



SCAR STARTUP & SCALEUP TASK FORCE Report

Siobhán Jordan, Teagasc and Jürgen Vangeyte, ILVO | June 2026

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Executive Summary

The SCAR Startup and Scaleup Task Force was established at the request of the European Commission to identify how Research and Innovation (R&I) can better support startups, scaleups and innovation-driven business across agriculture, forestry, rural areas and food systems. The work contributes to the preparation of the European Union (EU) research and innovation strategic approach to be published in 2026: an EU strategic approach to R&I supporting agriculture, forestry, rural areas and food systems. The Task Force also supports wider EU priorities linked to competitiveness, sustainability, resilience, the bioeconomy and the transition towards sustainable food systems. The report uses the term “agrifood and food systems” to reflect the Task Force’s focus on agriculture, forestry, primary production, processing, bioeconomy, rural areas and wider food innovation ecosystems, while also recognising broader green and blue economy dimensions.

The report is based on evidence collected through a targeted questionnaire disseminated across Member States (MS) by the SCAR Startup and Scaleup Task Force. A total of 49 questionnaires, representing innovation examples and case studies, were analysed. The survey captured qualitative and quantitative insights from startups, scaleups, Small and Medium-sized Enterprises (SMEs) and innovation ecosystem actors across agriculture, forestry, food systems and the bioeconomy. In addition, the report was informed by workshop discussions within the SCAR Startup and Scaleup Task Force, drawing on expertise from research, innovation, policy and industry ecosystems across participating MS. The findings, validated through targeted expert input from business angels and venture capital representatives, identify recurring success factors, bottlenecks and opportunities linked to the innovation-to-market pathway, particularly regarding scaling, infrastructure, regulation, investment, skills and ecosystem collaboration.

The evidence, which is consistent with wider Commission survey findings, highlights that Europe possesses a strong R&I base and significant entrepreneurial potential, but persistent barriers continue to limit the translation of innovation into scalable market deployment. Startups, scaleups and innovative SMEs face challenges related to limited access to public and private scaleup financing, limited access to pilot and demonstration infrastructure, weak commercialisation capabilities, fragmented support mechanisms across the innovation lifecycle, and complex regulatory environments.

To address these challenges, the Task Force proposes **six strategic recommendations**:

1. Strengthen and embed structured support for early-stage valorisation pathways within R&I programmes.
2. Bridge the “missing middle” in the innovation-to-market pathway.
3. Develop dedicated scaleup financing aligned with sector-specific needs.
4. Strengthen the research-industry-market continuum and multi-actor collaboration.
5. Build entrepreneurial, commercialisation and regulatory preparedness skills within R&I systems.
6. Strengthen coordination and alignment of EU R&I instruments across the innovation journey. Implementation should build on existing EU instruments, including Horizon Europe, the EIC, InvestEU, the ECF, the ECBF and the Scaleup Europe Fund, while improving coordination across the innovation journey.

The highest priorities are strengthening early-stage valorisation, bridging the Technology Readiness Level (TRL) 5-9 'missing middle', improving scaleup finance and regulatory preparedness. Delivery will require coordinated action by the European Commission, MS and existing EU funding and innovation instruments

The findings highlight the importance of identifying promising research outcomes at an early stage, providing structured support to accelerate their progression towards commercialisation, strengthening multi-actor approaches, and better alignment between sector-specific (for agriculture, forestry, rural areas, food systems and the bioeconomy) and sector-agnostic funding instruments. A cross-cutting finding of the report is the importance of supporting faster innovation-to-market pathways, particularly in agrifood, food-tech and bioeconomy sectors where approval timelines and fragmented implementation can significantly influence commercialisation and investment decisions.

Taken together, the findings demonstrate that strengthening valorisation requires more than support for research excellence alone. Future EU R&I frameworks have an opportunity to create more connected and seamless innovation ecosystems that align research, infrastructure, finance, skills, regulation and market deployment. Such an approach can support resilient (rural) development, sustainable agrifood systems and long-term European competitiveness.

1. Strategic Context and Mandate

The European Commission will publish in 2026 an EU strategic approach to R&I to support agriculture, forestry, rural areas and food systems.

In February 2025, the Commission adopted a **Vision for Agriculture and Food** outlining an EU agri-food system that is attractive, competitive, sustainable and fair for current and future generations by 2040. In that Vision, knowledge and R&I are seen as catalysts of change, and the Vision recognises that it will be important to develop a new **EU strategic approach to R&I to improve the competitiveness, sustainability and resilience of agriculture, forestry and rural**

areas. This new R&I strategic approach will help target investments efficiently, align future priorities with scientific developments, and grasp new opportunities.

In July 2025, the Commission adopted the **European Life Science Strategy** to make Europe the most attractive place for Life Sciences. A key action within this strategy is the development of a **strategic R&I agenda on food systems** to foster the creation of **competitive, sustainable and resilient food systems solutions**. The food and drink industry is the largest manufacturing industry in the EU featuring a significant proportion of SMEs. Safe, healthy, nutritional and sustainable food systems are essential for EU priorities, in particular “sustainable competitiveness and prosperity” and “quality of life”.

The new EU strategic approach to R&I to support competitive, sustainable and resilient agriculture, forestry, rural areas, and food systems will focus on stimulating the EU R&I ecosystem and the creation of startups and support for scaleups and innovation driven SMEs; accelerating the uptake of new knowledge and innovation by end users; and identifying areas for the co-creation of future R&I priorities.

The **EU Startup and Scaleup Strategy adopted in May 2025** complements and reinforces the ambitions set forth by the European Life Science Strategy and the Vision for Agriculture and Food. It aims to make Europe the best place in the world to launch and grow global technology-driven companies. It sets out legislative, policy and financial support measures, at both EU and MS level, to address the needs of innovative companies throughout their development and to shift the European economy towards a more entrepreneurial, innovative model.

The **Strategy for a Competitive and Sustainable EU Bioeconomy**, adopted in November 2025, also outlines steps to support startups and scaleups and SMEs by addressing the financial barriers and facilitating market deployment. The tools include improving access to finance, bridging EU and national levels (including research and demonstration), accelerating first-of-kind biorefineries and facilitating access for SMEs to pilot and demonstration infrastructure to help bio-based businesses scale. These coordinated actions seek to empower entrepreneurship within the bioeconomy food innovations, while driving sustainable growth.

The better valorisation of R&I results into business creation aligns with the EU’s current proposal of the **next Multi-annual Financial Framework 2028-2034**, where, together with the next Horizon Europe (FP10), a newly established European Competitiveness Fund (ECF) is proposed to offer support for businesses and projects along the entire investment journey. That will encompass all stages of developing and manufacturing strategic technologies, products and services in Europe, from applied research through all forms of innovation, scaleup, industrial deployment, to manufacturing and market deployment. It will also include necessary investment and operational costs support, infrastructure and skills.

The **ECF** and the linked part of the next **Horizon Europe** are proposed to be structured into four Policy windows, including **Policy window 2 on “Health, biotech, agriculture and bioeconomy”**, which recognises agriculture, food systems, forestry and rural areas as strategic priorities.

Within this context, the Commission asked SCAR for advice on the better valorisation of R&I ideas into business creation, startups and scaleups through the establishment of a dedicated Task Force until June 2026 with the option to extend if needed.

2. Approach and Methodology

For clarity, the report primarily uses the term “agrifood and food systems” to reflect the full scope of the Task Force, which is anchored in agriculture, forestry, rural areas, bioeconomy and food innovation ecosystems. The inclusion of “agrifood” is intended to maintain a clear connection to primary production, farming, processing and the wider innovation value chain, while recognising that food systems also encompass broader green and blue economy dimensions.

A questionnaire (see Annex 1) served as the primary data source for this report. Its objective was to capture the experiences and recommendations of SMEs and Startups regarding the innovation chain within the EU and to identify concrete case studies illustrating common bottlenecks and barriers, as well as key success factors for the valorisation and scaling of R&I results.

The questionnaire comprised a combination of multiple-choice and open-ended questions, allowing for both quantifiable results and more in-depth qualitative insights, including detailed perspectives and individual case descriptions. To facilitate the identification and follow-up of particularly relevant case studies, the questionnaire was not administered anonymously.

Members of the SCAR Startup and Scaleup Task Force (SUSU TF) (see Annex 3) disseminated the questionnaire to SMEs and Startups in participating MS from 20th March 2026. Data collection closed on 30th April 2026. This approach enabled rapid data collection across a geographically diverse and relevant sample. While the survey does not meet the criteria of a representative study, it generated valuable qualitative insights, particularly through the collected case studies. In total, 49 questionnaires were returned. Of these, 93% were completed in full. Responses were received from the following countries: France (18), Spain (8), Belgium (7), Austria (6), Bulgaria (5), Croatia (2), Italy (1), Ireland (1), Denmark (1). The majority of respondents (93%) provided open-ended answers, resulting in a substantial qualitative evidence base. The responses reflect an uneven distribution across participating MS and include perspectives from different types of innovation actors. Consequently, the report should be interpreted primarily as a qualitative assessment identifying recurring themes rather than providing statistically representative findings.

The completed questionnaires were shared with the SCAR SUSU TF for analysis. Drawing on data and responses from their respective thematic areas, the authors of the report developed targeted, actionable recommendations intended to inform the forthcoming strategic R&I frameworks.

In addition to the survey findings, the report was informed by targeted expert input from business angels and Venture Capitalists (VCs) and workshop discussions within the SCAR SUSU TF,

drawing on the experience of members from research, innovation, policy and industry ecosystems across participating MS.

Figures in Annex 2 summarise the responses received and the analyses undertaken.

3. Key Success Factors for Valorisation and Scaling

Scaling innovative companies in the food, agriculture, forestry, rural areas and food systems sectors is central to achieving Europe's strategic sustainability objectives, resilience, and competitiveness. Compared to other sectors, scaleup pathways in these domains are often more complex due to stringent regulatory requirements, lower returns on investment, long development cycles, and specific infrastructure needs.

These challenges are often amplified in smaller and more peripheral markets, where domestic demand is limited and firms need to adopt an 'export from day one' strategy. This can be further compounded by the relatively limited presence of large multinational or industrial partners that can support scaleup activities, market access and open innovation collaboration. Evidence from the 49 case studies across nine EU MS (see Annex 2) highlights a set of recurring success factors, which can be grouped into five key dimensions. While many of these success factors are relevant across innovation sectors, their importance is amplified in agrifood, forestry and bioeconomy because of longer biological cycles, higher infrastructure requirements, complex regulatory environments and fragmented value chains.

3.1 Market driven demand and value proposition

A large number of case studies showed that **clearly defined market demand** is a key driver of successful scaleup. Companies and startups that formulate their value proposition clearly and address specific problems are better positioned for growth and expansion. Market opportunities are emerging in both rapidly growing and niche markets, often driven by new environmental, climate-related, and resource-efficiency requirements that require farmers and businesses to adapt their practices and operations. This, in turn, creates demand for innovative solutions, technologies and services. In addition, in many of the cases analysed, public procurement can play a pivotal role in creating early demand and reducing market risk, for example, when local authorities, public agencies or utilities act as first customers for innovative solutions.

Examples include the demand for solutions that reduce the use of chemical inputs for all farmers and producers, approaches to improve water retention in soils to mitigate drought impacts, process optimisations for food production as well as the implementation of circular economy approaches within a bioeconomy perspective and energy optimisation. A recurrent practical insight is that market education and trusted intermediaries (such as advisory services for farmers

or technical consultants in the food industry) often play an important role in supporting adoption decisions. However, in some cases, innovations that challenge established practices, roles or business models may face slower uptake and adoption.

It should also be recognised that intermediary actors may, in some situations, unintentionally hinder innovation uptake when new solutions disrupt established practices, incentives or positions within the existing ecosystem. These developments are often linked to evolving regulatory frameworks at EU level, which can both create market opportunities and shape adoption pathways.

Overall, successful innovation combines a clear understanding of market needs with strong scientific and technological capability.

3.2 Knowledge base and partnerships

A **strong knowledge base combined with effective partnerships** is a key pillar of scaleup success. Maintaining internal capabilities while accessing external expertise is critical for continuous innovation, while collaboration across the broader ecosystem significantly enhances this capacity.

Close collaboration between universities, Research and Technology Organisations (RTOs), sector-specialised technical institutes, and in some cases industry partners, provides access to knowledge, infrastructure, and practical expertise. These collaborations are often embedded within broader Agricultural Knowledge and Innovation Systems (AKIS), supporting knowledge exchange, innovation uptake, and stronger links between research and market needs

Such collaborations:

- provide access to specialised expertise, research facilities, and experimentation infrastructure;
- help reduce technological risks and improve market readiness;
- facilitate access to diverse knowledge, perspectives, and practical experience.

Practical testing and real-world validation are equally important for successful scaling. Access to pilot, experimentation and demonstration infrastructure:

- reduces technical and adoption risks;
- improves system robustness and reliability;
- supports scalability during pilot, testing, and pre-commercial phases.

However, many case studies highlight a persistent gap in the post-demonstration phase, where innovations must be validated under real operational conditions before broader market deployment. Early access to operational test environments – such as test farms, living labs, and real-world validation sites:

- enables validation under realistic conditions;
- helps build trust, credibility, and reference cases for market entry and early scaling.

3.3 Continuous finance and access to support structures

Access to **continuous and risk-friendly financing** is a core requirement for scaling. Successful companies typically rely on a mix of public and private funding sources, including grants, venture capital, corporate investment, and strategic partnerships. Public funding (at both EU and national levels) often plays a critical role in early stages by enabling first pilots, supporting initial market development, and providing a strong signalling effect for attracting industry partners, while private capital becomes increasingly important during the scaleup phase. Case evidence also points to a persistent ‘funding escalator’ gap, particularly in the later stages (TRL 7-9), where many companies struggle to bridge the distance between grant-funded pilots and fully market-driven private investment.

Beyond financing, access to **support infrastructure** is also a key enabler. This includes **technical platforms** and **pilot plants**, ranging from laboratory scale to pre-production scale, as well as **incubators, accelerators, and national R&I programmes**. Together, these supports help companies navigate early-stage uncertainty, strengthen business capabilities, and prepare for market entry. Beyond the availability of funding itself, several cases underline the importance of entrepreneurial and financial skills, including the ability to prepare strong funding applications, investor-ready business plans and credible financial projections – often supported through mentoring and coaching programmes.

Case studies further highlight the importance of aligning funding and investment with market and industry needs. This includes maintaining close links with corporate partners, engaging with angel investors, and ensuring a clear focus on end-user requirements, such as those of farmers or food industry actors. Together, these factors support more targeted development and increase the likelihood of successful commercialisation. Several case studies and stakeholder consultations suggest that access to risk capital can be more challenging for companies operating outside major innovation hubs, where local venture capital and angel investor networks may be less developed. This can increase reliance on public support mechanisms and may constrain the pace of innovation scaling and commercial growth in regional areas.

3.4 Team, structure and processes

At the core of successful scaleups are **strong, committed, and complementary teams**. This is consistently reflected in the case studies, where nearly all cases identify a dedicated team as a key success factor. Multidisciplinary teams combining scientific, regulatory and business expertise are better equipped to address scaling challenges. In addition, an entrepreneurial **mindset**, resilience, adaptability in the face of uncertainty and long development cycles, and the ability to make timely decisions are frequently highlighted as critical team characteristics.

Strong leadership and a clear long-term vision are critical to sustaining growth. Teams and organisations that demonstrate strong ownership and strategic direction are better positioned to navigate setbacks and sustain growth over time. In addition to formal structures and processes, several cases emphasise the role of organisational culture – including openness to collaboration, shared ownership, and a willingness to experiment and learn – as a critical enabler of effective scaling.

Beyond team composition, several **organisational and structural factors** were identified as important contributors to success in some cases. These include:

- **standardised processes** that enable efficiency and consistency during scaling;
- **direct sales approaches**, often supported by Software as a Service (SaaS) which shorten feedback loops, strengthen ownership of customer adoption and value creation, and improve execution quality;
- **focused go-to-market and execution strategies**, including clearly defined target customer segments, well-structured roles across sales and customer success functions, and standardised rollout processes.

For scaleups located in rural areas or smaller towns, the availability and retention of qualified staff can present a further challenge, particularly for specialist roles in business development and scaleup management, which may require targeted strategies to attract talent or hybrid working models.

3.5 Administrative simplification for reducing time to market

Efficient administrative procedures are an important enabler of successful scaleup. Consistent regulatory and funding processes can significantly reduce the time required to move from proof of concept to commercialisation by shortening development timelines and limiting the administrative burden placed on companies during industrial deployment.

Administrative procedures can slow project development and delay market entry. Many case studies suggest that successful scaling is supported by a high degree of trust and cooperation between stakeholders, combined with a shared understanding of project objectives and challenges. This can help avoid unnecessary review processes and reduce delays in decision-making. Several case examples highlighted the potential benefits of support structures based on the ‘one-stop-shop’ principle. Such structures help businesses navigate regulatory requirements, coordinate contact with multiple authorities and thereby reduce the time taken to obtain permits and approvals.

Anticipating regulatory requirements early in the innovation process is also essential to avoid delays during scaling. In addition, effective coordination between different public authorities – such as environmental, food safety, construction, and local planning bodies – is often as important as simplifying individual procedures. Better coordination can help avoid contradictory signals and repeated reviews. At the same time, startups, scaleups and SMEs that have well-organised digital

workflows and make effective use of digital tools are often better equipped to cope with unavoidable administrative requirements. Digital tools can support more efficient documentation, reporting, compliance tracking, permit management and communication with authorities. While digitalisation cannot replace the need for administrative simplification, it can reduce internal transaction costs, improve preparedness and help companies navigate complex procedures more effectively during scaling.

Success factors summary

Case study insights highlight the importance of supporting market readiness beyond R&I. Many companies face bottlenecks in later-stage development (TRL 7-9), indicating a need for stronger support for go-to-market capabilities, scaling infrastructure, and commercial deployment. Measures such as improved regulatory clarity, more predictable market demand, and stronger value chain integration can further facilitate the transition from innovation to industrial application.

To accelerate scaling and increase success rates, several recurring needs were identified:

- improved access to funding, risk financing, particularly for scaling operations;
- stronger access to pilot, demonstration and real-world validation infrastructures;
- improved entrepreneurial, commercialisation and regulatory skills;
- shorter time to commercialisation, including faster proof-of-concept and scaleup phases, as well as reduced administrative burden;
- stronger collaboration and strategic alignment between research organisations, industry, investors, founders, shareholders, end users and public authorities throughout the scaling process, particularly during commercial deployment and financing phases

Taken together, these insights suggest that policy efforts should not only support R&I, but also invest in integrated scaleup support programmes (especially for TRL 7-9), skills development training (especially in the area of regulation), targeted demand side instruments (such as innovation-oriented public procurement), scaleup infrastructure (pilot and demonstration facilities, bioeconomy hubs) and fast track procedures for strategically important projects. These success factors form the basis for the identification of bottlenecks and the development of targeted EU actions in subsequent sections.

4. Key Bottlenecks in the Innovation - to - Market Pathway

European startups and scaleups in the sectors of agriculture, forestry, rural areas and food systems face a range of critical barriers and bottlenecks that hamper the valorisation of R&I results. These barriers slow growth, reduce returns on innovation, and prevent promising solutions from

reaching the market, ultimately affecting the competitiveness of the sector. This section, supported by Figures 11 and 12 (Annex 2), outlines the principal barriers encountered by startups and scaleups along the pathway from research to successful market entry and scaling. It also the identification of areas where targeted measures could contribute to a more seamless and rapid innovation journey within the European R&I landscape. Although several barriers are common to innovation ecosystems generally, the case studies indicate that they are particularly pronounced in agriculture, forestry, rural areas and food systems due to biological production cycles, regulatory complexity, demonstration requirements and longer commercialisation timelines

Regulatory barriers and complex regulatory frameworks constitute a major hurdle for innovative businesses, not only at market entry but also during the scaling phase. Compliance with multiple regulatory requirements often entails substantial administrative burdens for those who are responsible for their implementation. In some cases, regulatory frameworks may not fully reflect operational realities or may be too rigid and not applicable for innovative and disruptive solutions, thereby creating uncertainty and additional frictions in implementation. The most frequently cited issues related to product approval processes, permitting requirements, certification procedures and differences in national implementation across MS. These difficulties are particularly pronounced in sectors where innovation adoption depends on validation and acceptance by multiple actors across the entire value chain rather than a single customer. As a result, regulatory barriers can increase procedural and operational complexity, thus substantially delaying market entry and scaling.

This challenge is further exacerbated by market fragmentation across the EU. Regulatory frameworks are applied inconsistently across MS, reflecting limited harmonisation at EU level. Stakeholders highlighted that startups are required to undergo certain administrative and technical procedures separately in each MS to achieve broader market access. Such differences in legal structures and administrative requirements create substantial barriers to scaling, especially in the agri-food sector where innovations frequently operate across geographical and jurisdictional boundaries.

The EU market is further fragmented by inconsistent and gaps in standards across the MS. This creates additional barriers to scaling, as innovations often need to undergo repeated assessments or adaptation before entering different national markets¹.

Overall, market access remains a gradual and demanding process for startups and scaleups seeking early-stage adoption. In addition to compliance with stringent regulatory requirements, the structural and risk-sensitive nature of many agri-food and bioeconomy markets can slow

¹ For example: A low-emission barn system approved for use in one country may require additional assessments or may not yet be accepted in another Member State. Similar challenges were identified for areas such as plant protection product registrations, where differing national implementation and approval procedures can create barriers to cross-border scaling and market access.

market penetration, particularly during early scaling phases. Competition with well-established market actors may further reinforce these challenges, as highlighted by a biotechnology startup.

Scaling R&I-based innovations to industrial levels often requires significant investment. **However, many startups and scaleups report a limited access to both public and private financing.**

While larger companies are often better positioned to absorb risk, startups and innovative SMEs may still require significant external financing to support expansion, industrialisation and commercial deployment of new innovations. Several respondents specifically highlighted the limited availability of specialist venture capital with sufficient sector knowledge and investment horizons appropriate to agriculture, forestry, rural areas and food systems innovation. Uncertainty regarding market acceptance, regulatory approval and return on investment can reduce investor willingness to commit capital at the scale required for commercialisation. At the same time, public funding dedicated to commercialisation phases (particularly TRL 7-8) remains limited and is often associated with complex and resource-intensive procedures. As a result, promising innovations are frequently delayed or fail to progress to industrial scale.

These bottlenecks demonstrate the need for stronger coordination between research, investment, infrastructure and market deployment mechanisms across the European innovation ecosystem.

Based on the survey findings, ten measures are outlined that could help address these bottlenecks and strengthen the innovation-to-market pathway for startups and scaleups in agriculture, forestry, rural areas and food systems:

- i. **Develop earlier and more accessible funding instruments** for pilot, demonstration and post-demonstration real-world scaleup phases, helping bridge the gap between research, validation and market entry. Several case studies highlighted the need for more flexible funding mechanisms that support operational deployment, industrial testing and first commercial applications.
- ii. **Strengthen access to scaleup financing**, including high-risk public funding instruments for startups and scaleups operating at TRL 7-8, particularly during post-demonstration deployment and industrial scaling phases where private investment is often difficult to secure. Case studies also highlighted the importance of blended finance models, patient capital and investor mechanisms better aligned with longer development timelines in agrifood and bioeconomy sectors.
- iii. **Expand support for testing and experimentation environments**, including Testing and Experimentation Facilities (TEFs), living labs, pilot plants and demonstration sites that enable real-world validation, operational deployment and scaling.
- iv. **Support standardisation, interoperability and shared digital infrastructures**, including Internet of Things (IoT) systems and data spaces, to facilitate wider adoption and integration of innovative solutions while contributing to secure and trusted European digital ecosystems.

- v. **Reduce administrative burden for startups and SMEs** through simplified application, reporting and project management procedures across EU and national support programmes.
- vi. **Strengthen public support services and regulatory guidance mechanisms** that help startups, scaleups and SMEs navigate regulatory and administrative requirements more effectively, particularly in agrifood, food-tech and bioeconomy sectors.
- vii. **Support researcher-investor networks and matchmaking activities** during TRL 5–6 to strengthen collaboration between research organisations, industry and investors, improve access to private capital and facilitate exchange of best practices.
- viii. **Facilitate access to blended finance, micro-credit schemes and entrepreneur-targeted funding**, combined with tailored advisory, mentoring and business development support, particularly for rural entrepreneurs and early-stage innovators.
- ix. **Support structures that enable startups, scaleups and SMEs to design, prototype and test digital, technological, nature-based and social innovations** across agriculture, forestry and food systems, including primary production, processing, logistics and market access. Greater emphasis should also be placed on collaboration and knowledge-sharing across value chains and rural innovation ecosystems.
- x. **Improve access to digital and hybrid education and training programmes** that strengthen entrepreneurial, commercialisation and regulatory preparedness skills, while supporting collaboration between researchers, startups, SMEs and rural entrepreneurs.

5. Cross-Cutting Issues for Startups and Scaleups in Agriculture, Forestry, Rural and Food Systems

Startups and scaleups are increasingly important actors in supporting the transition towards more sustainable, resilient and competitive agriculture, forestry, rural economies and food systems. Across the case studies, several recurring cross-cutting issues were identified that influence the ability of innovative companies to emerge, scale and achieve market impact. These issues extend beyond individual technologies, highlighting broader structural conditions within the European innovation ecosystem.

Addressing these challenges within future EU research and innovation programmes could strengthen the valorisation of R&I results and improve the overall innovation-to-market pathway.

5.1 Access to finance and investment continuity

Access to finance remains one of the most significant cross-cutting challenges across the innovation lifecycle. Startups and scaleups in agriculture, forestry and food systems often operate in environments characterised by long development cycles, seasonal production systems, regulatory uncertainty and delayed returns on investment. These characteristics can reduce attractiveness for conventional private investors and increase dependence on public support mechanisms.

The evidence highlights the importance of financing models that better support progression from research and demonstration towards commercial deployment, particularly during later-stage development and scaling phases. The findings also point to a persistent financing gap during post-demonstration and operational deployment phases, where innovations require significant investment to move from successful validation towards industrial scaling and market uptake.

5.2 Skills, entrepreneurship and talent development

Innovation in agriculture, forestry and food systems increasingly requires multidisciplinary expertise that combines scientific, technical, digital and business capabilities. However, many rural regions continue to face skills shortages, limited entrepreneurial training opportunities and difficulties attracting and retaining specialised talent.

The findings suggest a growing need to strengthen entrepreneurial and commercialisation capabilities within research and innovation systems, including support for innovation management, business development and navigation of regulatory and market requirements.

5.3 Digital infrastructure and data ecosystems

Digital technologies such as precision agriculture, satellite monitoring, artificial intelligence (AI) and digital traceability are increasingly transforming agriculture, forestry and food value chains. However, their deployment depends on reliable digital infrastructure, connectivity and interoperable data systems.

Several case studies highlighted the importance of shared digital infrastructures, interoperable data ecosystems, data spaces and open yet trusted data-sharing approaches to support adoption and scaling. Access to high-quality, interoperable and reusable data is increasingly recognised as a critical enabler for innovation, AI development and competitiveness in agriculture, forestry and food systems. However, in some parts of the ecosystem - for example in the AgTech and machinery sector - limited interoperability, restricted data access and platform dependency can create barriers for startups, scaleups and SMEs, potentially limiting innovation uptake and market entry.

In addition, access to AI-ready data environments, secure computing infrastructures and reliable connectivity is becoming an increasingly strategic prerequisite for innovation and

competitiveness in agriculture, forestry and food systems. Strengthening such infrastructures can also contribute to European digital sovereignty and reduce dependency on non-European digital platforms and data ecosystems.

5.4 Sustainability and climate resilience

Sustainability and climate resilience are central drivers of innovation across agriculture, forestry and food systems. Many startups and scaleups are developing solutions linked to circular bioeconomy models, sustainable land management, climate adaptation and resource efficiency.

The findings highlight the importance of enabling real-world testing and demonstration of sustainable innovations, while ensuring that innovation systems support long-term environmental, societal and economic resilience.

5.5 Innovation ecosystems and collaborative networks

Strong innovation ecosystems and collaboration networks are consistently identified as important enablers of successful scaling. Startups and scaleups benefit from close interaction with research organisations, farmers, cooperatives, investors, advisors, public authorities and industrial partners.

In addition, stronger integration between research, testing infrastructures, financing actors and market deployment mechanisms is important to support smoother innovation-to-market pathways.

The evidence also highlights the important role of regional innovation hubs, living labs, agricultural research stations and experimental farms in supporting knowledge exchange, testing and real-world validation. These infrastructures represent valuable sources of applied expertise and practical knowledge that can support innovation uptake and commercialisation.

Cross-cutting issues summary

Taken together, these cross-cutting issues demonstrate that successful scaling depends not only on technological excellence, but also on the wider innovation environment in which startups and scaleups operate. Future EU R&I programmes have an opportunity to strengthen these enabling conditions by improving connections between research, finance, infrastructure, skills and market deployment.

Such an approach would support more effective valorisation of R&I results by strengthening connections between research, finance, skills, regulation, digital and testing infrastructures, operational deployment environments and market uptake mechanisms, while contributing to resilient rural development, sustainable agrifood systems and long-term European competitiveness.

6. Opportunities and EU Actions: Strengthening the Valorisation of R&I

The transition from research to market within agriculture, forestry and food systems presents a significant opportunity for economic, environmental and societal impact across the EU. Evidence from the case studies that responded to the survey demonstrates a strong innovation base, with nearly 1,000 high-technology jobs created across the responses, and the majority of innovations being technology-driven. However, the findings also highlight persistent gaps between research, demonstration, market validation and commercial scaling.

To support the objectives of the Vision for Agriculture and Food (2040) and the European Life Science Strategy, future EU actions could place greater emphasis on creating a more connected and continuous innovation-to-market pathway across the European R&I ecosystem.

6.1 From research to venture creation through collaborative innovation

Approximately 60% of the analysed case studies originated from universities or national R&I programmes, reflecting the strong representation of publicly supported R&I actors within the survey sample and highlighting the important role that public research can play in innovation and business creation. The findings indicate that many startups experience difficulties during the early stages of commercialisation due to limited alignment between research outputs and operational, market and deployment realities. Case study evidence suggests that successful scaling is more likely where a multi-actor approach is employed and where diverse stakeholders – including farmers, industry, consumers and public authorities – are engaged early in the innovation process. The findings highlight the importance of inclusive and collaborative R&I processes that strengthen connections between research, innovation actors and end users. This includes approaches that support co-creation, real-world validation and clearer pathways towards adoption and deployment. Effective valorisation depends on the ability of R&I systems to support the translation of research results into solutions that respond to clearly identified societal, environmental and market needs.

Future EU R&I instruments could further strengthen support for business creation and commercialisation arising from public research; for example, by leveraging initiatives such as European Institute of Innovation & Technology (EIT) Food and Horizon Europe Pillar II (Cluster 6) to formalise valorisation. This could also include mechanisms that support entrepreneurial pathways for researchers, facilitate spin-off creation and strengthen collaboration between research organisations, startups and industry. Examples could include mechanisms that facilitate temporary mobility between academia and entrepreneurship, enabling researchers to lead spin-off and commercialisation activities while preserving academic career continuity.

Greater support for knowledge transfer, intellectual property management and cross-border collaboration may also help improve the scalability and market readiness of research-based innovations. Examples include the European Intellectual Property Helpdesk providing standardised "Inclusive IP" templates to ensure fair benefit-sharing among multi-actor partners, ensuring spin-offs can commercialise results across borders while maintaining stakeholder trust.

Strengthening **collaborative innovation processes** could improve the capacity of startups and scaleups to develop solutions that are technically robust, market-relevant and aligned with broader sustainability objectives. This would support more effective translation of European research excellence into business creation, innovation uptake and sustainable agrifood system transformation.

6.2 Bridging the “missing middle” through systemic operational validation

Approximately 46% of analysed case studies required significant investment in infrastructure, while insufficient access to pilot plants, testing environments and demonstration facilities was identified as a recurring bottleneck. This challenge is particularly significant for bioeconomy and agri-food startups that require industrial-scale testing and validation. While many initiatives benefit from strong research support, they often struggle to progress from laboratory development to field deployment due to limited access to shared demonstration and validation infrastructure. Several case studies highlighted challenges at TRL 5–6, where startups frequently lack both the capital to develop proprietary infrastructure and access to open, collaborative testing environments. In many cases, successful scaling requires not only technological validation, but also real-world testing and validating across operational, environmental and user contexts.

The findings highlight the importance of “living laboratories”, demonstration environments and multi-actor real world testing facilities where technologies can be evaluated alongside farmers, processors, advisors and other end users. Ongoing initiatives such as the European Commission’s **Joint Research Centre (JRC) Innovation Village**, the **European Digital Innovation Hubs (EDIHs)**, **Testing and Experimentation Facilities (TEFS)** and the **EU Mission: A Soil Deal for Europe** provide important foundations for strengthening collaborative innovation and demonstration capacity across Europe. Opportunities may also exist to strengthen connections between Soil Mission “Lighthouses” and broader EU innovation support mechanisms, improving cross-border access to specialised testing and demonstration facilities for startups and SMEs. In addition, CAP National Strategic Plans and AKIS may provide further opportunities to support on-farm testing, real-world validation and faster integration of the feedback from end users.

By strengthening the “Missing Middle” through shared testing, demonstration and real-world operational validation environments, the EU can support the transition from technological validation towards scalable deployment under practical conditions. This approach would allow innovations to be validated not only from a technological perspective, but also under real

operational, environmental and socio-economic conditions. Such validation can improve market readiness, strengthen user trust and ensure that solutions are better aligned with the practical realities of European and global food systems before large-scale deployment.

6.3 Transforming governance and navigating the regulatory environment

Regulatory barriers and complex frameworks were among the most frequently cited challenges in the case studies. These challenges were further compounded by concerns relating to market fragmentation. For startups in agriculture, forestry and food systems, such barriers can create significant delays between the completion of a prototype and commercial market entry. The case studies indicate that even where innovations are well aligned with EU sustainability objectives, market deployment can be slowed by inconsistent national implementation and high administrative burdens.

The findings suggest that market entry challenges are linked not only to technical compliance requirements, but also to broader governance and administrative processes. Several startups highlighted the difficulty of navigating complex regulatory environments while simultaneously managing business development and scaling activities. The findings indicate that startups and scaleups with stronger digital workflows and greater use of digital tools are often better equipped to manage complex administrative and regulatory procedures during scaling and cross-border deployment.

Differences in implementation and administrative procedures across MS can create additional complexity for companies seeking cross-border market access, for example navigating 27 different sets of national rules slows down European innovation compared to global competitors. The findings highlight the importance of regulatory approaches that maintain high safety and sustainability standards while supporting innovation and timely market access.

Existing initiatives such as the **EU Startup Nations Standard (ESNS)** and **European Food Safety Authority (EFSA's) pre-submission advice** provide important examples of mechanisms that can help startups navigate regulatory processes more effectively. Further opportunities may exist to expand the use of "Agile Regulatory Sandboxes" and supervised testing environments for novel foods, bio-based materials and other emerging innovations, allowing startups to engage with regulatory authorities earlier in the development process.

Furthermore, Green Public Procurement (GPP) should be used as a strategic lever, setting EU-wide targets for the procurement of innovative SME solutions in public catering and school programmes to provide a "guaranteed first market." By transforming governance, the EU does not "deregulate", it "better-regulates." This action ensures that European startups in agriculture and forestry can reach market speed while ensuring that their products are deeply aligned with the EU's environmental and social values, setting a global standard for sustainable agrifood system governance.

6.4 Financing for systemic impact and strategic capacity

While early-stage "seed" or angel investment is often available to kickstart a project, growth-stage capital is critically scarce. Approximately 39% of analysed startups cited a "lack of scaleup financing" as their primary barrier to growth (see **Annex 2, Figure 9**). The survey findings indicate that innovations in the bioeconomy and forestry sectors are particularly vulnerable, as they often require larger capital outlays and longer timeframes to reach market maturity compared to pure digital startups. Several case studies also indicate opportunities for Europe to strengthen its competitive advantage through the development and export of advanced processing technologies for agriculture, forestry, rural areas and food systems. The findings suggest that while Europe performs strongly in early-stage innovation, significant challenges remain in supporting long-term scaling and commercial deployment. This creates an "innovation migration" where the most promising EU innovations in sustainable agrifood systems are often acquired by non-EU entities or relocate their headquarters abroad to seek capital.

Financing models should therefore complement short-term, "exit-driven" venture capital with longer-term "patient capital" approaches that better reflect the biological cycles and longer development timelines associated with agriculture, forestry and bioeconomy innovation. Strengthening Europe's capacity to scale innovative companies within the EU will also contribute to broader objectives linked to resilience, competitiveness and strategic capacity in agrifood systems and the bioeconomy.

Current instruments like the **European Innovation Council (EIC) Accelerator**, **InvestEU**, and the proposed **European Competitiveness Fund (ECF)**, were identified by stakeholders as important foundations for supporting scaleup and commercialisation activities. There is a strategic opportunity to create a specific "Bio-cycle" window in the EIC Accelerator for TRL 7-9 with 10-year investment horizons. Additionally, the ECF should act as a "strategic shield," acting as a lead investor in supporting scaleups across agriculture, forestry, rural areas, food systems and the bioeconomy, helping promising European companies remain and grow within Europe, to prevent "brain drain." Finally, blended finance models should be expanded to combine InvestEU guarantees with micro-credit for rural entrepreneurs, ensuring the transition is inclusive of primary producers.

The transition to a sustainable agrifood, forestry and bioeconomy system is the greatest economic and environmental opportunity of our generation. The findings indicate that research excellence alone is insufficient without corresponding support for scaling, market uptake and industrial deployment. Implementing the proposed recommendations would go beyond just funding projects; it would build the industrial leaders of the 2040 global economy and secure a resilient, sustainable future for all European citizens.

Taken together, the findings demonstrate that strengthening the valorisation of R&I requires more than support for research alone. A more integrated innovation ecosystem – connecting research,

finance, infrastructure, skills, market validation and deployment – will be essential to support the emergence and scaling of innovative companies across agriculture, forestry and food systems.

Future EU actions have an opportunity to strengthen these enabling conditions and support a more resilient, competitive and sustainable European agrifood system and bioeconomy.

7. Targeted Recommendations

The following recommendations are derived from case study evidence and expert input and aim to strengthen the valorisation of R&I into business creation, startups and scaleups across agriculture, forestry and rural areas.

The recommendations offer solutions for:

- Stronger EU competitiveness in agri-food and bioeconomy sectors
- A more seamless innovation journey from research to market
- Improved translation of publicly funded R&I into business impact

While focused on startups and scaleups, these recommendations also recognise the important role of established companies in enabling adoption, scaling and sector-wide impact.

1. Strengthen early-stage valorisation pathways within R&I programmes

The EU should embed **structured support and incentivisation for business creation or scaling companies within research programmes**, ensuring that promising results can transition more effectively from research into market-ready solutions. This includes earlier proof-of-concept funding, stronger links between researchers and innovation actors (startups, scaleups, industry partners including the final customers), and incentives for multi-actor collaboration.

R&I programmes should also ensure that innovation is grounded in real-world needs from the outset. This requires:

- i. Early involvement of business actors and deployment partners;
- ii. Validation with end users (i.e. users of the innovative products and services developed by startups, scaleups and SMEs);
- iii. Integration of early-stage commercial logic and deployment pathways.

Stronger emphasis is needed on helping innovation teams define a clear and focused value proposition, target market and use case early in the process. Many technologies struggle to reach the market not due to lack of technical quality, but because they lack sufficient finance and support when transitioning from development to commercialisation.

Programmes should encourage innovation processes that combine technology-driven ambition with early validation in real-world environments, enabling both breakthrough solutions and effective market uptake. This balanced approach is particularly important in agri-food systems, where purely demand-driven approaches may lead to incremental innovation while purely technology-driven approaches risk misalignment with sector needs. This is reflected in the evidence which shows that many innovations originate from public R&I but struggle in the early stages due to weak market alignment and limited valorisation support.

Recent evidence highlights a structural “cost-adoption mismatch” in agrifood innovation, where the economic and operational burden of new technologies exceeds farmers’ willingness or capacity to adopt them at scale, even when technical performance is validated². This indicates that a critical bottleneck is not technological feasibility, but rather the alignment of innovations with real-world socio-economic conditions, farm-level constraints, and adoption dynamics.

An important point emerging from both the case studies and expert consultations is that the principal bottleneck is often not the availability of high-quality research or early-stage pilot activity, but rather the ability to **progress innovations successfully through commercial scaleup and market deployment**. Several factors contribute to this challenge, including long seasonal feedback loops within agriculture and food production systems, which can significantly slow iteration, validation and scaling timelines. In parallel, many innovation teams, particularly those led by scientific or technical founders, may have limited experience in commercialisation, market development and business-building activities. Stakeholders also highlighted a recurring disconnect between technology development and market readiness, with some innovations being overly technology-driven without sufficient market validation, while others attempt to scale prematurely before commercial viability and unit economics are fully understood. Collectively, these challenges reinforce the importance of integrating commercial logic, market insight and deployment thinking much earlier within R&I processes, while simultaneously strengthening entrepreneurial capability, translational expertise and alignment between innovation maturity and appropriate scaleup support mechanisms.

2. Bridge the “missing middle” in the innovation-to-market pathway

The case studies analysed for this report indicate that limited access to infrastructure and validation environments is a key constraint across Europe preventing innovations from progressing beyond prototype stage.

This concerns access to shared testing and validation infrastructure provided by research organisations, specialised facilities (e.g. Testing and Experimentation Facilities (TEFs), and European Digital Innovations Hubs (EDIHs)), and large industry-led platforms, which are often not sufficiently accessible or aligned with the needs of startups, scaleups, SMEs and end users.

² <https://digitalcommons.unl.edu/biosysengpres/83/>

At the same time, several startup case studies highlight the positive impact of existing instruments such as TEFs and EDIHs, suggesting that these mechanisms provide valuable support and deployment could be further strengthened and scaled.

Targeted EU support is needed to **bridge the gap between pilot and commercial scale** (TRL 5-8), particularly in agriculture, forestry and bioeconomy sectors where infrastructure facilities and validation are critical.

This includes investment in shared pilot facilities, testbeds, demonstration farms, on-farm testing and operational validation environments and cross-border accessible testing infrastructures. Infrastructure providers should also be encouraged to collaborate across MS to enable shared access and stronger peer-to-peer networks. At the same time, such facilities must be closely aligned with real-world conditions and recognised by farmers and industry as credible reference environments, as innovations that perform well in controlled settings are too often not considered representative for real-world deployment.

In addition, digital and data infrastructures should be strengthened to enable:

- (i) testing and validation of digital and AI-based solutions
- (ii) development of AI-ready data environments and
- (iii) secure and sovereign data sharing and reuse, specifically for the agrifood sector.

Given the strong dependency on seasonal and weather conditions in agriculture, consideration should also be given to hybrid testing approaches combining real-world validation with synthetic data and simulation environments. Access to such infrastructures should be designed in an open and agile way, not only for startups and scaleups, but also for existing companies seeking to innovate, ensuring broad sectoral impact.

3. Develop dedicated scaleup financing aligned with sector needs

A significant proportion of startups report lack of scaleup financing as the primary barrier to growth and market deployment.

The EU should introduce or **strengthen financing instruments** specifically designed for scaleup phases across agriculture, forestry, rural areas and food systems, recognising longer development cycles, greater risk for funders and higher capital intensity associated with these sectors. Instruments should be designed to reflect the biological, seasonal and capital-intensive nature of agriculture and bioeconomy innovation. Particular attention should also be given to bioeconomy innovation, where infrastructure requirements and commercialisation timelines can be especially challenging. This includes blended finance models, patient capital, and risk-sharing mechanisms tailored to TRL 7-9.

Such instruments should aim not only to support growth, but also to ensure that innovative companies can scale and remain in Europe, contributing to European competitiveness and value creation.

4. Strengthen the research – industry – market continuum

The collated evidence shows that strong partnerships, stakeholder engagement and real-world validation are key success factors for scaling innovations.

EU R&I policy should place greater emphasis on **strengthening connections** between research organisations, startups, SMEs, industry and end users throughout the innovation lifecycle. This includes supporting partnerships, networks, and knowledge exchange platforms that enable continuous feedback, co-creation approaches, faster uptake and deployment of innovation, as well as innovation intermediaries such as incubators, accelerators and venture studios that support the translation of research results into scalable business ventures.

In addition, particular attention should be given to value chain collaboration, particularly in agri-food systems, where innovation requires coordination between technology providers, e.g. machinery, primary producers, processing industry and retail and downstream actors. Stronger integration across the value chain can significantly accelerate adoption and scaling of innovation, particularly when technology providers, farmers, processors and retail actors are involved from early stages.

5. Build entrepreneurial and commercialisation capacity and skills within R&I systems

The case studies analysed highlight that skills gaps, limited business experience and weak market understanding, particularly of agriculture, forestry and bioeconomy sectors and their associated supply chains, can delay or prevent successful business creation and scaling.

The EU should support the development of specific agri-food, forestry and bioeconomy entrepreneurial skills and commercialisation capabilities within research and innovation systems, including training and mentoring programmes, mobility between academia and industry, access to experienced entrepreneurs, investors and market actors. There is also a need to stimulate hybrid profiles, e.g. valorisation managers, combining research excellence with entrepreneurial capability, ensuring that research results are actively translated into marketable products and services.

In addition, targeted training and support should be provided to help researchers and entrepreneurs better understand and navigate complex regulatory environments across MS, enabling more efficient progression from innovation to market.

In parallel, attention should also be given to supporting new business models and innovative farm-level entrepreneurship, including farmers adopting more entrepreneurial and professionalised business models, new forms of cooperation and value chain integration and stronger links between primary production and processing industry.

6. Strengthen coordination and alignment of EU R&I instruments across the innovation journey

The evidence indicates that while strong support exists at different stages of the innovation lifecycle, startups and scaleups often experience **fragmentation across funding instruments** and support mechanisms. This creates discontinuity in the innovation-to-market pathway and reduces the effectiveness of public investment.

The EU should strengthen **coordination and alignment** across R&I instruments to ensure a more seamless pathway from research to market. This includes stronger integration between Horizon Europe, EIC, EIT, CAP-related instruments and emerging mechanisms such as the ECF. Greater coherence between programmes, much clearer navigation for applicants from agriculture, forestry, rural areas and food systems and improved continuity of support across TRL stages would enable startups and scaleups to progress more efficiently.

In addition, coordination should extend beyond funding instruments to include stronger alignment with testing and validation infrastructure, digital and data infrastructures (including data spaces), AI and computing infrastructures (e.g. AI factories) and deployment and market uptake mechanisms. Strengthening European digital, data and AI infrastructures is also important for supporting technological sovereignty, trusted data governance and reducing strategic dependencies on non-European digital platforms and ecosystem. Such an approach can help startups, scaleups and SMEs retain greater control over their data, business models and innovation pathways, while strengthening their strategic autonomy and long-term competitiveness within European value chains. Ensuring that agri-food and bioeconomy sectors are fully connected to these emerging infrastructures is essential to unlock their digital and innovation potential. It is important to ensure that agri-food and bioeconomy sectors are fully integrated into these developments, given their significant but often underestimated potential for digitalisation and AI-driven innovation.

Cross-cutting theme: Improve regulatory preparedness and support faster innovation-to-market pathways

Regulatory complexity and fragmentation across MS were consistently identified as major barriers to scaling and cross-border market access, particularly in agrifood, food-tech and bioeconomy sectors where product approval timelines can strongly influence investment, commercialisation and deployment decisions.

The EU should strengthen support mechanisms that help startups, scaleups, SMEs, researchers and entrepreneurs better understand and navigate complex regulatory environments throughout the innovation journey. This could include improved regulatory guidance, earlier engagement with regulatory authorities, regulatory sandboxes, and **targeted training programmes that build regulatory awareness and market readiness within R&I systems**.

At the same time, policies should not focus exclusively on startups and scaleups but also support established companies and industry actors and SMEs in their innovation efforts, as they play an

important role in adoption, scaling and market deployment across agriculture, forestry and food systems.

8. Concluding Strategic Messages

The findings of the Task Force demonstrate that Europe has a strong research and innovation base across agriculture, forestry, rural areas and food systems, but significant challenges remain in translating research results into scalable businesses and market impact. Startups, scaleups and innovative SMEs can play an important role in supporting sustainability, resilience and competitiveness, provided they are supported through a more connected innovation ecosystem. Strengthening valorisation pathways will require better alignment between research, infrastructure, finance, skills, regulation and market deployment. Future EU research and innovation frameworks have an opportunity to create more seamless innovation-to-market pathways that support long-term European competitiveness and sustainable food system transformation.

Annexes

Annex 1: Questionnaire

SCAR Task Force on Valorisation of Research and Innovation into Business Creation, Startups and Scaleups

CASE STUDY QUESTIONNAIRE

Fields marked with * are mandatory.



Dear colleague,

Thank you for sharing your valuable time!

This survey has been requested by the Standing Committee on Agriculture Research's (SCAR) Task Force on Startup and Scaleups and will be used to advise the European Commission and European Member States and Associated Countries. The survey is organised by a Horizon Europe funded project, named RefreSCAR, aiming to support the SCAR Working Groups: <https://scar-europe.org/home-scar/refrescar> (Grant Agreement number 101060553).

The SCAR Startup and Scaleup Task Force is collecting examples from Member States to better understand how R&I results are valorised and translated into innovative businesses in agriculture, forestry, rural areas and food systems. The initiative sits within a broader EU policy context, including the Vision for Agriculture and Food (2040), the European Life Science Strategy, the EU Startup and Scaleup Strategy, the Bioeconomy Strategy, and preparations for the next Multi-Annual Financial Framework (2028–2034). The work aims to support competitiveness, sustainability and resilience in Europe's agri-food and bioeconomy sectors by strengthening the translation of research and innovation results into market deployment and business creation.

The objective is to better understand how research and innovation results are translated into business creation and market deployment, and to identify the conditions that support startups, scaleups and innovative SMEs across Europe. The objective of this questionnaire is to identify concrete examples of startups, scaleups and innovative SMEs that have emerged from research and innovation activities, and to analyse the pathways that supported their development from research to market. Cases may represent both successful outcomes and initiatives that faced challenges, as both provide valuable insights.

This questionnaire is intended for SCAR delegates, national ministries, research organisations, innovation agencies and other ecosystem stakeholders who can provide examples of startups, scaleups or SMEs originating from research and innovation activities.

These examples will help the Task Force:

- Map successful practices across Europe;
- Identify enabling factors and barriers in the innovation journey;
- Assess the effectiveness of funding, infrastructure and policy instruments;
- Inform recommendations to strengthen the valorisation of R&I within European innovation ecosystems.

This work will contribute to the development of the EU strategic approaches to research and innovation for agriculture, forestry and rural areas, and to the strategic R&I agenda on food systems.

Data collected in this survey will be managed according to the Survey Privacy Statement (see attached file below). By submitting your response, you agree to take part in this survey and you confirm that you have read and fully understand the Survey Privacy Statement.

Privacy Note of RefreSCAR

RefreSCAR Privacy Note

[RefreSCAR SCAR SUSU TF Survey Privacy Statement V2.pdf](#)

1. Consent for Data Processing

To complete this survey, we need your consent to process any personal data you have provided in accordance with the General Data Protection Regulation (GDPR). Your data will be used solely for the purposes of this survey and will not be shared with third parties without your explicit permission. You can withdraw your consent at any time.

* Do you consent to the processing of your personal data for the purpose described above?

- ☐ Yes, I consent
- ☐ No, I do not consent

USE OF THE INFORMATION PROVIDED

The information collected through this questionnaire will be analysed by the SCAR Task Force and used to inform a report supporting the development of future European research and innovation strategies. The analysis will focus on identifying common patterns, enabling conditions, barriers and policy insights across Member States. Only aggregated and anonymised information will be included in the Task Force report and related outputs. Individual companies or initiatives will not be identified without prior consent. Please ensure that you are not breaching any commercial confidentiality in sharing the information provided here

Estimated completion time: **15–20 minutes**.

Member States / Countries are encouraged to submit **multiple examples where relevant** to reflect the diversity of innovation ecosystems across Europe.

1. Basic Information

*** Name of Company/Initiative:**

Short description of the company/initiative including the aim and end users

*** Member State/Country:**

*** Sector:**

(Select all that apply)

- ☐ Agriculture
- ☐ Forestry
- ☐ Food Systems
- ☐ Rural Areas
- ☐ Other (please specify)

*** Type of Company or Focus of Initiative:**

Maximum 1 selection(s)

- ☐ Startup - early stage company developing and testing a new business model
- ☐ Scaleup - company with demonstrated market traction and growing operations
- ☐ Open innovation within a large or multinational company
- ☐ Corporate venturing
- ☐ Other (please specify)

*** Current Stage:**

Maximum 1 selection(s)

- ☐ Early-Stage

- ☐ Prototype
- ☐ Pilot
- ☐ Growth
- ☐ Mature
- ☐ Exit
- ☐ Failed
- ☐ Other (please specify)

*** Which part of the value chain does the Business/Initiative target?:**

(Select all that apply)

- ☐ Primary Production
- ☐ Logistics/Distribution
- ☐ Product Development
- ☐ Processing/Manufacturing
- ☐ Trade/Retail
- ☐ Services
- ☐ Waste Management/Recycling
- ☐ Other (please specify)

*** What type of innovation does the Business/Initiative represent?**

Maximum 1 selection(s)

- ☐ Technological
- ☐ Social
- ☐ Organisational
- ☐ Structural/Systemic
- ☐ Other (please specify)

2. Origin of the Innovation

*** Source of Innovation:**

(Select all that apply)

- ☐ EU-Funded R&I Project
- ☐ National or Regional R&I Programme
- ☐ University or Research Institute
- ☐ Private R&D
- ☐ Farmer/Practitioner Innovation
- ☐ Other (please specify)

*** Basic Description of the Innovation:**

*** Main Problem Addressed/Value Proposition:**

3. Stages of Innovation Journey (Research or Market)

INNOVATION DEVELOPMENT TIMELINE

Year of Proof-of-Concept:

Prototype or Pilot Developed (Year):

Demonstration Phase (Year):

Market Entry (Year):

Scaling Phase:

(If applicable)

Technology Readiness Level Progression (TRL):

(If known)

PROCESS OF THE INNOVATION JOURNEY

*** What was the main driver of the innovation (process)?**

Maximum 1 selection(s)

- ☐ Technology Push (Triggered by new technologies or research results)
- ☐ Market Pull (Triggered by market demand or user needs)
- ☐ Combination of Both
- ☐ Other (please specify)

*** Who led the innovation process?**

Maximum 1 selection(s)

- ☐ Research Organisation
- ☐ Startup/SME
- ☐ Industry Partner
- ☐ Multi-Actor Partnership
- ☐ Other (please specify)

*** How would you describe the innovation process?**

Maximum 1 selection(s)

- ☐ Co-Creation Process (Joint development with multiple stakeholders)
- ☐ Open Innovation Process (Involvement of external partners)
- ☐ Mainly Developed Internally Within One Organisation
- ☐ Other (please specify)

*** Which stakeholders were involved in the innovation process?**

4. Funding and Support Pathway

FUNDING RECEIVED

Public Funding: e.g. EU Programmes, National Funding, Regional Funding, Public-Private Partnerships

(Please Specify)

Private Funding: e.g. Venture Capital, Corporate Investment, Angel Investors etc

(Please Specify)

SUPPORT RECEIVED

Non-Financial Support: e.g. Incubators, Accelerators, Living Labs, Demonstration Farms, Regulatory Sandboxes, Advisory Support, European Innovation Hubs Network, Test and Experiment Facility, Research Centre etc

(Please Specify)

5. Enabling Factors

* What worked well?

(Select all that apply)

- ☐ Access to Funding
- ☐ Strong Research Support
- ☐ Entrepreneurial Team
- ☐ Market Demand
- ☐ Support Infrastructure
- ☐ Partnerships
- ☐ Public Procurement
- ☐ Demonstration Farms
- ☐ Regulatory Support
- ☐ Stakeholder Involvement
- ☐ Access to Pilot and Demonstration Infrastructure
- ☐ Other (please specify)

6. Barriers and Bottlenecks

* What could be improved?

(Select all that apply)

- ☐ Fragmented Markets
- ☐ Lack of Scale-Up Financing
- ☐ Insufficient Infrastructure
- ☐ Lack of Standards
- ☐ Difficult Market Access
- ☐ Lack of Networks
- ☐ Lack of Visibility
- ☐ Information Gaps
- ☐ Skills Gaps
- ☐ Administrative Burden
- ☐ Investor Risk
- ☐ Access to Skilled Workforce
- ☐ Regulatory Barriers or Complex Regulatory Frameworks
- ☐ Other (please specify)

*** Describe the challenges and at what stage(s) progress was hindered for the Company/Initiative?**

7. Investment and Infrastructure Needs

Was adequate Infrastructure available?

Maximum 1 selection(s)

- ☐ Yes
- ☐ Partially
- ☐ No

Were large scale investments required?

Maximum 1 selection(s)

- ☐ Yes
- ☐ Partially
- ☐ No

8. Synergies Across Instruments

*** Did the innovation benefit from coordinated support between EU, National or Regional Instruments?**

Maximum 1 selection(s)

- ☐ Yes
- ☐ No

9. Current or Forecasted Impact

Current or Forecasted Impact of the Company/Initiative:

(Select all that apply)

- ☐ Market Presence (Regional, National EU, Global)
- ☐ Jobs Created
- ☐ New Products, Processes or Services Developed
- ☐ Economic Impact
- ☐ Environmental Impact
- ☐ Societal Impact

10. Key Lessons Learned

* What enabled success?

* What factors most accelerated the innovation journey?

* What would have accelerated progress even quicker?

* What went wrong or could be improved?

11. Policy Implications

* What policy measures at EU or Member State level could improve the translation of research and innovation into Startups, Scaleups or Innovative SMEs?

12. Contact For This Submission

* Name:

(First and Last Name)

* Organisation:

* Email:

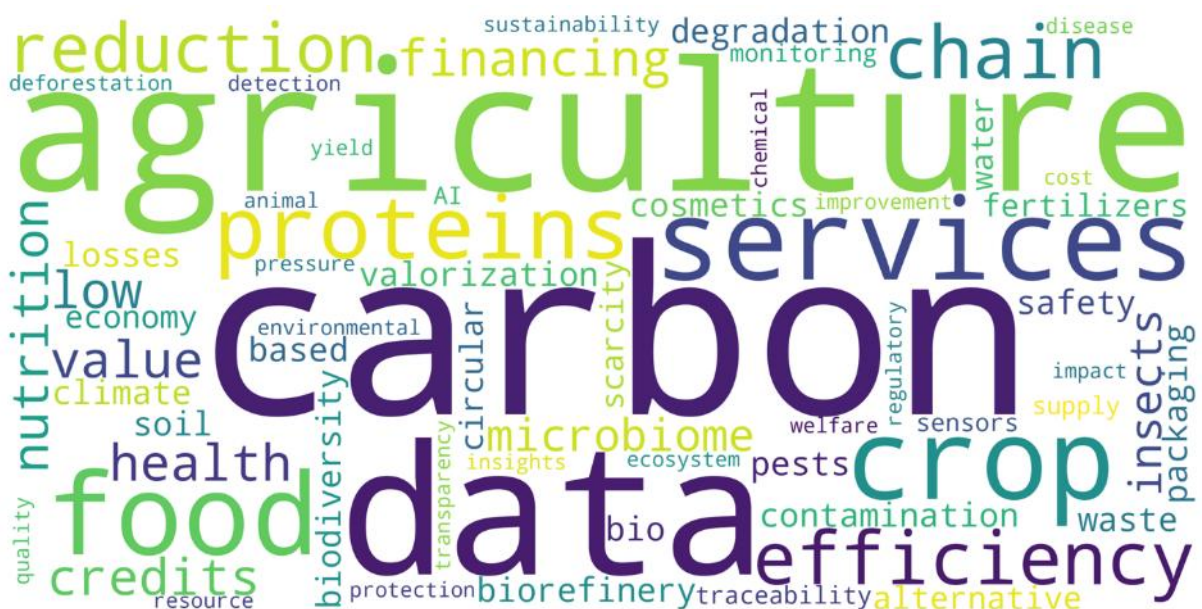
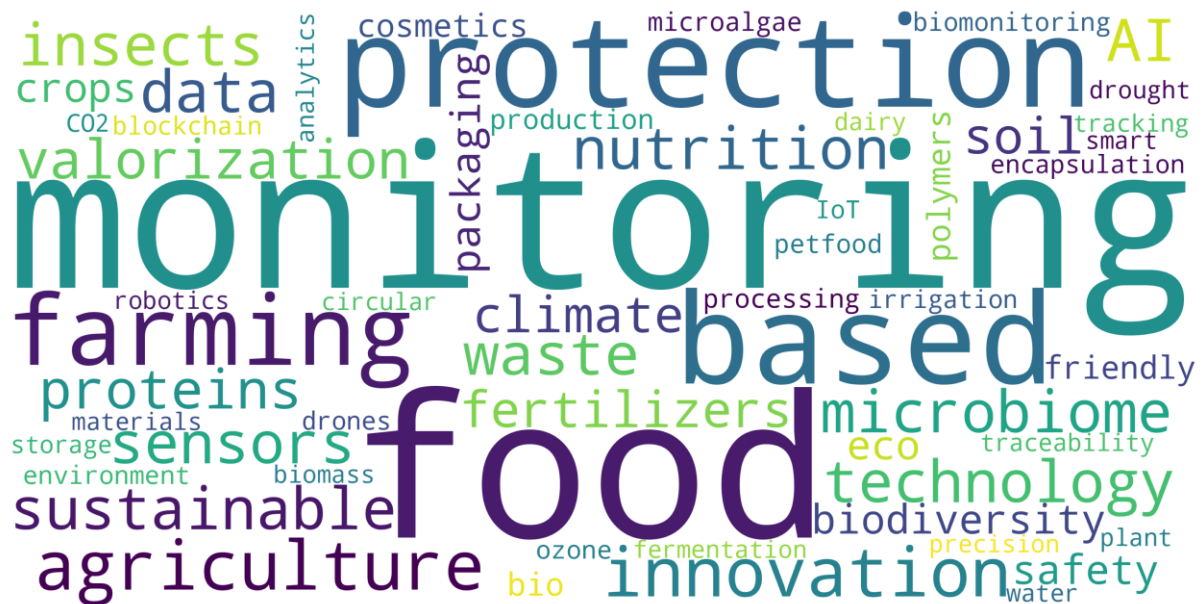
Supported by the RefreSCAR project which is funded by the European Union

RefreSCAR



European Union





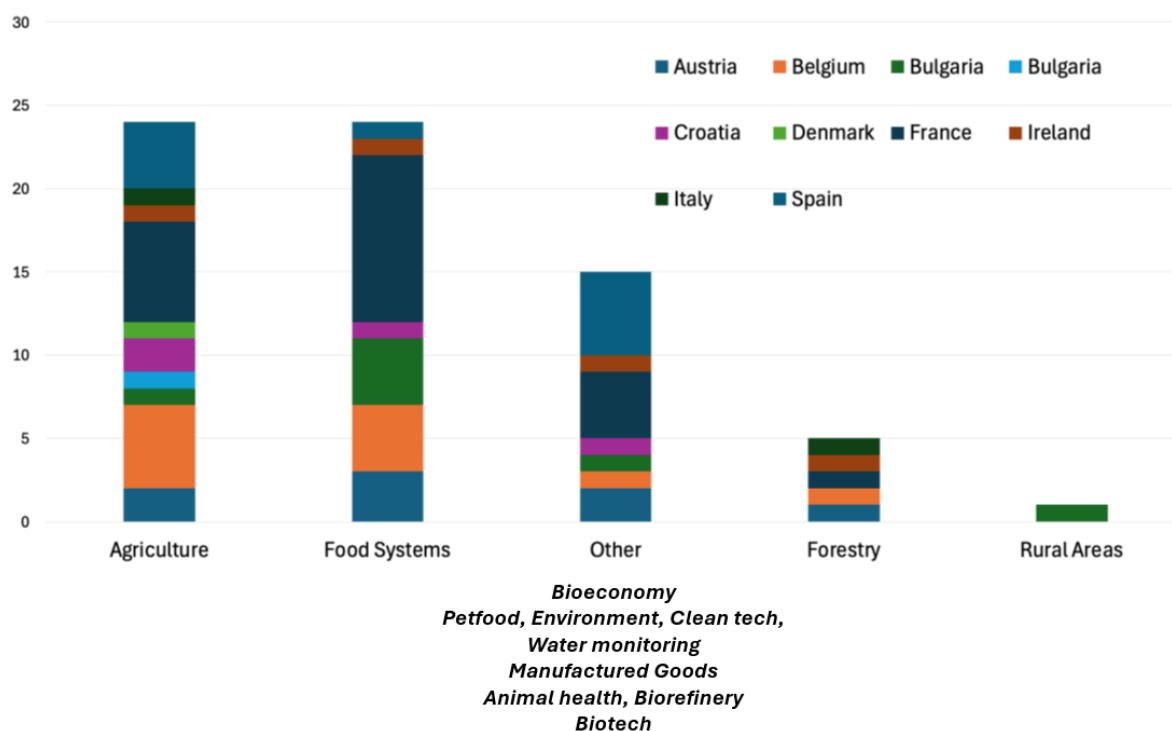


Figure 3: Agriculture and food systems related sector distribution in relation to the country of the survey respondents (total is higher than 49 because of multiple choice response possibility)

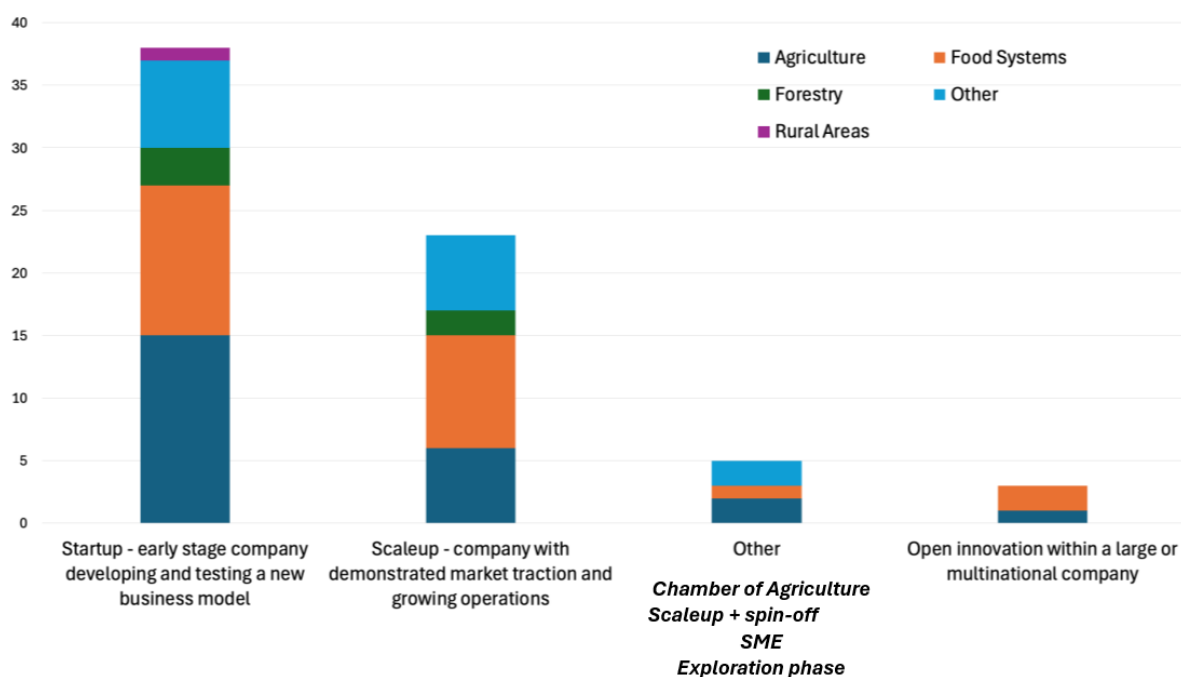


Figure 4: Company type in relation to the sector addressed

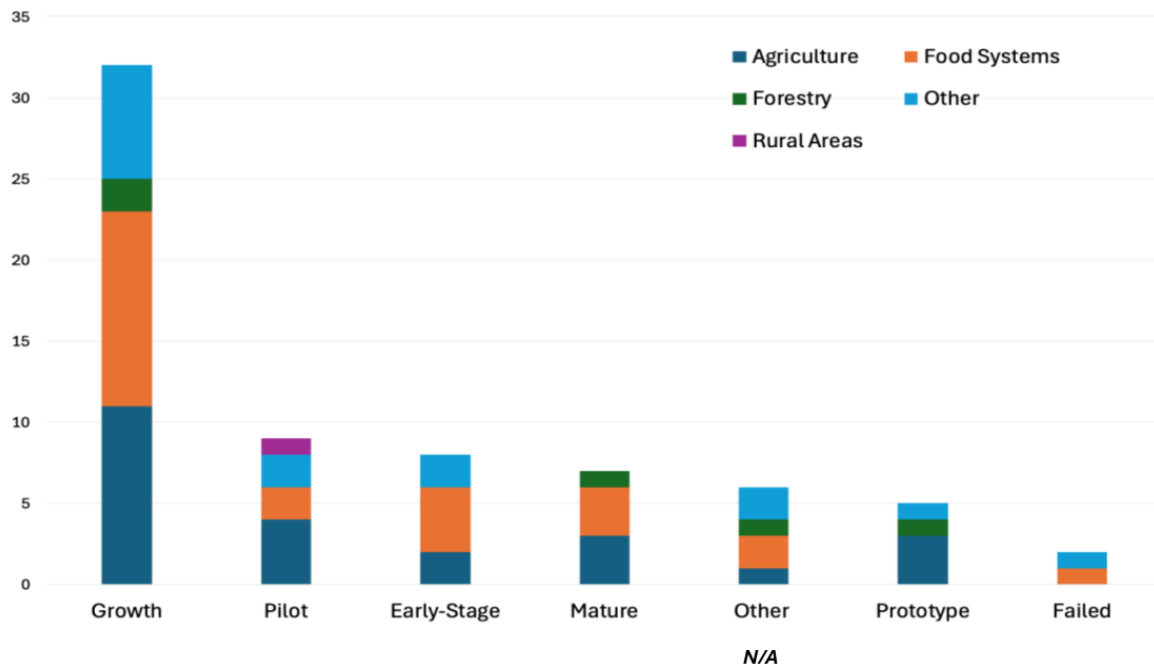


Figure 5: Company current stage in relation to the sector addressed

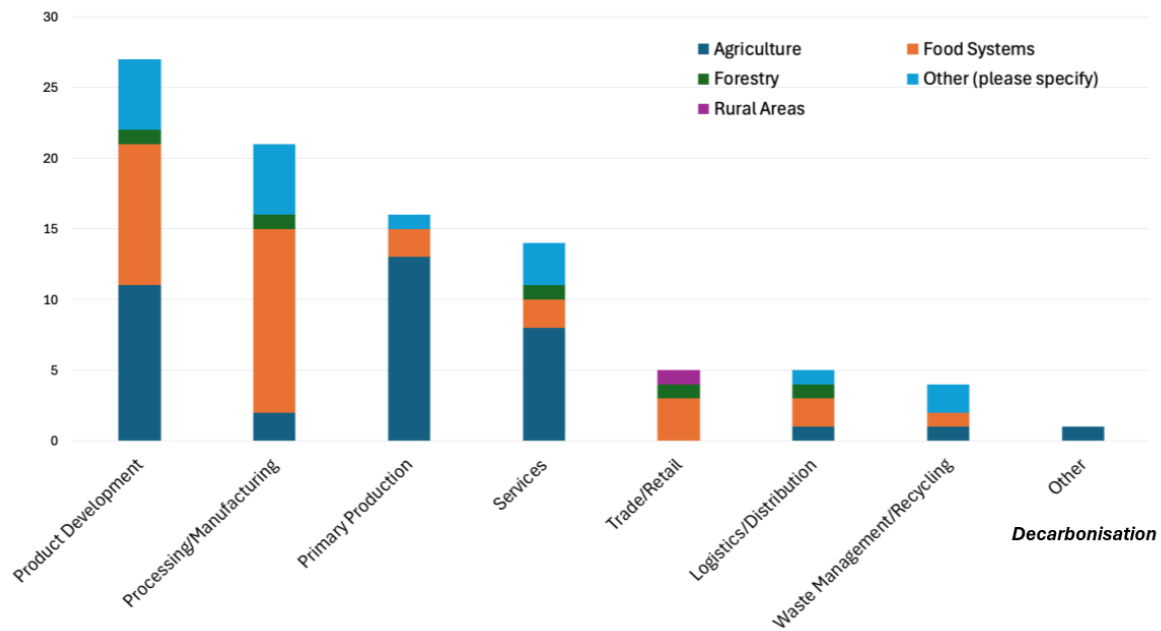


Figure 6: Company value chain in relation to the sector addressed

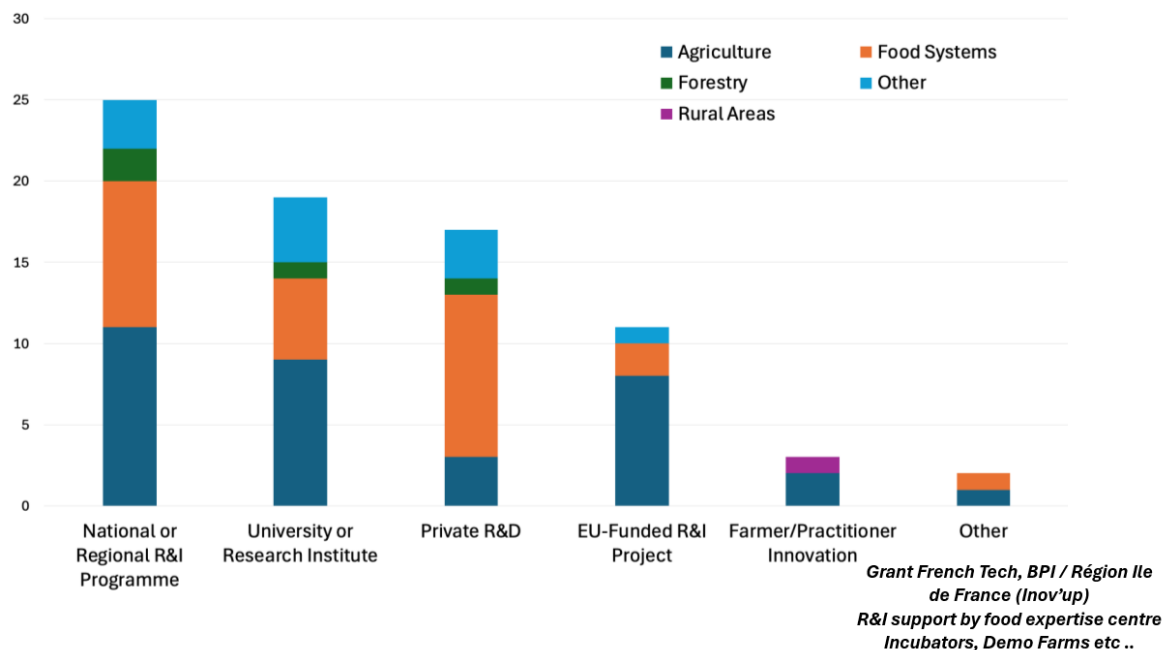


Figure 7: Source of innovation in relation to the sector addressed (total is higher than 49 because of multiple choice response possibility)

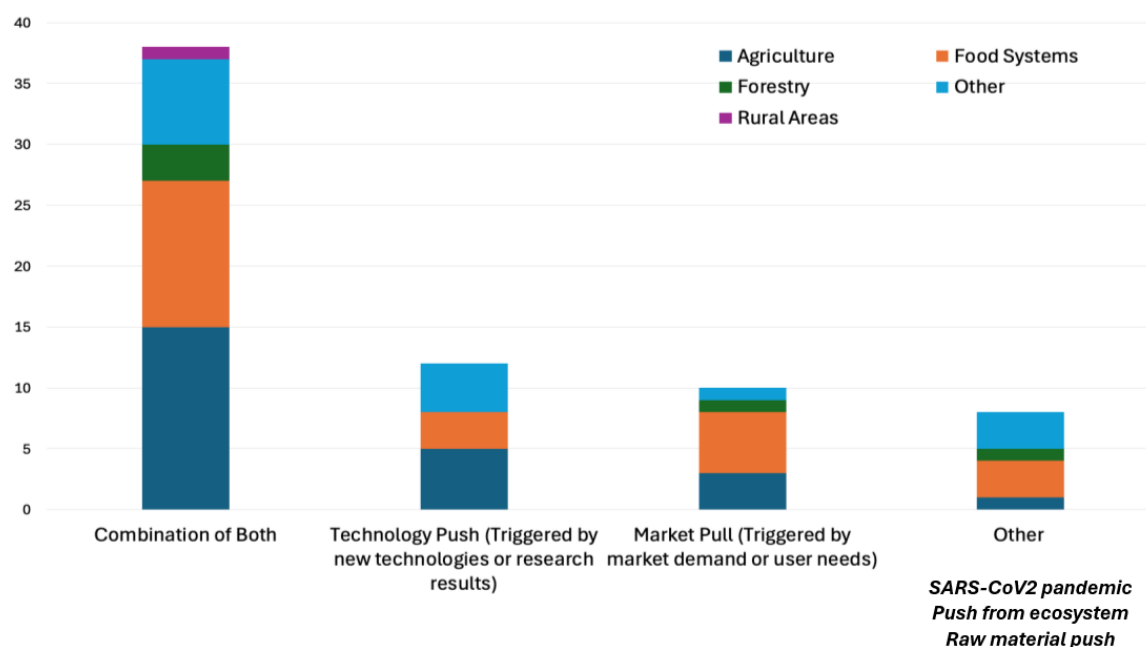


Figure 8: Main drivers of innovation in relation to the sector addressed

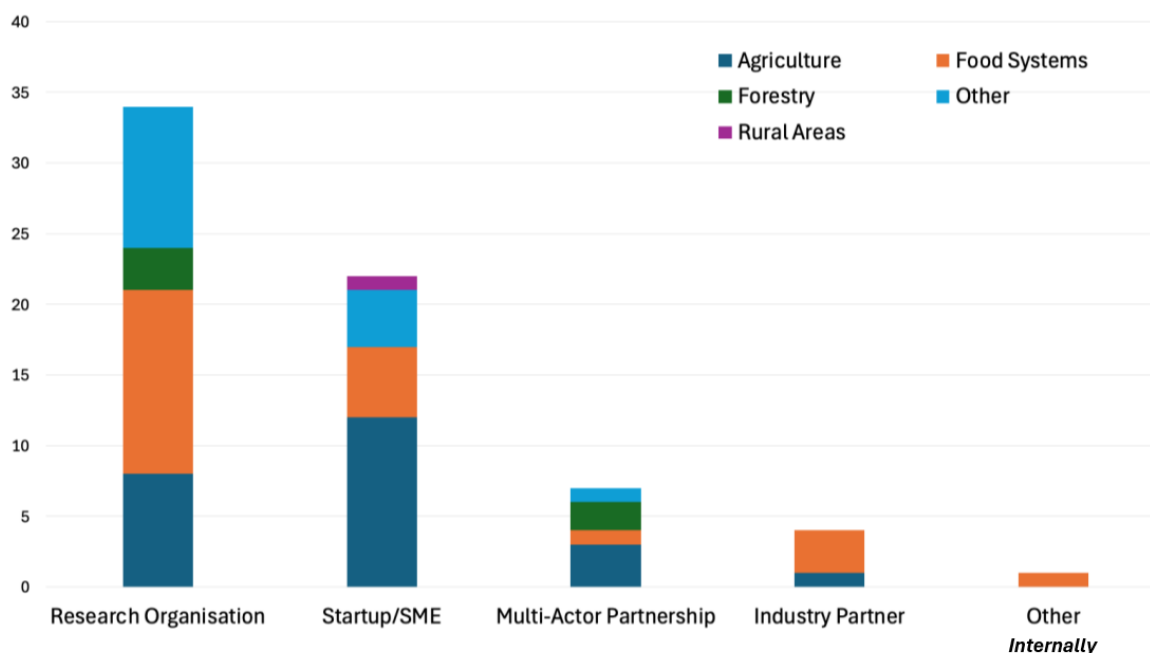


Figure 9: Lead of innovation in relation to the sector addressed

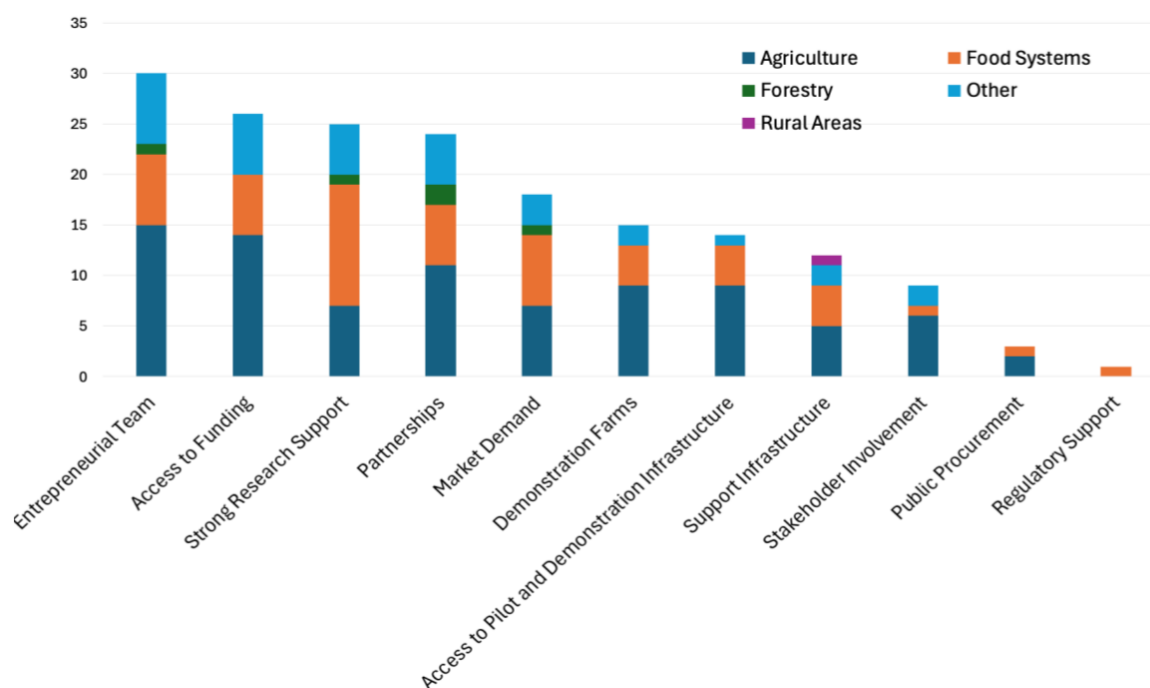


Figure 10: Condition of success (what worked well?) in relation to the sector addressed (total is higher than 49 because of multiple choice response possibility)

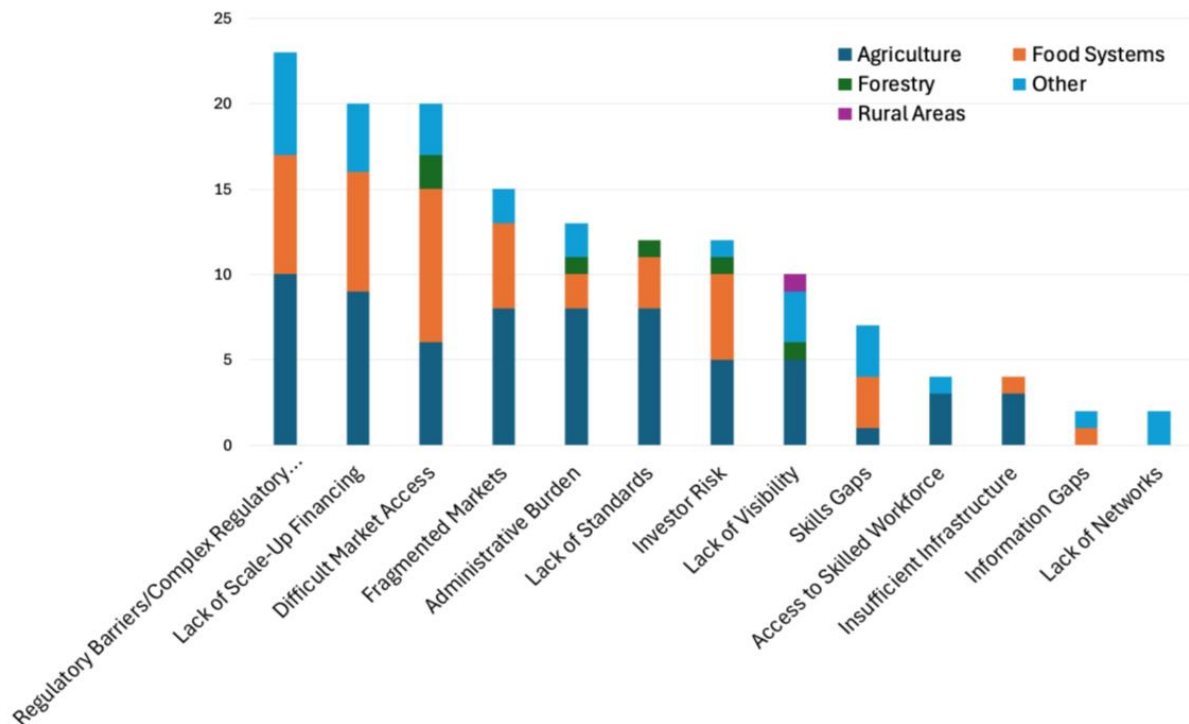


Figure 11: Domains of improvement (what could be improved?) in relation to the sector addressed (total is higher than 49 because of multiple choice response possibility)

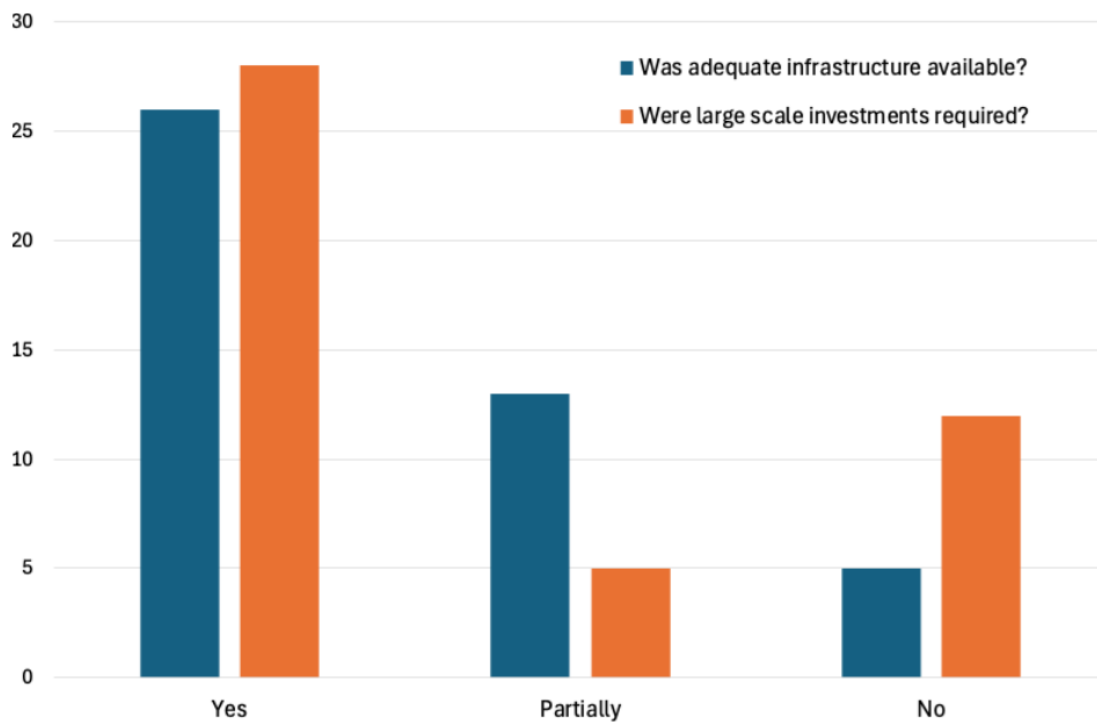


Figure 12: Needs for infrastructure and investments access

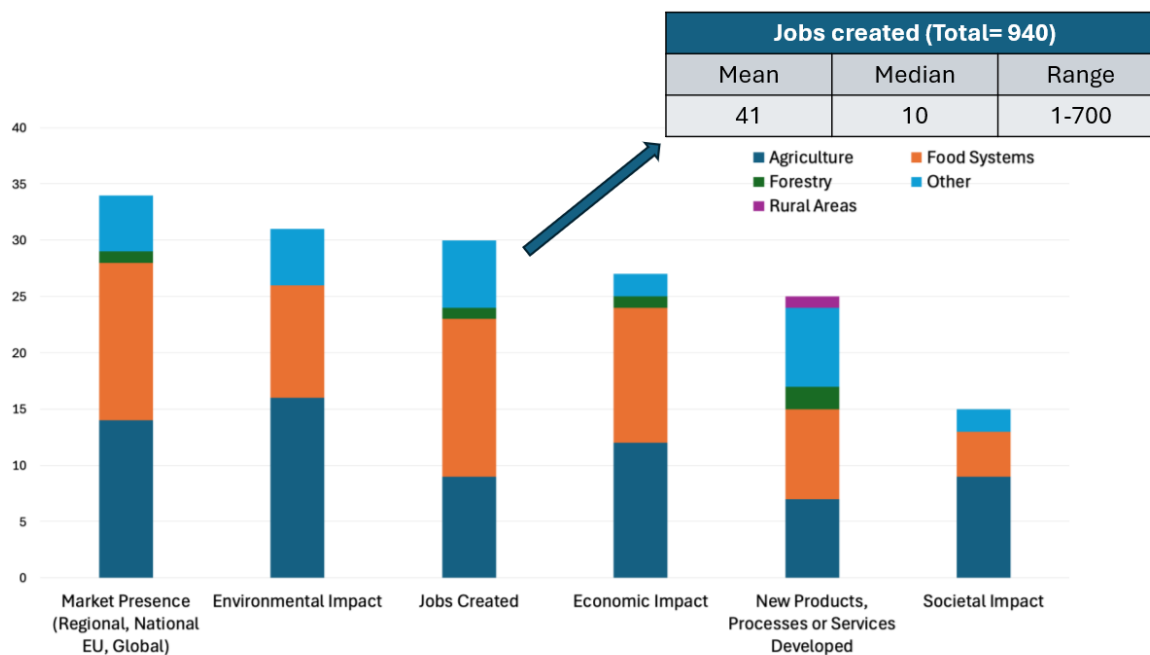


Figure 13: Current or forecasted impact of the company/initiative (number of items selected) in relation to the sector addressed (total is higher than 49 because of multiple choice response possibility)

Annex 3: List of Task Force Members and Contributors

Country	Name	Organisation	Role
Ireland	Siobhán Jordan	Teagasc – Agriculture and Food Development Authority	Co-Chair
Belgium	Jürgen Vangeyte	Flanders Research Institute for Agriculture, Fisheries and Food (ILVO)	Co-Chair
Austria	Laura Hundscheid	Federal Ministry of Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management	Member
Belgium	Els Berckmoes	Proefstation voor de Groenteteelt VZW	Member
Belgium	Tom Viaene	VIB/Ugent	Member
Belgium	Wouter Merckx	KU Leuven	Member
Bulgaria	Rada Dinkova	University of Food Technology in Plovdiv	Member
Croatia	Mario Njavro	University of Zagreb	Member
Denmark	Lene Lange	LL-Bioeconomy, Research & Advisory	Member
Estonia	Terje Kaelep	Ministry of Regional Affairs and Agriculture	Member
Finland	Juuso Kalliokoski	Ministry of Agriculture and Forestry	Member
Finland	Timo Halonen	Ministry of Agriculture and Forestry	Member
France	Gilles Feron	INRAE	Member
France	Guillaume Chantre	ACTIA	Member
Germany	Wiebke Müller	Federal Ministry of Education and Research (BMBF)	Member
Germany	Rolf Stratmann	Forschungszentrum Jülich GmbH	Member
Germany	Richard Lange	Forschungszentrum Jülich GmbH	Member
Italy	Simona Cristiano	CREA-PB	Member
Latvia	Inese Skapste	Investment and Development Agency of Latvia	Member

Latvia	Inese Gribanova	Investment and Development Agency of Latvia	Member
Norway	Kristin Dawes	Research Council of Norway	Member
Portugal	José Matos	Instituto Nacional de Investigação Agrária e Veterinária, I.P. (INIAV)	Member
Portugal	Carlos Faro	Biocantpark	Member
Spain	Alicia Fayos	National Institute for Agricultural and Food Research and Technology (INIA-CSIC)	Member
	Fanny Le Gloux	European Commission DG AGRI	EC contact- point
	Daniela Biervert-Lüth	European Commission DG RTD	EC contact- point
	Pierre-Mathieu Pelissier	European Commission DG RTD	EC contact- point