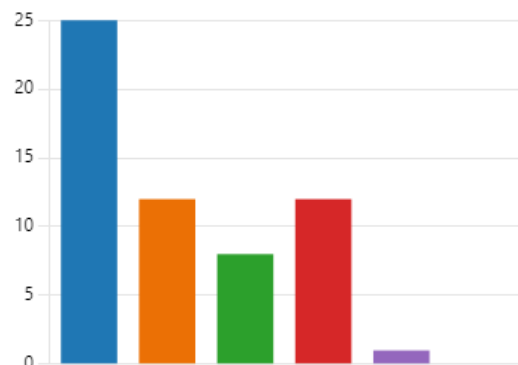
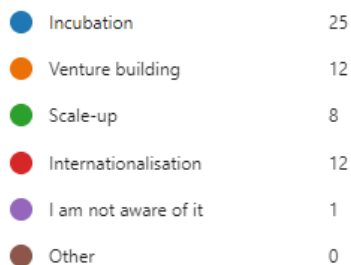
- What kind of support do you consider essential for setting up a spin-off business?**

Majority of respondents indicated that supports are needed with legal, fiscal and financial aspects, as well as funding (funding options, eligibility/applicability etc). This was followed by incubation (14), training (10), contact networks (10) and establishment supports (12). Fewer respondents felt that business consultancy (general) was required (8).



- At what stages in the consolidation of a spin-off are there specific support programmes/initiatives in your region?**

Incubation was selected as an available support/programme by all respondents. This was followed in lesser measure (half of respondents) by venture building and internationalisation. Scale-up support was selected by a 1/3 of respondents, while no other specific supports were listed by any of the respondents.



- **What do you miss in your regional policy to consolidate and/or scale spin-off businesses?**

The respondents provided the following suggestions and comments:

- ✓ Specific programmes that actively encourage researchers to spin-out or promote their research results more proactively for commercialisation.
- ✓ More cohesion at regional level. Mapping and frameworks would be really valuable too.
- ✓ Investment Grant writers Realistic Valuations.
- ✓ More space for technical start-ups e.g., labs.
- ✓ At spin-out level, there are a number of missing components (promotion of an entrepreneurial culture in HEI's, greater linkages with the business/investor community). At scale-up level, greater access to investment opportunities are required.
- ✓ Venture capital.
- ✓ More supports for scaling.
- ✓ Better integration between various supports and measures - especially national vs local and regional. More promotion, spinouts are rarely recognised.
- ✓ Greater access to role models.
- ✓ Supports tend to come from national policy, as region in transition, more region-specific intervention is needed.
- ✓ Lack of clarity of supports and agencies available to assist.
- ✓ Not enough focus on sustainability - focused or social enterprise focus.
- ✓ Scaling up and internationalisation supports are still relatively weak.
- ✓ Support services for spin offs or startups should all be under the one umbrella organisation. In Ireland they are fractured, and it is confusing and although there is lots of support it is in different places which is confusing and off-putting.
- ✓ The most common support for spin-off in our region is Enterprise Ireland's Commercialisation Fund. I believe the weakness of this fund is the focus on the recruitment of business leads to drive the project. I believe it is almost impossible to recruit someone who will have a passion of the team that did the research originally. More needs to be done to facilitate the academic working fulltime on these projects.
- ✓ The region is well served by Public Funding agencies like Enterprise Ireland, etc.
- ✓ The availability and access to experienced entrepreneurs, people who have successfully exited and are willing to give of their time. There is an over-abundance of paid business consultants!
- ✓ Funding for establishment of a team.

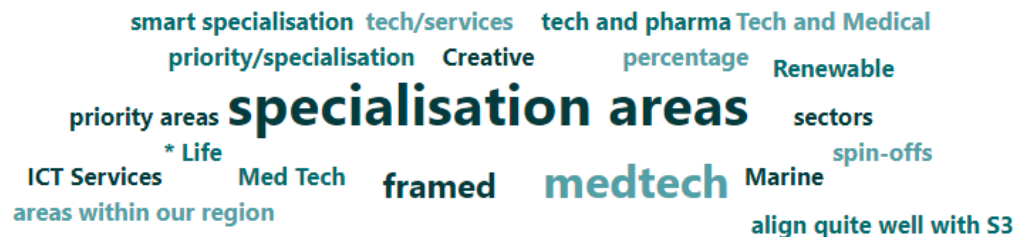
- ✓ 3 respondents replied that there were not sure, and 3 did not provide any suggestions.

Conclusions for this section

There is a clear acknowledgment of the funding supports that are in place to support commercialisation, but this is also balanced out by the acknowledgment that some enhancements would be required to make the transparency greater and navigation easier. It is highlighted that one size all approach is not always applicable, for example with programmes supporting hiring in of business lead vs researcher as business lead. Furthermore, respondents call for greater peer networks and supports, as well as greater linkages, with one respondent calling for greater mainstreaming of spinoffs into the start-up support processes.

3.1.7 Smart Specialisation Strategy (S3)

- Do you think that a higher percentage of the spin-offs created in your region are framed within the priority/specialisation areas defined by the region, or on the contrary, do you think that there are no significant differences?



The respondents provided suggestions and comments as follows:

- ✓ More spinouts in STEM, these align quite well with S3.
- ✓ Yes, medtech is definitely dominant. We are seeing an increase in tech/services/food too which is great to see from a maturation perspective.
- ✓ Yes, funding related to specialisation areas defined.
- ✓ Yes.
- ✓ No I don't agree that there is alignment between priority areas and spinout sectors.
- ✓ Yes, I think a higher percentage of the spin-offs created in my region are framed within the priority/specialisation areas defined by the region.
- ✓ I think so.
- ✓ Yes, smart specialisation tends to be addressed.
- ✓ I think there are not enough framed withing the priority/specialisation areas.
- ✓ Don't think startups are yet aligned by regional s3 focus.

- ✓ <https://enterprise.gov.ie/en/publications/publication-files/national-smart-specialisation-strategy-for-innovation-2022-2027.pdf> These are our areas of sectoral strength and potential opportunity. I have put stars beside the spinoffs that I have observed, but this is anecdotal based on what I see, not quantitatively - Advanced Manufacturing and Engineering; - Audio visual/Creative; - Marine and Blue Economy; - Renewable energy, Climate Change mitigation and sustainability; * - AgriFood and AgriTech; * - ICT and ICT Services; * - Life sciences, Med Tech and Medical Devices. ***
- ✓ Not a strong factor.
- ✓ I believe they are framed within the specialisation areas within our region particularly in med tech and pharma.
- ✓ No significant difference.
- ✓ In general, yes, like in Medtech and ICT. To achieve the same in other areas (like renewables, Marine, Agri, etc) need to infuse core Digital skills with these sectors and domains at scale.
- ✓ No.
- ✓ Yes, for Medtech and Life-Sciences. No for the other 6 specialisation areas.
- ✓ Yes, within MedTech, AI and creative industries. Relatively low percentage created on green transformation, in particular in the area of fleet electrification (transport decarbonization).
- ✓ 3 respondents did not comment, and further 5 answered with either 'not sure' or 'I don't know'.

Conclusions for this section

A slightly greater majority of respondents believe that there is a good level of alignment with the smart specialisation strategies (11), as opposed to those believing such alignment to be weak or non-existent (6).

It is difficult to say, without further follow-up, why those that have responded in the negative, or not sure responded in this way – whether due to the lack of awareness of what the smart specialisation strategy (and priorities) for the region are, or whether they simply do not believe there is a deliberate alignment, as opposed to incidental alignment through influences not directly linked to policy.

3.2 SWOT Analysis

STRENGTHS

- ✓ *2 Universities in the Region, investing heavily into research*
- ✓ *Broadly a good range of supports and funding available, especially at incubation stage*
- ✓ *Generally good awareness of who to get in touch with regarding commercialisation*

WEAKNESSES

- ✓ *Perception that spin-offs are difficult to set-up*
- ✓ *On average difficult to form multidisciplinary teams*
- ✓ *Funding landscape deemed to be complicated and time-consuming to navigate*
- ✓ *Weaker availability of supports and funding at scaling stage*
- ✓ *Weak entrepreneurial culture*

OPPORTUNITIES

- ✓ *Enhanced programmatic interventions to deliver more targeted training and support for multi-disciplinary teams to be formed*
- ✓ *Greater linkages to experienced entrepreneurs, peers, industry – networking and matchmaking*
- ✓ *More flexible working contracts and university shareholding*

THREATS

- ✓ *Weakening of researchers' interest to valorise if incentives not in place or researchers moving to universities that are deemed more proactive.*
- ✓ *Inability to overcome the identified barriers to grow number of spin-offs in the region due to lack of external funding, resources or institutional lethargy.*

4 Conclusions and final remarks

The regional survey has uncovered many useful insights in terms of perceptions and attitudes towards valorisation of public research.

Some clear strengths have been identified, which included the recognition of availability of many funding options and supports, but this was counter-balanced with the identified need for refinement – in terms of creating greater transparency around how to navigate the funding options, but also the need for some more targeted interventions – that would point to both new programmatic responses and ‘tweaks’ to the funding models.

Broader factors identified for improvement included greater linkages – perception that researchers spin-out in a bubble and greater mainstreaming to the entrepreneurial ecosystem would be beneficial – measures such as peer support and entrepreneurs in residence, matchmaking with potential collaborators and great exposure to industry.

Potential improvements needed were also highlighted in the area of spinout set-up, expertise needed during this stage, support in establishing multidisciplinary teams and in general, a variety of measures to strengthen the entrepreneurial culture in general, for example, one of ideas put forward was mainstreaming entrepreneurship for researchers, rather than having it as a separate optional training option.

It was also indicated that general environment and conditions that could affect the personal risk-taking attitude of researchers could be addressed, such as greater flexibility within employment contracts to encourage exploration of entrepreneurship, but also more attractive shareholding arrangements (and easier to implement) with universities, alongside creating more of a high-profile both for processes and those who successfully completed it – acting as role models and case studies. Greater transparency was referred to numerous times, as well as the need to demystify the valorisation process, as well as supports and funding, in an enhanced way.

Learning from VIADUCT regional partners, who have good practices in these identified areas, would be extremely beneficial.