

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

Grand Est Region (France)

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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 (SATT being "society for accelerating tech transfer") (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 23 questions distributed in 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 conductive 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.

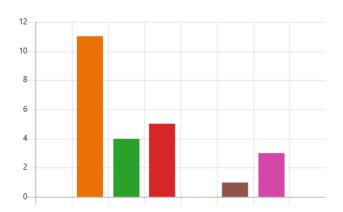
The objective of the regional study report is to compile the answers to the survey at a regional level, in order to draw some conclusions on how effective are current measures / methodologies on each region.

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

In Grand East region the survey was carried out between 04.07.2023 and 15.10.2023. The link to answer the survey was distributed to almost 50 email addresses, covering the stakeholders and other actors of the regional ecosystem. Altogether 24 answers were gathered. This panel, with a survey response rate of 50%, is considered very satisfactory considering the very specificity of the thematic and the size of the regional ecosystem.





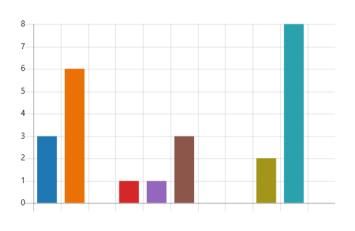






The panel is mainly composed of directors/managers (11). This illustrates a high interest in the survey and in the VIADUCT project. Project managers (5) and entrepreneurs (4) are the next categories. Their places of work were more diversified, although the most part was inserted in start-ups or public universities. However, no researcher answered the study as the survey was not disseminated directly into laboratories but rather to administrative staff working on innovation and valorisation of research results.





One third of the panel (8 respondents) represents spin-offs. This high rate enables valuable field analysis with ground-based answers. Additionally, 6 respondents came from university or higher education establishments, 3 from regional agencies and 3 others from a technology transfer office. Investors, incubators and business support organisations are also among the respondents. They correspond to the public-private ecosystem supporting the creation of spin-offs.

Regarding the panel, the significance of the study results remains modest. The answers are surely representative of the panel of 24 respondents, and the interpretation is valid within the small scope of the VIADUCT project. Especially researchers should be given a voice. The survey delivers an initial diagnosis about the supporting environment for spin-offs in the Grand Est Region and needs to be confronted to wider discussion and contributions in order to collectively adjust the corresponding policy.

In the analysis section we dig in deeper into the survey results.









3 Analysis of Greater East Region

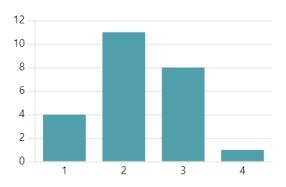
3.1 Survey Results

3.1.1 Promotion of entrepreneurial culture

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

2.25

rather negative evaluation



The respondents were supposed to grade from 1 to 4 the entrepreneurial culture among public researchers in their region, being 1 an answer corresponding to "very unsatisfactory" and 4 an answer corresponding to "very satisfactory".

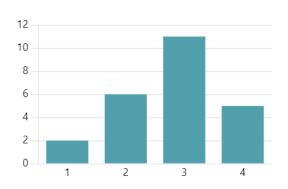
Out of a panel of twenty-four answers, the answers of the respondents made for an average of 2.25, which means the respondents found the entrepreneurial culture in their region more likely to be unsatisfactory.

Among the entrepreneurs the average is lower, making up for 1.75, while among the directors the average is 2.45.

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

2.79

rather positive evaluation



The respondents were supposed to grade the support measures to promote entrepreneurial culture from 1 to 4. While 1 stood for "very unsatisfactory", 4 stood for "very satisfactory".

The respondents' grades made up for an average of 2.79, which shows the respondents are more likely to be satisfied with those support measures.







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

A great part of the respondents answered that there should be an investment in courses and training related to entrepreneurship for the actors involved. A part of the respondents also answered that sharing experiences would be a great initiative.

"Very good information, improve the follow up and propose to the researchers to spend time in the companies (...)".

"More training and more time to detect in the research laboratories".

Conclusions for this section

This section shows that even though the respondents seem quite satisfied with the support measures to promote entrepreneurial culture, they don't seem convinced the researchers are aware of them. Therefore, the respondents suggest there should be more mentoring, formations and exchange of experiences.

On the other hand, researchers have many other priorities (research, teaching, and scientific support for valorisation projects) and might not be the good target for new training. Better communication around entrepreneurship awareness actions also seems relevant.



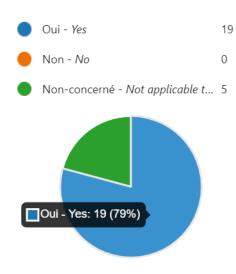






3.1.2 Search and valorisation of research results

 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?



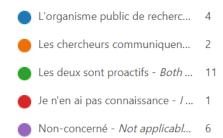
The results show that all respondents know who to turn to if they find a research result that could be brought to the market. Nobody gave a negative answer to that question.

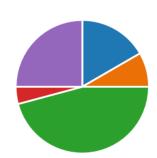
For other 21% the question didn't apply.

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

To a quarter of the respondents the question was not applicable.

But for the most outstanding part both the public research organization and the researchers are as proactive in identifying and communicating the results. The second more frequent answer was that the public research organization identifies and communicates the research results.











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

The respondents' answers offered various proposals.

Some emphasise the issue of market identification and identification of the appropriate way to commercialise research results. Some underline the necessity of training and orientation of researchers, while other pointed the need to reduce bureaucracy.

"A better (and proper) market identification prior to the creation of the structure (before the technology leaves the lab). Not to waste too much time and money in the wrong direction".

"Raise awareness beforehand among the researchers about the good measures to adopt in order to exploit and valorise their work (...)"

Conclusions for this section

This section points out that the respondents know mostly who to turn to if they identify research results that could be brought to the market. This mean that Conectus and the other SATT are well identified as the local Technology Transfer Office. The respondents also think that both the research organizations and the researchers are proactive for communicating results. However, they think there could be more training for the researchers and better market identification as well as a smoother way to value research results.



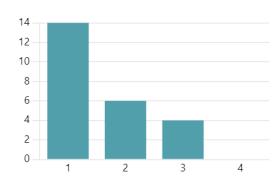




3.1.3 Business management skills of researchers

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

1.58 very negative evaluation

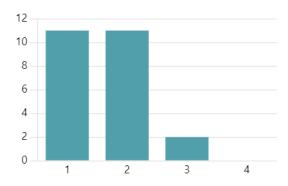


Here the results show that out of the 24 answers, being 1 the answer for "very difficult" and 4 the answer for "very easy", there was an very low average of 1.58.

According to the respondents, it is very difficult for public researchers to create a multidisciplinary team to launch a business project.

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

1.63 very negative evaluation



Here the results show that out of the 24 answers, being 1 the answer for "definitely not" and 4 the answer for "yes, absolutely", there was again a very low average of 1.63.

This clearly indicates that the respondents think researchers are not equipped with sufficient knowledge to create and manage their own spinoff.



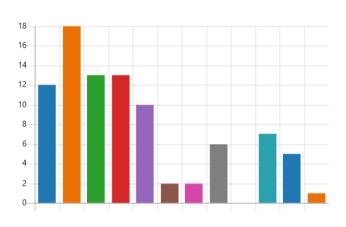




• In which business areas do you think there is a need for training? (Please select the four most important ones)

A vast majority of respondents identify a strong need for training in strategy (18 answers out of 24 respondents). Half of the respondents agrees on four other areas which could benefit from more training offers for researchers: legal, financial, management and sales issues.





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

The respondents pointed out the need for mentoring and formation of the researchers for them to be able to develop entrepreneurial culture and even to become future head of companies. But several respondents emphasized the importance of creating a complementary team in which the researcher focusses on his scientific work and advise, and specialised business professionals carry tasks linked to HR, marketing, finance, management, etc.

"Training for business leaders, work side by side with a business leader for a while, being coached by an entrepreneur".

"It is exceptional (and not necessarily desirable) for public researchers to become future CEOs. Rather, they need to be helped to get closer to entrepreneurs who are able to add value to their innovation and build a team. Subsequently, the researcher will be able to take on a position as co-director, Scientific Director or simply board member."









Conclusions for this section

This section points out that the respondents think researchers face great difficulties in creating multidisciplinary teams to launch business projects. They also mention there is little knowledge among researchers on how to create and manage a spin-off, as it does not belong to the academic culture. Therefore, the respondents think there should be more mentoring and training to develop entrepreneurial culture within public research laboratories. However, researchers rather add value as scientific or technical director, while business related task should be supported by other professionals.

Each co-founder has his/her own field of expertise and given the difficulty of setting up spin-offs from public research laboratories, a CEO business / CSO researcher couple seems to be the most efficient solution. Mechanisms for developing such collaborations exist and an inventory as well as better communication around them should be done.







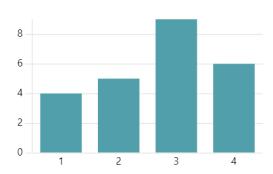


3.1.4 Regulatory and legal framework

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

2.71

positive evaluation



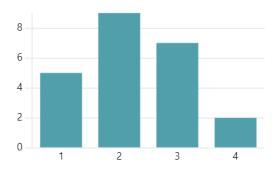
Out of a panel of 24 answers grading from 1 to 4, 1 standing for "very unfamiliar" and 4 for "very familiar", there was an average of 2.71.

Even if the panel is distributed between all the responses, the respondents feel rather familiar with the legal framework applied to spin-offs. The level of knowledge seems to vary from one person to another on this technical issue.

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

2.26

rather negative evaluation



Out of a panel of 23 answers grading from 1 to 4, 1 standing for "very difficult" and 4 for "very easy", there was an average of 2.26.

This illustrates that the respondents feel it is quite difficult for public researchers to set up a spin-off from an administrative and legal point of view.

The lowest scores were observed among the answers of entrepreneurs, followed by the project managers and directors. The directors' opinion led up to an average of 2.6, contrasting with an average of 1.5 amongst entrepreneurs.







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

Some respondents recommend mentoring process or training sessions especially in the early stage of a spin-off creation.

Other pointed out the great utility of organisations such as the incubator SEMIA and the technology transfer offices SATT, which can both oversee and analyse the regulatory and legal framework and follow up innovation projects.

"Organisations such as SEMIA help in this regard, giving advice and guidance, but having access to a course to understand the basics would be helpful. It would make it easier to know what questions to ask, and to know what kind of lawyers are needed".

"With efficient tools, such as the SATT Conectus".

"The administrative procedures are simple. The complexity lies in the strategy for valuing innovation, in the constitution of the team and in the distribution of roles and capital shares. It is essential that these parameters are designed to evolve easily."

Conclusions for this section

Even though respondents answered that they are familiar with the legal framework regarding spin-offs, they agree that researchers face great challenges to create a spin-off. They rather think that the structures involved in valorisation (incubators and SATT) have the appropriate skills and knowledge to advise and support researchers and future entrepreneurs. It seems necessary systematically refer people to these structures, from the first research results to the actual creation of a spin-off.

Despite a rather negative assessment of this section because setting up a spin-off out of research results is a tough task, the various supporting actors seem to provide an adequate response.







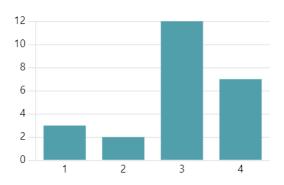


3.1.5 Funding and financing mechanisms

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

2.96

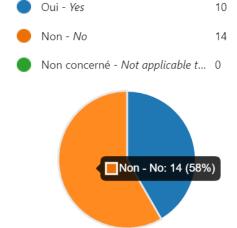
very positive evaluation



Out of a panel of 24 answers grading from 1 to 4, 1 standing for "definitely not" and 4 for "yes, absolutely", there was an average of 2.96.

This high result shows that the respondents feel very aware of the regional existing funding support mechanisms for spin-offs.

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



However, the majority of the respondents thinks that public researchers do not know where to obtain funding for the valorisation of their research results through a spin-off.







 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 highlight a contradiction: there are many funding mechanisms in Grand Est Region and on national and EU-level, but financing a spin-off still is a key to cross the "Death Valley" of innovation.

The respondents first advise to delegate the financial questions to facilitators such as incubators and SATT, and second to raise awareness among researchers with training about how to navigate between calls and apply for the relevant financial supports for spin-offs.

"As soon as entrepreneurs are supported by the SATTs and then the incubators, they are given a good awareness of the financing possibilities."

"There are already plenty of [funding] solutions, maybe too many which makes it difficult to read. Work on the promotion of these tools seems to be a plus."

"There is a deficit of investment funds in Europe, although this has improved significantly over the last ten years."

"Maybe have an excel summary sheet of the different subventions and funding available, their requirements, level of support (e.g. 40% of a project) deadlines, eligible fees (e.g. cover salaries)."

Conclusions for this section

The respondents believe that they are aware of the financial mechanisms for spin-offs. However, they are not so sure that researchers know how to obtain the fundings provided by those financial mechanisms. High profile researchers are familiar with funding for research projects at national and European level, while spin-off CEO should take over the task of raising money for the tech transfer and market entry. Finally, the respondents agree that there is a need for professional support and training of the researchers and spin-off creators regarding better use of the financial mechanisms available. The challenge is not necessarily to increase the number nor the volume of the funds, but to target them efficiently.







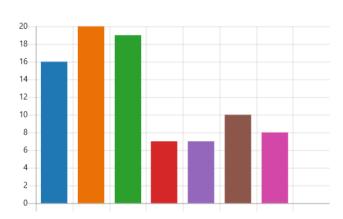


3.1.6 Business creation and consolidation

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

The respondents name three key fields which are essential to be supported to set up a spin-off business: funding opportunities, incubation and advice about law, tax and finance. None of the proposed answers seems irrelevant: contact network, support for the establishment of a team, training and business consultancy.

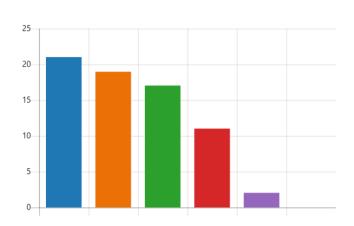




At what stages in the consolidation of a spin-off are there specific support programmes / initiatives in your region?

A large majority of the respondents know specific support programmes and initiatives dedicated to the creation of spin-offs in the Grand Est Region. They almost all mention the stages of incubation, venture building and scaling-up. Half of them is also aware of initiative to support internationalisation strategies.











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

Even if the section refers to business creation and consolidation, many of the respondents focus on financing aspects: incentives for motivating researchers, more early risky funding opportunities, financial support for export strategies, a venture capital fund dedicated to technologies from public research...

On the other hand, some expressed doubt about these next steps in the lifetime of a spinoff. Spin-offs should ultimately be profitable on their own without any financial public support. Help for network inclusion is mentioned as a good tool for scaling-up.

"As explained, more early funding opportunities to truly be able to perform technical developments."

"Before scaling up, you need to find ways to experiment and refine the project."

"Personally, we're already having a hard time with that alone, so we'll see about scaling up later."

"I'm not sure it's still public responsibility to support successful spin-offs. Like any business, they need to be self-sufficient and solid in the market."

Conclusions for this section

Respondents think the essential support for setting a spin-off are in the areas of funding, incubation and legal, fiscal and financial consultancy. Very well-known support programmes in the region include incubation, venture building and scale-up. The financial aspect stands out as a crucial point in every stage of a spin-off creation.







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?

Only 9 of the 24 respondents answer this question and the expressed opinions are very mixed. A few answers express being unfamiliar with the Smart Specialisation Strategy of the Grand Est Region. Others agreed that research goals and spin-offs are quite aligned with the specialisation priorities as defined by the S3 because of the financial opportunities. Last ones underlines that research choices and spin-off creations are rather governed by two factors: the subjects covered by the local laboratories, schools and universities on the one hand, the market readiness on the other hand.

"Are there really any areas of activity targeted by the S3 in the Grand Est? I'm not aware of this because I don't see a difference between start-ups in different sectors."

"Yes, I think the priority areas of the regional strategy are infusing into the innovation ecosystem. SATTs, incubators, seed funds are aligned with these."

"I would say that if they are not in frame with the priorities of the region and the national level there is no chance to find any opportunities to fund or to develop the spin off".

"S3s create a ripple effect and increased visibility."

"No, I think it's very difficult to impact public research in this way. We will remain opportunistic, unless we work on a 10-year horizon (but we will be at a more global, national or even European level): we plant a seed in the heads of researchers today that will perhaps give birth to a start-up in 10 years."

"The creation of spin-offs is also linked to the schools present in the territory that train researchers; Interactions during studies, or post-studies (hackathon, etc.) generate projects."

Conclusions for this section

Respondents have very different and even opposite opinions on the Smart Specialisation Strategy of the Grand Est Region. Two reasons seem to explain this dissensus: a lack of communication about the regional policy and low confidence in the power of public action in the competitive field of spin-offs. Some respondents welcome the beneficial impact (mostly financial) of the strategy in the targeted supported areas, while other respondents do not see a strong leverage capacity.







3.2 SWOT Analysis

STRENGTHS

Familiarity by respondents with the legal framework regarding spin-offs.

Actors are aware of who to report to: SATT and incubators.

Existence of good support measures to promote entrepreneurial culture.

Numerous funds and financial mechanisms.

WEAKNESSES

Low knowledge among researchers on how to create and manage a spin-off.

Difficulty for researchers to create teams to launch business and to set a spin-off.

Some financial gaps in the creation process of a spin-off.

OPPORTUNITIES

Investment in mentoring, training and exchange of experiences towards the researchers.

Communication and information about the S3 startegy.

Mobilisation of EU framework.

THREATS

Researchers leaving sustainable scientific work in public laboratories for risky spin-offs.

Multiplication of projects calls and of funding application processes.

Scattering of support measures.









4 Conclusions and final remarks

This online survey was elaborated in the framework of the INTERREG Europe project VIADUCT, which aims at "valorising public research to drive technology transfer and commercialisation through the creation of spin-off companies". The panel consists in 24 respondents from the innovation ecosystem and the VIADUCT Regional Stakeholders' Group from the French Grand Est Region. Technology transfer professionals and spin-off founders, but no researchers, responded to the 23 questions long survey in the summer of 2023. Accordingly, the survey delivers an initial diagnosis about the supporting environment for spin-offs in the Grand Est Region and needs to be confronted to wider discussion and contributions in order to collectively adjust the corresponding policy.

The respondents in this survey have highlighted several key points concerning the support and promotion of spin-offs in the Grand Est Region.

While respondents generally expressed satisfaction with the existing measures to **promote entrepreneurial culture**, they were not entirely convinced that researchers make the most of these resources as their job focusses on other priorities (research, teaching and scientific support for valorisation projects). As a result, the panel emphasized the importance of increasing communication, training and fostering greater exchange of experiences to ensure that researchers can embrace the valorisation potential of their research without being offered too much training.

In terms of **identifying research results** with market potential, respondents believed that researchers mostly knew where to turn for assistance thank to the presence of Conectus and other SATT on the territory. They also recognized that both research organizations and researchers were proactive in communicating their results. Nevertheless, it was pointed out that there is room for improvement in enhancing researchers' ability to identify market opportunities and effectively value their research outcomes.

The survey findings also pointed out that researchers encountered difficulties in forming multidisciplinary teams to **launch business projects**. There was a perceived lack of knowledge among researchers about how to create and manage a spin-off. To address these issues, the respondents suggested more mentoring and training programs, especially in the areas of strategy as well as legal and financial aspects. But one key result of the study is the **importance of task repartition between researchers and business professionals**. While researchers need an entrepreneur culture and basic knowledge on spin-off, it is better for the company balance that they concentrate on scientific development and technical advice. They can team with trained professionals for HR, marketing, management, etc. The spin-off would benefit from a complementary team rather than from a multi-tasking researcher.

Most of the respondents declared themselves familiar with the **legal framework governing spin-offs**. However, they believed that researchers faced challenges in establishing spin-off ventures. To facilitate the regulatory and legal framework, they mentioned the importance of







supporting organisations like the Quest For Change and SEMIA incubators and the SATT like Conectus.

The respondents are aware of **numerous and disparate sources of funding available** for spin-offs. Yet, it remains complicated for spin-off founders to access the funding provided through these mechanisms. It was questioned whether public funding should support every step of a spin-off consolidation from the early stages through scaling-up to internationalisation.

Finally, the panel believe essential support areas for setting up a spin-off include funding, incubation and legal, fiscal and financial consultancy. The **existing support programmes** in the region are well-known and focused on incubation, venture building, and scale-up. The **financial aspect** was repeatedly identified as a key success factor. In this context, the **Smart Specialisation Strategy** could play a stronger role: if it were better known, it could have a significant leverage effect in a few targeted sectors.

