



EUROPEAN CLUSTER  
COLLABORATION PLATFORM

## Cluster Collaboration Lab (C2LAB)

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Input paper

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## Introduction

**The primary purpose of this Input Paper is to provide a set of relevant information supporting the innovative efforts of the participants in the Cluster Collaboration Lab (C2Lab) that takes place in Vilnius (Lithuania) on 14-15 November 2023.** This C2Lab offers a valuable opportunity for attendees from cluster organisations, companies, research organisations, civil society, and other interested parties to discover potential partners for collaboration, advance project concepts, and create business cases for innovative solutions within the context of the Agri-Food Forum in Vilnius which is the largest forum on agri-food in the Baltic Region.

**The ideas for projects presented at this C2Lab shall strengthen the EU twin transition and boost the resilience of the European industry.** Thereby, the key focus is on the challenges for the agri-food ecosystem which has been under pressure due to several unprecedented factors in recent years, including COVID-19 and the subsequent supply chain disruptions caused by lockdowns, extreme weather anomalies, and the Russian invasion of Ukraine and its side effects, such as price spikes for energy and fertilizers.

In view of the above, **the central objective of this paper is to offer suitable assistance and practical guidance for the development and implementation of innovative projects fostering greener, more digital, and resilient economies, by focusing mainly on current funding schemes for innovation in the context of agri-food.** As the C2Lab is organised within the Agri-Food Forum in Vilnius, **Chapter 1** sheds light on the economic profile of Lithuania and the Baltic Sea Region, as well as the innovation ecosystems in the region, its relevant cluster actors, and strategic innovation priorities, with the aim to gain a better understanding of the economic context. **Chapter 2** focuses on identifying the main challenges of the agri-food ecosystem. Building upon that, **Chapters 3 and 4** focus on showing how to put the innovative project ideas into practice, thereby focusing explicitly on the topic of agri-food. **Chapter 3** guides the readers through several public - EU, intergovernmental and national - funding programmes, outlined together with a list of concrete calls for proposals, types of topics funded, partner search platforms, advisory services, and diverse support tools. **Chapter 4** investigates numerous sources of private funds such as venture capital, corporate venture capital, business angels, banks, and impact investors that aim to help develop research outputs into market-ready products.



**01**

**Context: Economic profile  
of Lithuania & Lithuanian  
innovation ecosystem**



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Strengthening the European economy through collaboration

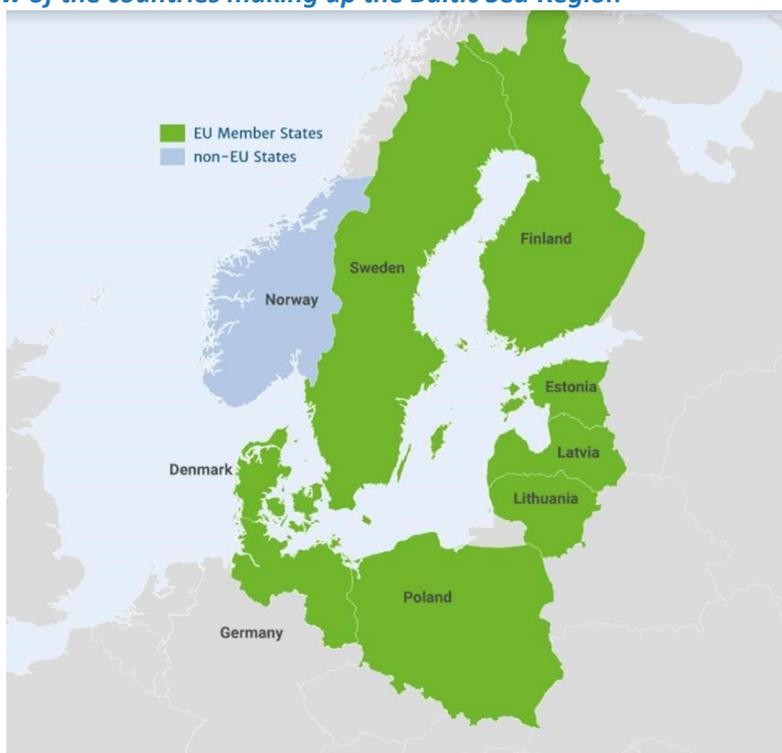


## 1. Context: Economic profile of Lithuania and the Baltic Sea Region

Lithuania, situated in Northern Europe, is a vibrant nation that forms an integral part of the Baltics. Bordered by Latvia, Poland, Belarus, and Russia, Lithuania boasts a population of approximately 2.9 million inhabitants as of 2023, making it one of the smaller countries within the European Union's 27 member states. Its western coastline along the Baltic Sea connects it to other countries within the Baltic Sea Region, therefore making it part of the EU Strategy for the Baltic Sea Region<sup>1</sup>, which constitutes approximately a quarter (24.7%) of the EU27 population and can be regarded as an important economic hub in Northern and Eastern Europe.<sup>2</sup> Apart from Lithuania, the Baltic Sea Region includes seven other European Union member states, each contributing to the region's diverse and dynamic economic landscape (See Figure 1).<sup>3</sup> The Member States making up this region are:

- Denmark
- Latvia
- Sweden
- Estonia
- Lithuania
- Germany (Northern Part of the Country)
- Finland
- Poland

**Figure 1: Overview of the countries making up the Baltic Sea Region**



Source: <https://eufonder.se/interreg/interreg-baltic-sea-region.html>

<sup>1</sup> [https://ec.europa.eu/regional\\_policy/policy/cooperation/macro-regional-strategies/baltic-sea\\_en](https://ec.europa.eu/regional_policy/policy/cooperation/macro-regional-strategies/baltic-sea_en) (last access 17.10.2023)

<sup>2</sup> Eurostat (2023): Population on 1 January: Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Sweden, Poland. Available under <https://ec.europa.eu/eurostat/databrowser/view/tps00001/default/table?lang=en> (last access 13.10.2023).

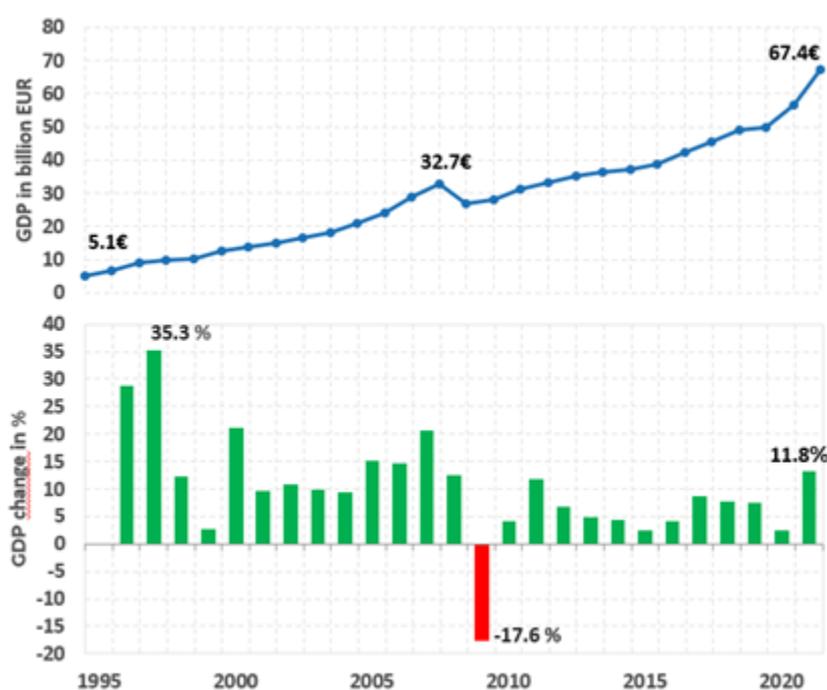
<sup>3</sup> Parts of Norway are also covered by the Baltic Sea Region but will not be in the focus of this paper.



## Macroeconomic profile of Lithuania and the Baltic Sea Region

Lithuania, though characterized by a relatively modest population, has consistently demonstrated robust economic performance over the past two decades, culminating in a recent Gross Domestic Product (GDP) of 67.4 billion €<sup>4</sup>. This can be translated into a GDP per capita of 29.000 € (PPS)<sup>5</sup>, which lies below the EU27 average of 32.400€. Nevertheless, the country remains the strongest economy in the Baltics. As shown in Figure 2, Lithuania's economic trajectory exhibits remarkable resilience and dynamism.

**Figure 2: GDP at market prices in billion \$ and GDP change in % over time in Lithuania**



Source: Eurostat (2023), GDP and main components (output, expenditure, and income). Available under: [https://ec.europa.eu/eurostat/databrowser/view/nama\\_10\\_gdp/default/table?lang=en%20](https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp/default/table?lang=en%20) (last access: 13.10.2023).

Despite experiencing a brief recession in 2009, attributed to the global economic downturn following the 2008 financial crisis, Lithuania swiftly rebounded to pre-crisis levels in 2012 and continued its **strong growth** from there onwards. The growth even continued during the COVID-19 pandemic with Lithuania reaching an GDP of 67.4 billion EUR in 2022. From 1995-2022, the average year economic growth was around 10.4% which places Lithuania as one of the fastest growing economies worldwide.

<sup>4</sup> Eurostat (2023): GDP and main components (output, expenditure and income): Lithuania. Available under [https://ec.europa.eu/eurostat/databrowser/view/nama\\_10\\_gdp/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp/default/table?lang=en) (last access 13.10.2023).

<sup>5</sup> Eurostat (2023): Gross domestic product (GDP) at current market prices by NUTS2 regions. Available under [https://ec.europa.eu/eurostat/databrowser/view/NAMA\\_10R\\_2GDP\\_custom\\_7751336/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/NAMA_10R_2GDP_custom_7751336/default/table?lang=en) (last access 13.10.2023).



Notably, Lithuania's sustained economic growth reflects its adaptability and resilience in the face of complex global circumstances. The annual GDP growth percentage consistently outpaces the EU average, with a notable contribution from Small and Medium-sized Enterprises (SMEs), particularly in the realm of service-oriented industries. The prominence of businesses dedicated to Information and Communication Technology (ICT) and digitalization further underscores Lithuania's pivotal role in the European economic landscape.

Shifting the focus to the broader Baltic Sea Region, it's worth noting that the combined GDP of this area carries significant weight, exceeding a remarkable €5.9 trillion in the year 2022, constituting 37.1% of the EU27 GDP.<sup>6</sup> Over recent decades, the **Baltic Sea Region** has stood out as a shining example of robust economic growth. Furthermore, the strategic location of the region provides easy access to global markets, making it a hub for trade, as reflected by its trade capacity. As of the latest available data in 2022, Lithuania reported imports of goods and services amounting to €52.5 billion, and exports of goods and services reaching €44.3 billion.<sup>7</sup> Lithuania's integration into the single market is evident, with 62.2% of its exports being intra-EU, and 63.3% of Lithuania's imports being intra-EU, indicating **strong economic ties within the European Union Single Market**. Given the strong economic ties with Russia and Ukraine, the Lithuanian economy has been affected by the **Russian war against Ukraine**, and will even be even more increasingly reliant on trade with the EU27 trade as well as other trading partners. Nevertheless, the region also faces challenges, including an ageing population, increasing global competition as well as the emergence of disruptive technologies.<sup>8</sup> This latter, however, also presents an opportunity for the region to leverage its strengths, such as its proximity to renewable energy sources and the potential of new industrialisation.

To obtain a more comprehensive grasp of Lithuania's and the Baltic Sea Region's economic landscape, it is valuable to examine their positions within the **14 industrial ecosystems**, as defined by the European Commission<sup>9</sup>, in terms of both employment and Gross Value Added (GVA) (See Figure 3). In terms of employment, the Construction ecosystem claims the largest share, indicating a more substantial role in Lithuania's economy compared to the EU27 and the Danube region. This suggests a specialisation in construction-related sectors within the EU and the microregion, with a share slightly below the EU27 average and a comparable level to the Baltic Sea Region. A similar picture is drawn when looking at the largest ecosystems based on GVA, with Retail and Construction constituting the second-largest industrial ecosystems. Retail contributes to 20% of the GVA across all ecosystems, surpassing the averages for both the EU27 and the Baltic Sea Region. Construction makes up approximately 16%, slightly exceeding both averages. On the other hand, the ecosystems Health and

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<sup>6</sup> Eurostat (2023): GDP and main components (output, expenditure and income): Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden. Available under [https://ec.europa.eu/eurostat/databrowser/view/nama\\_10\\_gdp/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp/default/table?lang=en); Please note that this includes the whole of Germany.

<sup>7</sup> Eurostat (2023): Intra and Extra-EU trade by Member State and by product group. Available under: [https://ec.europa.eu/eurostat/databrowser/view/EXT\\_LT\\_INTRATRD/default/table?lang=en&category=ext\\_go\\_ext\\_go\\_agg](https://ec.europa.eu/eurostat/databrowser/view/EXT_LT_INTRATRD/default/table?lang=en&category=ext_go_ext_go_agg)

<sup>8</sup> Baltic Development Forum (2018). The Baltic Sea Region economies: Progress and Priorities. Available under [http://www.bdforum.org/wp-content/uploads/2018/04/TBSREReport2018\\_210x297\\_webfinal.pdf](http://www.bdforum.org/wp-content/uploads/2018/04/TBSREReport2018_210x297_webfinal.pdf) (last access 13.10.2023).

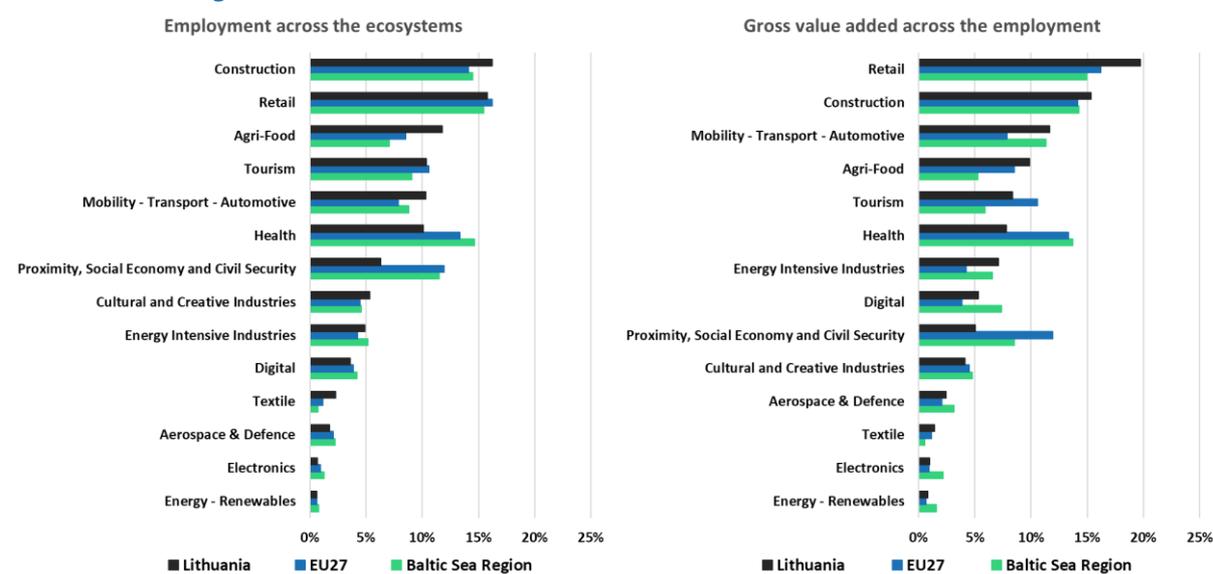
<sup>9</sup> See European Commission (2021): Annual Single Market Report, SWD (2021). Available under [https://commission.europa.eu/system/files/2021-05/swd-annual-single-market-report-2021\\_en.pdf](https://commission.europa.eu/system/files/2021-05/swd-annual-single-market-report-2021_en.pdf) (last access 13.10.2023).



Proximity, Social Economy and Civil Security exhibit a much smaller share across the ecosystems in both employment and GVA.

Moreover, the statistics on employment and GVA across the industrial ecosystems underscore the **strength of Agri-food for the Lithuanian economy**. The employment in the Agri-food ecosystem makes up 12% of employment, thus surpassing the average levels of the EU27 (9%) as well as the Baltic Sea Region (7%). This makes the Agri-Food ecosystem the third largest in employment, while based on GVA, this ecosystem is ranked fourth following Mobility-Transport-Automotive, contributing to roughly 10% of GVA across the ecosystems. The higher employment in this ecosystem can be attributed to its significant presence in the Central and Western Regions (LT02), one of the Lithuanian NUTS2 regions, comprising 16.3% across all ecosystems and thus emerging as the largest ecosystem in the region, while it only comprises of 4.4% in the Capital Region (LT01). The data also points towards a specialisation node for this ecosystem within the region. Connections can be drawn to sectors, such as Crop and animal production, hunting and related service activities, Forestry and logging as well as Manufacture of food products of wood and cork, except furniture, all of which display sectoral specialisation nodes. Even though not exhibiting an ecosystem specialisation node, the Capital Region has specialisation in the manufacture of wood and of products of wood and cork, except furniture, which pertains to the Agri-Food ecosystem.

**Figure 3: Employment and gross value added at basic prices per industrial ecosystem in Lithuania, the Baltic Sea Region & the EU27 in 2020**



Source: ECCP (2023), own elaboration based on Eurostat.

Drawing on the European Cluster Panorama 2021, visual representations of industrial ecosystem specialisations in various regions are provided, as seen in Figure 11 in the Annex.<sup>10</sup> The two regions of Lithuania fall into two specialisation groups, consistent with the sector and ecosystem specialisations.

<sup>10</sup> ECCP (2021): European Cluster Panorama Report 2021. Available under: [https://clustercollaboration.eu/sites/default/files/2021-12/European\\_Cluster\\_Panorama\\_Report\\_0.pdf](https://clustercollaboration.eu/sites/default/files/2021-12/European_Cluster_Panorama_Report_0.pdf) (last accessed 13.10.2023).



The capital Region is classified as **Creative digital/Capitals**, accentuating its unique strengths in the creative digital industries, with specialisations in Cultural and Creative Industries and Digital. Conversely, the less densely populated region of Central and Western Lithuania, encompassing the capital region, is categorized as **Agri-textile**, indicating specialisations in the Agri-food and Textile ecosystems.

Particularly in the realms of growing industries, Lithuania can build on these highly relevant and forward-thinking foundations and foster more innovativeness, for example in its technologies. Furthermore, these findings generally align with Lithuania's long-term aspirations to integrate further within EU networks as seen in projects like the S3 Strategy 2021-2027, with "Health technologies, biotechnologies and safe food", which encompasses Safe food and sustainable agrobiological resources and "ICT technologies, inclusive and creative society" as stand-out priority areas (see also further below).

## Innovation performance of Lithuania & the Baltic Sea Region

With regards to **Lithuania's innovation performance**, the country is classified as a **'Moderate Innovator'** based on its summary index score of 83.8%, which places it slightly below the European average according to the 2023 European Innovation Scoreboard (See Figure 4). Within the group of 'Moderate Innovator' with a score of 83.8%. Nevertheless, the performance has been steadily improving, with a notable increase of 16.7 percentage points since 2016, meaning it is increasing at a higher rate than that of the EU, making the country's innovation performance gap to the EU is becoming smaller.

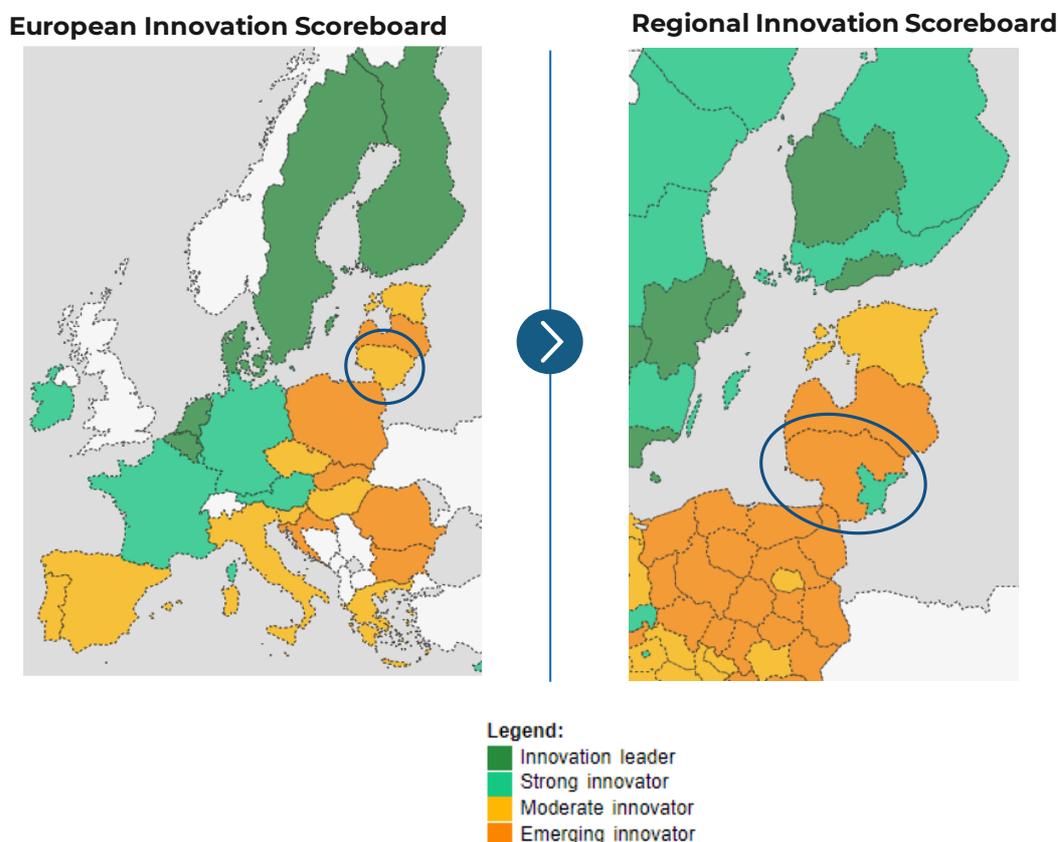
At the national level, Lithuania surpasses the EU average in various key areas, such as Innovative SMEs collaborating with others and product and business process innovation. Moreover, Lithuania boasts a significant population with tertiary education, a statistic that is double the EU27 average. This high level of educational attainment signifies a strong foundation for further enhancing innovation and fostering a knowledge-driven economy. However, some areas require further development. R&D expenditures in both the public and business sectors have fallen below the EU27 average, with the business sector's performance decreasing notably since 2016. This trend highlights the need for increased investment in research and development to boost innovation capacity.

The economic differences across the two regions are also discernible when looking at the innovation performance, with the Capital Region having a summary innovation index slightly above the EU27 average, thus being classified as a Strong Innovator -. Particularly in areas like "Innovative SMEs collaborating" and "Innovation expenditures per person employed", this region in Lithuania places an emphasis on innovation-oriented practices across businesses. On a further note, the high scoring of "Employed ICT specialists" and "above average digital skills", showcases how the education and expertise in ICTs is well-established in this region. In contrast, the Central and Western Lithuania regions perform at around 70% of the EU27 average, classifying them as 'Moderate Innovators -' (See Figure 4). However, they also perform above the EU average in "Tertiary Education" and "Above average digital skills", which could point to the widespread opportunities in learning opportunities.



Furthermore, "Non-R&D Innovation expenditures" exhibit robust performance, indicating consistent financial support for innovative activities.

**Figure 4: Lithuania in the European and Regional Innovation Scoreboard 2023**



Source: European Innovation Scoreboard 2023. Available online: <https://ec.europa.eu/research-and-innovation/en/statistics/performance-indicators/european-innovation-scoreboard/eis> (last access 22.09.2023).

The **Danube region's innovation performance** demonstrates diversity. Denmark, Finland, and Sweden are labelled as 'Innovation Leaders,' while Germany is classified as a 'Strong Innovator.' Lithuania and Latvia fall into the 'Moderate Innovators' category, and Poland and Latvia are recognized as 'Emerging Innovators.' These classifications provide insights into the varying degrees of innovation strength across the region, highlighting the unique innovation profiles of each country.

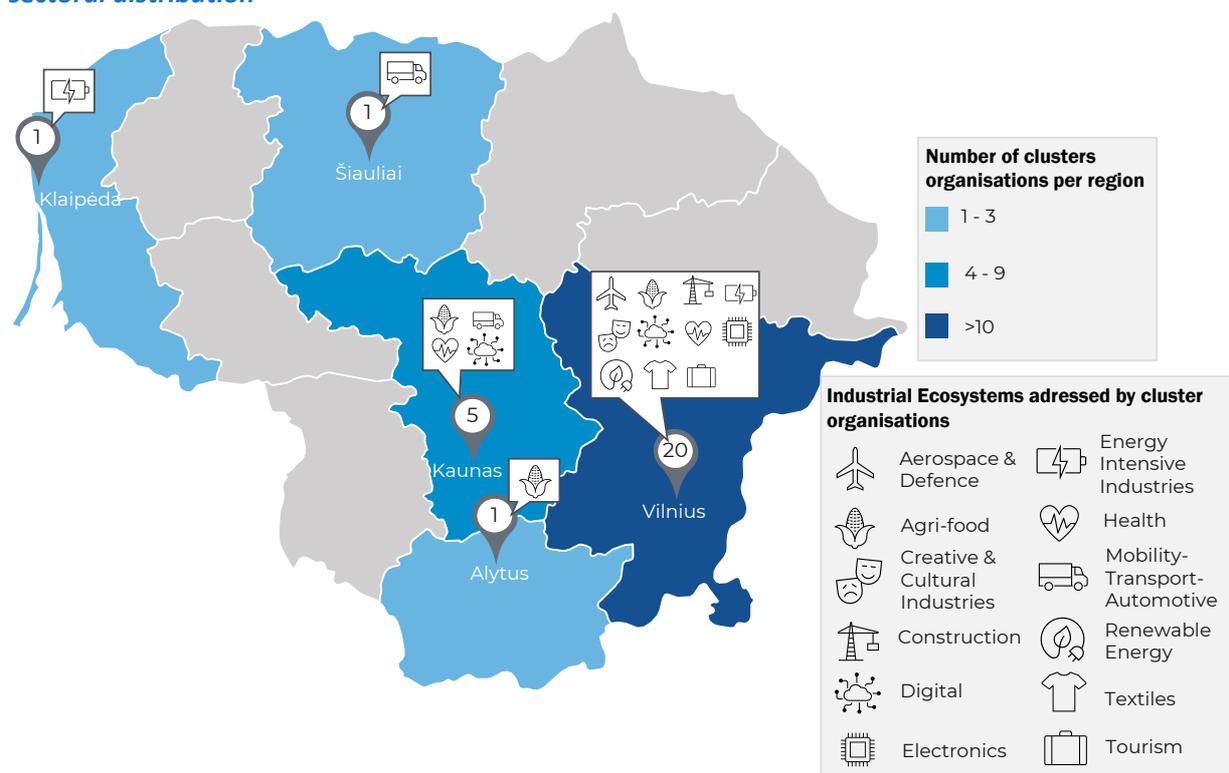


## Lithuania’s innovation landscape & agri-food cluster actors

This section provides a brief outline of actors in the Lithuanian innovation landscape and especially cluster actors related to the topics of agri-food. Cluster organisations as intermediaries play a central role in innovation ecosystems. To start, the number of registered cluster organisations and other innovation actors in Lithuania on the European Cluster Collaboration Platform (ECCP) gives a first impression on the cluster landscape in the region. Out of the current total of 1,142 registered EU27 cluster organisations on the ECCP, there are **28 cluster organisations** from Lithuania.

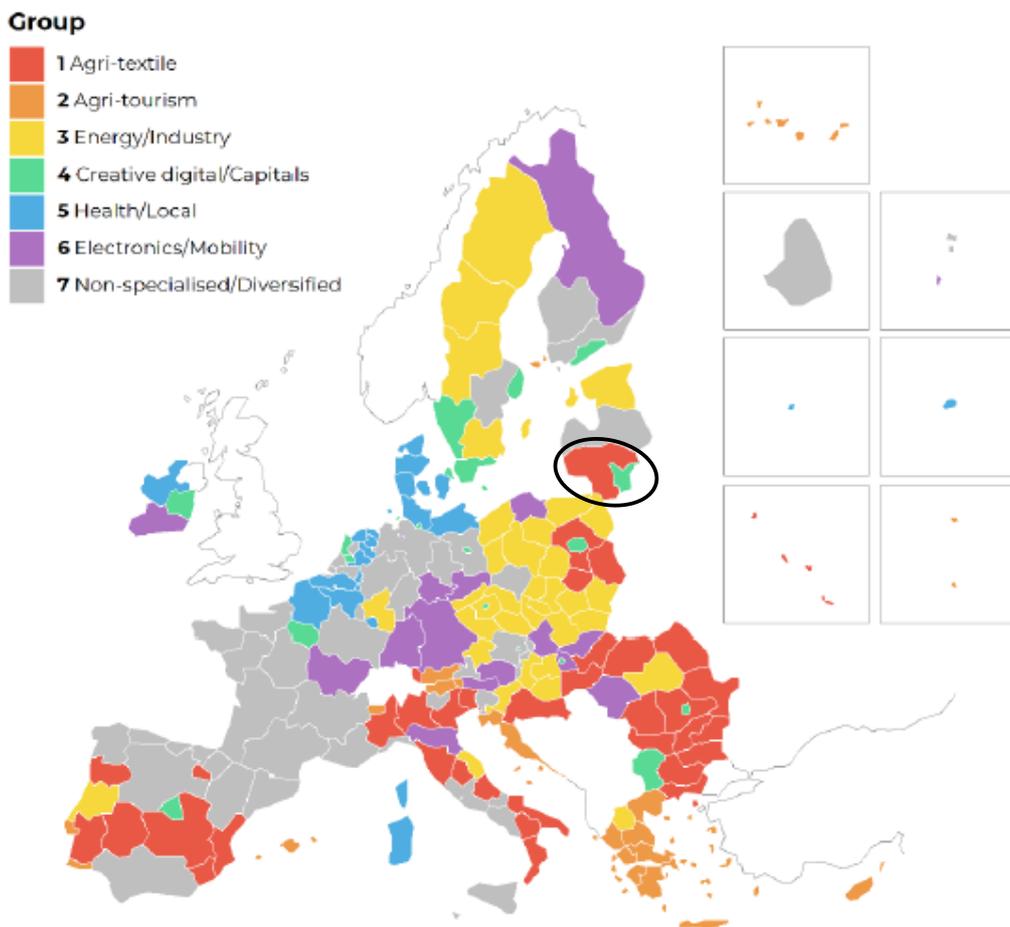
Figure 5 displays the geographical distributions of the Lithuanian cluster organisations as well as their correspondence to the EU Industrial Ecosystems<sup>11</sup>. The majority of the cluster organisations (20 cluster organisations) are centred around the Lithuanian capital of Vilnius. Five of the 28 cluster organisations registered on the ECCP are concentrated near Kaunas. The three remaining cluster organisations are situated in Alytus, Šiauliai and Klaipėda.

**Figure 5: Overview of Lithuanian cluster organisations registered on the ECCP, by their regional and sectoral distribution**



Source: ECCP (2023), own elaboration based on <https://reporting.clustercollaboration.eu/all> (last access 11.09.2023). A full overview of the Lithuanian ECCP clusters is provided in Figure 11: Regional typology based on industrial ecosystem specialisations

<sup>11</sup> see also <https://clustercollaboration.eu/in-focus/industrial-ecosystems> (last access 13.09.2023).



Source: European Cluster Panorama Report (2021).

Table 1 in the Annex.

Moreover, these Swedish cluster organisations can be linked to 12 out of the 14 EU Industrial Ecosystems. No Lithuanian cluster organisation on the ECCP is operating in the Industrial Ecosystems “Retail” and “Proximity, Social Economy & Civil Security”. Four Lithuanian cluster organisations with profiles on the ECCP show direct links to the EU Industrial Ecosystem “**Agri-food**”. These cluster organisations are:

- [AgriFood Lithuania DIH](#)
- [Food Technologies Digitalization LT](#)
- [National Food Cluster Lithuania](#)
- [SMART food cluster](#)

Besides these individual cluster organisations, the National Association “Lithuanian Cluster Network **KlasterLT**”<sup>12</sup> plays an important role in supporting clusters and networks as well as the Lithuanian

<sup>12</sup> <https://klaster.lt/en/> (last access 18.09.2023)



innovation ecosystem. This organisation represents and promotes the cluster organisations from Lithuania both in a regional as well as an international context. KlasterLT represents a network of almost 60 cluster organisations and follows the objective of promoting cross-sectoral innovation, building regional value chains and supporting SMEs in capacity development and access to new markets.

Moreover, the **Innovation Agency Lithuania**<sup>13</sup> acts as the responsible body in Lithuania for developing and supporting the innovation ecosystem. Thereby, a variety of services are offered. These range from supporting SMEs by consulting services and other services, identifying new partners, organising trade missions, consulting support (e.g., on regulations, licences, etc.) as well as administering financial and other support measures.

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<sup>13</sup> <https://innovationagency.lt/> (last access 18.09.2023)

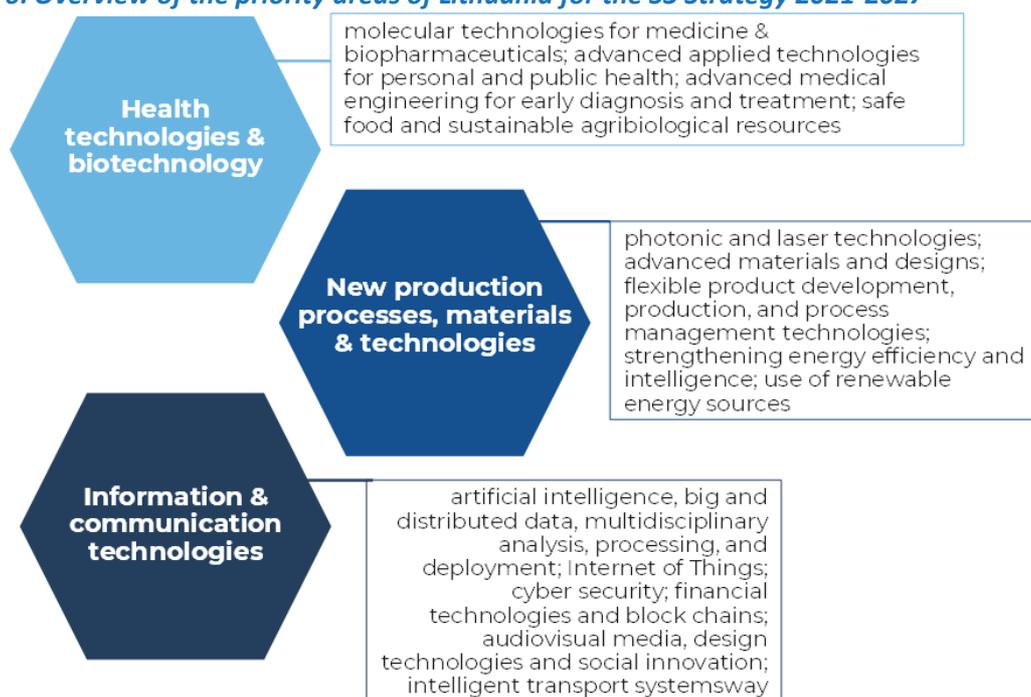


## Strategic innovation priorities in Lithuania

Smart Specialisation like cluster policy is a place-based approach that aims at utilising the advantages of proximity and promoting economic growth and competitiveness<sup>14</sup>, thereby concentrating resources into defined strategic priorities.<sup>15</sup> Due to the similarity of the two concepts, Cluster organisations can play an important role in the design and implementation of Smart Specialisation Strategies.

In the following, a brief overview of Smart Specialisation in Lithuania will be provided, and emphasis put on strategic priorities related to agri-food. Figure 6 shows the 3 priority areas for the Lithuanian S3 Strategy for 2021-2027. Currently, this strategy covers the three priority areas presented below which also include broad sub-priorities. Thereby, the priority area “Health technologies & biotechnology” through the sub-priority “safe food and sustainable agribiological resources” includes a **direct reference to the Agri-Food ecosystem** which further underlines the relevance of this field for Lithuania.

**Figure 6: Overview of the priority areas of Lithuania for the S3 Strategy 2021-2027**



Source: ECCP (2023). Own elaboration based on <https://s3platform.jrc.ec.europa.eu/region-page-test/-/regions/LT#s3priorities> (last access 16.10.2023)

<sup>14</sup> European Commission (2013): The role of clusters in smart specialisation strategies. Available under: <https://op.europa.eu/o/opportal-service/download-handler?identifier=2fe44194-e5a8-42b7-ac14-9c9b8e157de3&format=pdf&language=en&productionSystem=cellar&part=> (last access 20.02.2023).

<sup>15</sup> Prognos /CSIL (2021): Study on prioritisation in Smart Specialisation Strategies in the EU. Study on behalf of the European Commission. Available under: [https://ec.europa.eu/regional\\_policy/en/information/publications/studies/2021/study-on-prioritisation-in-smart-specialisation-strategies-in-the-eu](https://ec.europa.eu/regional_policy/en/information/publications/studies/2021/study-on-prioritisation-in-smart-specialisation-strategies-in-the-eu) (last access on 13.02.2023).

02

## Challenges for the agri- food ecosystem



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## 2. Challenges of the agri-food ecosystem

This chapter will outline key challenges of the agri-food ecosystem. A corner stone for this analysis is the EU Farm to Fork Strategy, the main areas mentioned therein and the implications of the strategy for value chains in this ecosystem.

### EU Farm to Fork (FtoF) Strategy

The EU Farm to Fork Strategy is a key part of the European Green Deal, the European Union's plan to make the EU's economy sustainable by 2050. The Farm to Fork Strategy aims to transform the EU's food system by making it more sustainable, healthy, and fair.

The EU Farm to Fork Strategy is following a roadmap to build a sustainable European Union (EU) food system, in line with the aims of the European Green Deal. It aims at creating a sustainable food value chain<sup>16</sup>. The strategy sets out both regulatory and non-regulatory initiatives, with the common agricultural and fisheries policies as key tools to support a just transition. A legislative framework for sustainable food systems supports the implementation of the strategy and development of sustainable food policy<sup>17</sup>. The Farm to Fork Strategy aims to accelerate our transition to a sustainable food system that should have a neutral or positive environmental impact, help to mitigate climate change and adapt to its impacts, reverse the loss of biodiversity, ensure food security, nutrition and public health, making sure that everyone has access to sufficient, safe, nutritious, sustainable food preserve affordability of food while generating fairer economic returns, fostering competitiveness of the EU supply sector and promoting fair trade.<sup>18</sup>

The strategy focuses on four main areas:

- **Sustainable production:** The strategy aims to reduce the environmental impact of food production by promoting sustainable farming practices, such as organic farming and agroecology.
- **Healthy diets:** The strategy aims to encourage people to eat healthier diets, with more fruits, vegetables, and whole grains.
- **Fair food chains:** The strategy aims to ensure that farmers and other actors in the food chain are fairly rewarded for their work.
- **Smart food consumption:** The strategy aims to reduce food waste and promote the circular economy in the food sector.

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<sup>16</sup> 'From Farm to Fork' strategy on sustainable food - European Parliament. Available online: [https://www.europarl.europa.eu/RegData/etudes/ATAG/2020/646132/EPRS\\_ATA%282020%29646132\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2020/646132/EPRS_ATA%282020%29646132_EN.pdf) (last access 17.10.2023)

<sup>17</sup> [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en) (last access 17.10.2023)

<sup>18</sup> [https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy\\_en](https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en) (last access 17.10.2023)



## Implications of the EU FtoF Strategy for the Agrifood Ecosystem

The Farm to Fork Strategy is an ambitious plan, but it is essential if the EU is to achieve its climate and environmental goals. The strategy has been welcomed by many environmental groups, but it has also been criticized by some farmers and food producers.

For agrifood professionals, the Farm to Fork Strategy has several **implications**:

1. it will require a shift to more **sustainable farming practices**, such as organic farming and agroecology. This will mean changes in how farmers produce food, but it will also create new opportunities for agrifood businesses that can provide the inputs and services that farmers need to adopt these practices.
2. it will promote **healthier diets**, with more fruits, vegetables, and whole grains. This will mean changes in the way that food is marketed and sold, but it will also create new opportunities for agrifood businesses that can produce and distribute these healthier foods.
3. it will aim to ensure that farmers and other actors in the food chain are **fairly rewarded** for their work. This will mean changes in the way that food is priced and distributed, but it will also create new opportunities for agrifood businesses that can help to ensure that farmers are paid a fair price for their products.

Overall, the EU Farm to Fork Strategy presents a number of challenges and opportunities for agrifood professionals. By understanding these challenges and opportunities, agrifood businesses can position themselves to be successful in the future. Here are some specific examples of how the Farm to Fork Strategy could impact agrifood businesses:

- **Organic farming businesses:** The Farm to Fork Strategy aims to increase the share of organic farming. This will create new opportunities for businesses that provide inputs and services to organic farmers, such as organic fertilizers, seeds, and pest control products.
- **Food waste reduction businesses:** The Farm to Fork Strategy aims to ensure that almost all food waste is prevented or recycled. This will create new opportunities for businesses that develop technologies and solutions to reduce food waste, such as food waste tracking systems and food donation platforms.
- **Fair trade businesses:** The Farm to Fork Strategy aims to ensure that farmers are fairly rewarded for their work. This will create new opportunities for businesses that source products from fair trade farmers, such as coffee, chocolate, and bananas.

The EU Farm to Fork Strategy is a complex and ambitious plan, but it has the potential to transform the EU's food system. Agrifood professionals who understand the challenges and opportunities presented by the strategy will be well-positioned to succeed in the future.

## Challenges to the agri-food ecosystem

The agri-food ecosystem is facing several challenges, including:

- **Climate change:** Climate change is already having a significant impact on the agri-food sector, and this impact is expected to worsen in the future. Climate change is causing more extreme



weather events, such as droughts, floods, and heat waves, which are making it difficult for farmers to produce food. Climate change is also causing pests and diseases to spread more easily, which is further threatening food production.

- **Water scarcity:** Water scarcity is another major challenge facing the agri-food sector. Water is essential for food production, and as the world's population grows, the demand for water is also increasing. This is putting a strain on water resources, and in some areas, water scarcity is already a major problem.
- **Soil degradation:** Soil degradation is the loss of soil quality due to erosion, compaction, nutrient depletion, and other factors. Soil degradation is a major challenge for the agri-food sector, as it can reduce crop yields and make it more difficult to produce food.
- **Increasing food prices:** Food prices have been rising in recent years, and this trend is expected to continue. This is due to a number of factors, including climate change, water scarcity, and soil degradation. Rising food prices are making it difficult for people to afford food, and this is a major concern for food security.
- **Increasing demand for food:** The world's population is expected to grow to 9.7 billion by 2050, and this will put a strain on the agri-food sector. The agri-food sector will need to find ways to increase food production in order to meet the needs of a growing population.
- **The rise of antibiotic resistance:** Antibiotic resistance is a major problem in the agri-food sector. Antibiotics are used to treat sick animals, but they are also used to promote growth in livestock. The overuse of antibiotics is leading to the development of antibiotic-resistant bacteria, which can pose a serious threat to human health.
- **The spread of zoonotic diseases:** Zoonotic diseases are diseases that can be transmitted from animals to humans. The spread of zoonotic diseases is a major concern for the agri-food sector, as it can lead to outbreaks of serious diseases, such as bird flu and swine flu.
- **The loss of biodiversity:** The agri-food sector is responsible for the loss of biodiversity. The intensive farming practices that are used to produce food are destroying natural habitats and driving species to extinction. The loss of biodiversity is a major threat to the sustainability of the agri-food sector.

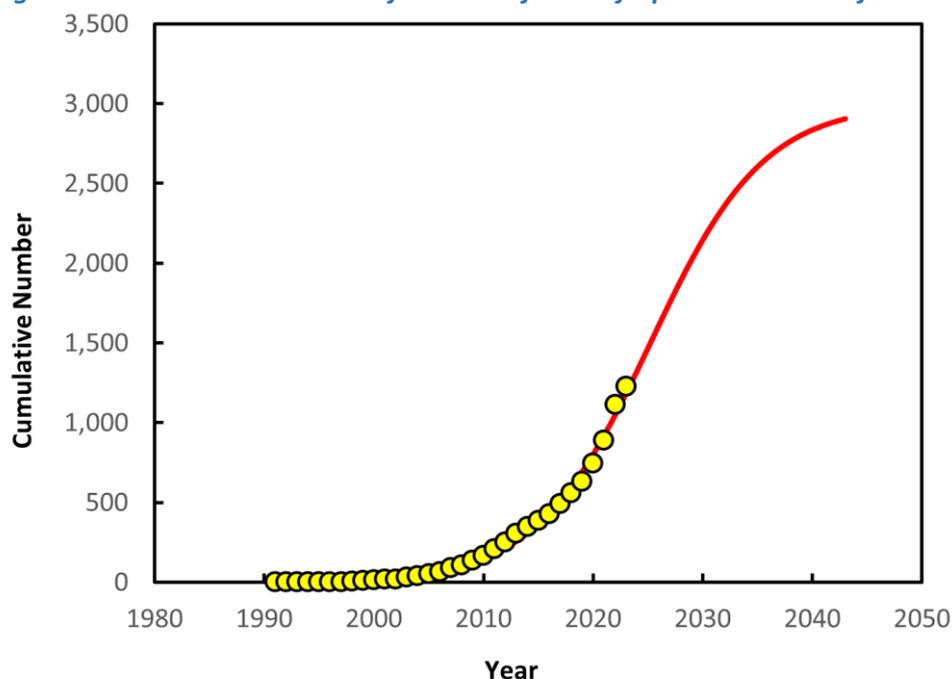
These challenges are complex and interconnected, and they will require a coordinated effort to address.

### Research and Development Priorities for Mitigation of Challenges

The scientific literature on “farm to fork” approaches has essentially emerged after 2003 and its cumulative evolution, as expressed by the number of yearly publications, follows (Figure 7) an s-shaped (logistic) curve that demonstrates that we are currently (2023) at about the peak (point of inflection) of the subject matter.



**Figure 7: Cumulative evolution of number of scientific publications on “farm to fork” approaches**



Source: ECCP (2023), based on research from the CHORUS Cluster

Some of the research and development priorities that could be used to address the challenges facing the agri-food ecosystem are:

- **Climate-smart agriculture:** Climate-smart agriculture is a set of practices that help to mitigate and adapt to climate change. These practices include using drought-resistant crops, improving irrigation efficiency, and using cover crops.
- **Water-efficient agriculture:** Water-efficient agriculture is a set of practices that help to conserve water. These practices include using drip irrigation, planting drought-resistant crops, and using rainwater harvesting.
- **Soil health:** Soil health is essential for food production. Research and development should focus on improving soil health through practices such as crop rotation, cover cropping, and no-till farming.
- **Resilient food systems:** Resilient food systems are able to withstand shocks and stresses, such as climate change and extreme weather events. Research and development should focus on developing resilient food systems through practices such as diversifying crop yields, storing food locally, and using climate-resilient infrastructure.
- **Sustainable aquaculture:** Aquaculture is the farming of aquatic organisms. Research and development should focus on developing sustainable aquaculture practices that reduce the environmental impact of fish farming.
- **Precision agriculture:** Precision agriculture is the use of technology to improve agricultural practices. Research and development should focus on developing precision agriculture technologies that can help farmers to reduce their inputs and improve their yields.



- **Alternative proteins:** Alternative proteins are proteins that do not come from animals. Research and development should focus on developing alternative proteins that are affordable, nutritious, and sustainable.

In addition to the research and development priorities mentioned above, there are a number of other areas that could be investigated to address the challenges facing the agri-food ecosystem. These include:

- The development of new crops and livestock breeds that are more resistant to climate change and pests.
- The development of new technologies for managing pests and diseases.
- The development of new ways to store and transport food.
- The development of new ways to educate consumers about the importance of sustainable food production.

### Mitigation of Agricultural Greenhouse Gases

Several actions can be undertaken for the mitigation of agricultural greenhouse gases outside government price policies, but many questions remain around their scalability and efficacy. Focusing on reducing emissions intensity via productivity improvements and addressing yield gaps is generally accepted as a useful entry point for mitigation as this can simultaneously meet food security, rural development, and climate change mitigation goals.<sup>19</sup> Sustainable agricultural systems offer ecosystem services such as pollination, biological pest control, regulation of soil and water quality, maintenance of soil structure and fertility, carbon sequestration and mitigation of greenhouse gas emissions, nutrient cycling, hydrological services, and biodiversity conservation.<sup>20</sup> Realizing the synergies and minimizing trade-offs between agricultural mitigation and food security will require financing for up-front investments, opportunity costs and capacity building. Levels of agricultural investment would need to be substantially increased compared to the last decade in developing countries, to meet these and other costs.<sup>21</sup>

The following two chapters will outline public and private funds that are relevant sources for innovative projects that address the challenges of the agri-food ecosystem. This overview is particularly relevant given that other reports identify a financing gap for the agri-food sector and a constraint of the supply of finance to small agri-food firms in Lithuania.<sup>22</sup>

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<sup>19</sup> Leahy, S., Clark, H., & Reisinger, A. (2020): Challenges and Prospects for Agricultural Greenhouse Gas Mitigation Pathways Consistent with the Paris Agreement. *Frontiers in Sustainable Food Systems*, 4. <https://doi.org/10.3389/fsufs.2020.00069>

<sup>20</sup> Kaur, R., & Kaur, S. (2022): Sustainable agricultural practices for food security and ecosystem services in the face of climate change. *Environmental Science and Pollution Research International*, 29(5), 5563–5577. <https://doi.org/10.1007/s11356-022-23635-z>

<sup>21</sup> FAO (2013): Food Security and Agricultural Mitigation in Developing Countries: Options for Capturing Synergies. <http://www.fao.org/3/i1318e/i1318e00.pdf> (last access 17.10.2023)

<sup>22</sup> EIB (2020): Financial needs in the agriculture and agri-food sectors in Lithuania. Available online: [https://www.fi-compass.eu/sites/default/files/publications/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Lithuania.pdf](https://www.fi-compass.eu/sites/default/files/publications/financial_needs_agriculture_agrifood_sectors_Lithuania.pdf) (last access 17.10.2023)

03

**Turn your project idea into  
practice: public funding  
instruments for innovation**



**EUROPEAN CLUSTER  
COLLABORATION PLATFORM**

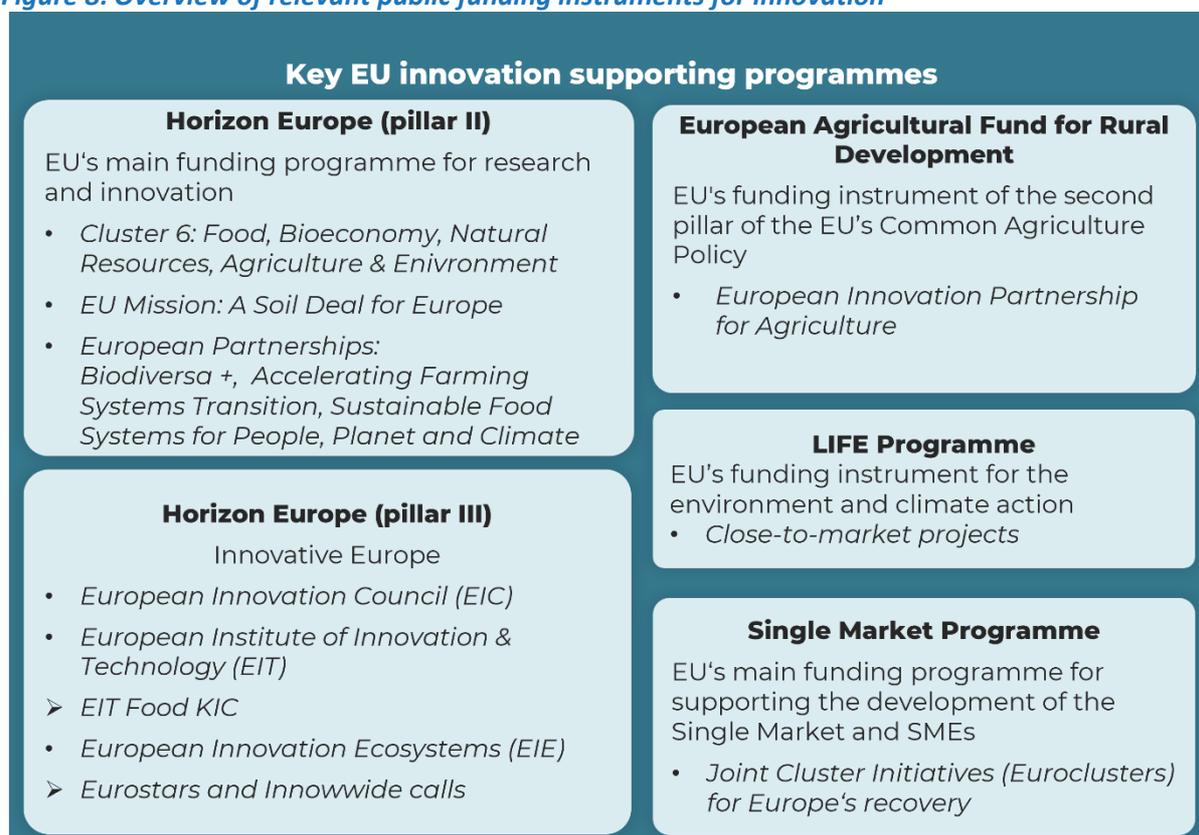
Strengthening the European economy through collaboration



### 3. Turn your project idea into practice: public funding instruments for innovation

Public funding schemes play a pivotal role in strengthening innovation in Europe. In order to raise awareness of cluster community and seed ideas for future proposals, this chapter outlines diverse funding opportunities for projects that aim to support the green and digital transition, primarily in the areas of food, agriculture, and biodiversity. It lists budgets of the selected programmes, concrete calls for proposals, topics funded, partner search and networking opportunities as well as advisory services and supporting tools, relevant for cluster organisations. Figure 8 gives an overview of relevant funding schemes that are presented in the chapter.

**Figure 8: Overview of relevant public funding instruments for innovation**



Source: ECCP (2023).



## Key EU innovation supporting programmes

### European Agricultural Fund for Rural Development (EAFRD)

#### Total programme budget 2021-2027

 EUR 95.5 billion

#### Participating countries



#### 6 priorities of the EAFRD

-  Knowledge Transfer & Innovation
-  Farm Viability and Competitiveness
-  Food Chain Organisation and Risk Management
-  Restoring, Preserving and Enhancing Ecosystems
-  Resource-efficient, Climate-resilient Economy
-  Social Inclusion and Economic Development



#### Support tools

- Innovation and knowledge exchange via [EIP-AGRI Newsletter](#)
- [The EU CAP Network](#) website
- [The European Agricultural Fund for Rural Development | fi-compass](#)

#### General description

[The European Agricultural Fund for Rural Development](#) (EAFRD) is the funding instrument of the second pillar of the EU's [Common Agriculture Policy](#) (CAP). It aims to strengthen the 'first pillar' of income supports and market measures by strengthening the social, environmental and economic sustainability of rural areas. The EAFRD finances the CAP contribution to the EU's rural development objectives by enhancing agricultural competitiveness, promoting sustainable natural resource management and climate mitigation, and attaining equitable territorial development for rural economies and communities. These objectives are realised through national and regional [rural development programmes](#) (RDPs), which are co-financed by the EAFRD and the national budgets of EU countries. While the European Commission approves and monitors RDPs, **decisions regarding the selection of projects and the granting of payments are handled by national and regional managing authorities.**

Each RDP must work towards at least four of the six priorities of the EAFRD that are broken down into 18 specific [focus areas](#). In RDPs countries set out targets linked to their chosen priorities, focus areas, and a strategy for meeting their targets.

It is worth noting four key features of RDPs:

- **Dedicated climate and environment funds:** at least **30%** of funding for each RDP must be allocated to measures relevant for the environment and climate change, through grants and annual payments to farmers who switch towards more environmentally friendly practices.



- **Financial instruments:** the EAFRD acts as a source for loans, microcredit, guarantees and equities, available to recipients in agriculture, forestry and rural areas who are undertaking financially viable projects that support the priorities of the EAFRD. Financial instruments are expected to support the agriculture and agri-food sectors to make the progress needed for the [European Green Deal](#) and to achieve ambitious targets in line with the new [Biodiversity](#) and [Farm to Fork strategies](#). They can also contribute to the new [long-term vision for rural areas](#) through helping rural non-agricultural SMEs start or develop their activities.

**[Fi-Compass](#) includes further information on EAFRD financial instruments.**

- **Promotion of smart villages:** Rural development programmes can also support the [smart villages](#) initiative, aiming to provide a handy toolbox to foster, enable and scale up innovation in rural areas around Europe, addressing the common challenges faced by citizens living in rural territories.
- **Support for local actions:** at least **5% of RDP** funding must go to actions based on the [LEADER / community led local development](#) approach.

More information about the implementation of rural development programmes by country can be found [here](#). What is more, please feel invited to participate [EU Agri-Food Days in Brussels from 5-8 December 2023](#) to discuss on

the outlook of European agriculture, market trends, food security, sustainability, and digital innovation.

### **European innovation partnership for agriculture**

[The European Innovation Partnership for Agricultural Productivity and Sustainability](#) (EIP-Agri) also supports the goals of rural development by encouraging innovation in agriculture and rural communities. The Partnership was created to bridge the gap between the innovative solutions created by researchers and the uptake of new technologies by those living and working in rural areas. By creating partnerships between those who will eventually use new technology and those that create them, EIP-Agri aims to accelerate the uptake of change.



## Horizon Europe (Pillar II)

### Total programme budget 2021-2027



EUR 95.5 billion

### Participating countries



+ third countries associated to HE + other third countries

### II pillar of HE

#### Relevant Clusters:



Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture & Environment

#### Relevant EU Missions:



A Soil Deal for Europe

#### Relevant European Partnerships:



Biodiversa+



Accelerating Farming Systems Transition



Sustainable Food Systems for People, Planet and Climate



#### Support tools

- [Partner Search Services](#)
- [Online manual](#) guide on the procedures from proposal submission to managing your grant.
- Materials from [HE Cluster 6 Info Day](#)
- Factsheet [Tips and tricks to apply for Horizon Europe calls](#)

### General description

[Horizon Europe](#) is the EU's key funding programme for research and innovation that aims to tackle climate change, boosts the EU's growth, and promotes industrial competitiveness and optimises investment impact within a strengthened European Research Area. The Programme targets to invest approximately 10 billion euro in R&I related to food, bioeconomy, natural resources, agriculture, fisheries, aquaculture, and environment in line with the objectives of the [European Green Deal](#) related to the [Biodiversity Strategy to 2030](#), the [Farm to Fork strategy](#), as well as the [long-term vision for rural areas](#), and the Sustainable Development Goals. Apart from the EU members, the third countries associated to HE and participants with low- or middle-income third countries are eligible for funding (the full list can be accessed [here](#)).

### Types of projects funded

Projects funded under HE can be divided into three main types: 1) **RESEARCH, AND INNOVATION ACTIONS (RIA)** aim at establishing new knowledge or exploring a new or improved technology, product, process, service or solution (the EU funding covers up to 100% of the project costs); 2) **INNOVATION ACTIONS (IA)** aim at producing plans or designing for new or improved products, processes or services including prototyping, testing, demonstrating, piloting, large-scale product validation and market replication (the EU funding covers up to 70% of the project costs); 3) **COORDINATION AND SUPPORT ACTIONS (CSA)** that aim at improving cooperation among EU and associated countries to strengthen the European Research Area including standardisation, dissemination, awareness-raising, communication, and networking activities (up to 100% of the project costs).



## Topics of calls for proposals

As part of the [Cluster 6 2023 – 24 Work Programme](#) and its Destination ‘Fair, healthy and environmentally friendly food systems from primary production to consumption’, single-stage and two-stage calls were launched on 17 October 2023. For the single-stage call for proposals, applicants submit a final proposal by the call deadline. For the two-stage call for proposals, applicants submit an outline application (maximum 10 pages) by the first deadline which will be evaluated against only two award criteria: ‘Excellence’ and ‘Impact’. Successful applicants are invited to submit a full proposal by the second deadline, which will be evaluated against the full set of award criteria.

The calls with overall indicative budget of 164 million euro encompass 18 topics such as:

- food waste prevention
- food safety
- tackling food fraud
- agro-pastoral/outdoor livestock systems and wildlife management
- sustainable organic food
- resilient fisheries



### Call for proposals (non-exhaustive list)

#### Cluster 6 calls under Destination Food (...)

Opening date: 17 October 2023

One-stage calls’ deadline: 22 February 2024

Two-stage calls’ deadlines: : 22 February 2024 & 17 September 2024 (full proposal)

- [HORIZON-CL6-2024-FARM2FORK-01-5](#): Creating smart and attractive tools to enhance healthy and sustainable food provision, eating and treating of food at home (IA)
- [HORIZON-CL6-2024-FARM2FORK-01-9](#) : Microbiome for flavour and texture in the organoleptic dietary shift (IA)
- [HORIZON-CL6-2024-FARM2FORK-01-4](#): Climate change and food safety: effects of climate change on food safety across food systems (RIA)
- [HORIZON-CL6-2024-FARM2FORK-01-2](#): New healthy and sustainable food products and processes (RIA)
- [HORIZON-CL6-2024-FARM2FORK-01-7](#): Impact of the development of novel foods based on alternative sources of proteins (RIA)
- [HORIZON-CL6-2024-FARM2FORK-01-1](#): Agro-pastoral/outdoor livestock systems and wildlife management (RIA)
- [HORIZON-CL6-2024-FARM2FORK-01-8](#): Preventing and reducing food waste to reduce environmental impacts and to help reach 2030 climate targets (RIA)
- [HORIZON-CL6-2024-FARM2FORK-02-3-two-stage](#): Tools to increase the effectiveness of EU import controls for plant health (IA)
- [HORIZON-CL6-2024-FARM2FORK-02-7-two-stage](#): Minimising climate impact on aquaculture - mitigation and adaptation solutions for future climate regimes (IA)
- [HORIZON-CL6-2024-FARM2FORK-02-6-two-stage](#): Minimising climate impact on fisheries: mitigation and adaptation solutions for future climate regimes (IA)



- [HORIZON-CL6-2024-FARM2FORK-02-1-two-stage](#): Increasing the availability and use of non-contentious inputs in organic farming (IA)
- [HORIZON-CL6-2024-FARM2FORK-02-4-two-stage](#): Tackling outbreaks of plant pests (RIA)
- [HORIZON-CL6-2024-FARM2FORK-02-2-two-stage](#): Sustainable organic food innovation labs: reinforcing the entire value chain (IA)

**Cluster 6 calls under Destinations 'Biodiversity and Ecosystem Services' and 'Land, ocean and water for climate action'**

Opening date: 17 October 2023

One-stage calls' deadline: 22 February 2024

Two-stage calls' deadlines: : 22 February 2024 & 17 September 2024 (full proposal)

- [HORIZON-CL6-2024-BIODIV-01-8](#): Conservation and protection of carbon-rich and biodiversity-rich forest ecosystems (RIA)
- [HORIZON-CL6-2024-BIODIV-01-6](#): Promoting pollinator friendly farming systems (RIA)
- [HORIZON-CL6-2024-BIODIV-01-7](#): Reintroduction of landscape features in intensive agricultural areas (RIA)
- [HORIZON-CL6-2024-BIODIV-01-1](#): Invasive alien species (IA)

- [HORIZON-CL6-2024-BIODIV-02-3-two-stage](#): Promoting minor crops in farming systems (RIA)
- [HORIZON-CL6-2024-BIODIV-02-1-two-stage](#): Demonstrating Nature-based Solutions for the sustainable management of water resources in a changing climate, with special attention to reducing the impacts of extreme droughts (IA)
- [HORIZON-CL6-2024-CLIMATE-01-4](#): Land use change and local / regional climate (RIA)
- [HORIZON-CL6-2024-CLIMATE-01-3](#): Paludiculture: large-scale demonstrations (IA)
- [HORIZON-CL6-2024-CLIMATE-01-1](#): Improving irrigation practices and technologies in agriculture (IA)
- [HORIZON-CL6-2024-CLIMATE-01-5](#): Climate-smart use of wood in the construction sector to support the New European Bauhaus (RIA)



#### Support tools

To learn more about expected grant size and budgets of 2024 calls under Cluster 6, please see the [EU CAP Network Brochure on funding opportunities under Horizon Europe](#).



## EU Mission Soil

Horizon Europe funds EU Missions to deliver practical solutions to some of our greatest challenges. **The EU Mission entitled ‘A Soil Deal for Europe’ aims to establish a network of 100 living labs and lighthouses in rural and urban areas to lead the transition to healthy soils by 2030** by co-creating knowledge, testing solutions and demonstrating their value in real-life conditions.

The Mission Soil provides funding to create and operate living labs, with the first ones due to start in 2024. Farmers, foresters and other land managers are encouraged to participate in living labs. The Mission also contributes to advancing soil monitoring and increasing societal awareness about the importance of soil health.

For further info and updates, please keep an eye on the Mission Soil website [EU Mission: A Soil Deal for Europe webpage](#).



### Advisory services

To obtain information about the abovementioned calls, please reach out to your National Contact Point [here](#).

You can also consult the [15 thematic factsheets](#) on Research & Innovation in agriculture, forestry and rural areas:

- [Agroecology and organic farming](#)
- [AKIS](#)
- [Animal health](#)
- [Animal production](#)
- [Climate](#)
- [Digital transformation in agriculture and rural areas](#)

- [Fertilisers](#)
- [Genetic resources and breeding](#)
- [Plant health](#)
- [Rural areas and rural communities](#)
- [Soils](#)
- [Sustainable, circular and innovative value chains](#)
- [Sustainable forest management](#)
- [Urban agriculture](#)
- [Water management](#)



## Funding for innovative start-ups under Horizon Europe (Pillar 3)

### European Innovation Council (EIC)

#### Total programme budget 2021-2027



EUR 10.1 billion

#### Participating countries



+ third countries associated to HE + other third countries

#### Thematic priorities

Support for **any technologies and innovations** that cut across scientific, technological, sectoral and application fields or represent novel combinations.



#### Call for proposals

The calls for proposals will be launched in 2024 once EIC work programme 2024 is adopted.



#### Support tools

[EIC FAQs](#): overview of the most asked questions from the EIC applicants and beneficiaries.



#### Advisory services

Reach out to your [HE National Contact Point](#) or to [Access 2 EIC](#) network supporting EIC applicants

#### General description

The [European Innovation Council](#) is one of the flagship programmes of the HE programme to support breakthrough innovations of SMEs and start-ups. A majority of the funding is awarded through 'open' calls with no pre-defined thematic priorities. Support from the EIC goes beyond funding as all beneficiaries receive access to a range of tailor-made [EIC Business Acceleration Services](#).

The EIC consists of three different support strands:

- [EIC Pathfinder](#) offers support for scientific, technological, or technology-oriented research and development in the earliest stages of development for SMEs and research consortia (TRL<sup>23</sup> 1-4). Each project can receive up to EUR 4 million.
- [EIC Transition](#) funds innovative activities of SMEs, start-ups and spin-offs that go beyond experimental proof of the principle in the laboratory (validation) with TRL 4-6. Each project can receive up to EUR 2.5 million.
- [EIC Accelerator](#) supports single companies' innovations in later stages of development (TRL 6-9). Each project can receive a grant of up to EUR 2.5 million and additional max. EUR 15 million of equity.

<sup>23</sup> Technology Readiness Level; for reference please see the scale [here](#).



## European Institute of Innovation and Technology (EIT)

### Total programme budget 2021-2027

 EUR 3 billion

### EIT funding for EIT Food

 EUR 354 mln

### Participating countries



+ third countries associated to HE + other third countries

### Thematic priorities

-  Urban Mobility
-  Climate Change
-  Cultural & Creative Sectors
-  Digitisation
-  **Future of Food**
-  Health Innovation
-  Sustainable Energy
-  Added-Value Manufacturing
-  Raw Materials



### Call for proposals

Open Impact Funding call for **larger-scale collaborative programmes**, and **innovative single projects** was closed recently. The next submission window is envisaged on 14 March 2024, but this funding opportunity is intended to remain open until 31 December 2025. Please find out more about the timeline [here](#).

### General description

As part of Pillar 3 'Innovative Europe', the [European Institute of Innovation & Technology \(EIT\)](#) primarily aims to strengthen sustainable innovation ecosystems across Europe, foster the development of entrepreneurial and innovation skills, and bring new solutions to global societal challenges to the market.

It brings together organisations across business, education, and research in order to find and commercialise solutions to pressing global challenges. For each global challenge, there is an ecosystem of partnerships called [Knowledge and Innovation Communities \(KICs\)](#). There are currently nine KICs that operate in the areas of climate change, cultural & creative sectors & industries, digital transformation, sustainable energy, food, health, raw materials, urban mobility and added-value manufacturing.

### EIT Food

[The EIT Food](#) is a Knowledge and Innovation Community dedicated to making food system more sustainable and to support innovative projects that help speed up the transition to sustainable agriculture and food systems. EIT Food accelerates innovation through its mission-based approach by creating connections that stimulate new ideas and inventions, driving change throughout the food system. These connections are established between start-ups and corporations, entrepreneurs and investors, consumers and the industry, and research and action. [The initiative](#) is made up of a consortium of more than 300 key industry players, businesses, agrifood startups, research centres and universities from across Europe with more than 400-million-euro



investment attracted to start-ups. To check EIT Food Partners Network, please click [here](#).

### EIT Food support for start-ups

Startups play a fundamental role in building a future-fit food system that produces healthy and sustainable food for all. First of all, EIT Food facilitates **investment opportunities for Europe's more promising start-ups through financing and connecting with the partners**, either via direct investment or matching selected startups with agrifood investors (EIT Food core partner FoodSparks invests in seed and early-stage start-ups from farm to fork). Furthermore, it facilitates **corporate innovation** by connecting world-leading industry with impactful agrifood startups. Through tailored matchmaking the EIT Food helps to solve immediate challenges, lower costs, identify new product lines, and drive value creation for corporates sharing the mission to transform the global food system.

### EIT Food open Impact Funding Framework

[EIT Food Impact Funding Framework](#) addresses two separate areas – larger-scale collaborative programmes, and innovative single projects. [Collaborative Missions Programmes Funding](#) co-funds alliances/ consortia and collaborative programmes designed to diminish food-system-associated environmental harms, deal with the threats posed by food integrity and complex supply chains, and improve the impact of diet on obesity and non-communicable disease. In addition, Impact Funding supports [Single Projects](#) offering **innovative solutions** to some of the most urgent challenges in skills, innovation, business creation and public engagement. These projects shall be fast paced in terms of getting the solutions in three priority areas:

- Protein Diversification: bringing protein diversification to the mainstream

- Regenerative Agriculture: enabling farmers to lead the transition to Net Zero
- Labelling, Packaging & Transparency: empowering people in their food choices

The primary focus should be placed on delivering real-world benefit through innovation, education and entrepreneurship and engaging customers/citizens/public in order to demonstrate economic or social value of the innovation.

### EIT Food Accelerator Network

The [EIT Food Accelerator Network](#) provides a 2-3 month programme for agri-food tech startups to advance their technological and commercial readiness in one of five innovation hubs: Helsinki, Munich, Paris, Bilbao, Haifa. It includes funding of up to €50,000 to implement a tech innovation roadmap, master classes and mentoring to prepare for commercialization, facilitated access to investors through the Simple Agreement For Future Equity (“SAFE”) instrument for up to €500,000 per venture, and networking with industry leaders including up to €1,500 for travelling expenses. Applications are open December to February.



## European Innovation Ecosystems (EIE)

### Total programme budget 2021-2027

 EUR ~527 million

### Participating countries

 + third countries associated to HE

### Thematic priorities

 CONNECT

 INNOVSMES



### Forthcoming call for proposals

- [Eurostars funding programme call 6](#) from 12 January 2024 to March 14, 2024
- [HORIZON-EIE-2024-CONNECT-01-02: Startup Europe](#): Planned opening date: 11 January 2024
- [HORIZON-EIE-2024-CONNECT-02-01: Expanding Academia-Enterprise Collaborations](#) Planned opening date: 6 June 2024



### Partner search & networking

Partner search is offered through the call website on the Funding and Tenders portal for each call. Also the national funding body can help you to find project partners by contacting other national funding bodies in Eureka's network (consisting of over 45 member countries).

### General description

As part of the Horizon Europe programme, the [European Innovation Ecosystems](#) aim at building interconnected, inclusive innovation ecosystems across Europe, encompassing national, regional and local ecosystems, to undertake and achieve collective ambitions towards the benefit of society, including the green, digital, and social transitions. Objectives are based on the New [European Innovation Agenda](#).

### Types of topics funded

Calls for proposals are divided into two focus areas. The **CONNECT** calls aim at elaborating interconnected European innovation Ecosystems through the existing capacities of national, regional, and local ecosystems. A special characteristic is that capacities and skills should be shared with less-represented actors and territories. In addition, the **European Partnership on Innovative SMEs/EUROSTARS-3** supports innovative SMEs to increase their research and innovation capacity and productivity as well as to access new markets by offering Eurostars and Innowwide funding.

### EUROSTARS funding

Eurostars is a funding instrument that supports innovative SMEs and project partners (large companies, universities, research organisations and other types of organisations) by funding international collaborative R&D and innovation projects. **By participating, organisations can access public funding for international collaborative R&D projects in all fields.** To apply, several criteria must be fulfilled, for instance:



- The project consortium needs to be led by an innovative SME from a Eurostars country<sup>24</sup> and is composed of at least two entities that are independent of one another.
- The project consortium includes entities from at least two Eurostars countries with at least one organisation coming from an EU or Horizon Europe Associated Country<sup>25</sup>.
- The budget of the SMEs from the participating countries (excluding any subcontracting) is 50% or more of the total project cost.
- The project duration is 36 months or less.

understand whether your product-, process- or service-market combination could be commercialised in selected target market.

Innowwide funding is available only for SMEs in European Union Member States or Iceland, Israel, Norway or Türkiye. However, you are allowed to subcontract to your partner in your selected target country in Africa, the Americas, Asia or Oceania. Subcontracted partners sign a commitment before you submit your project application.

The Innowwide call for market feasibility projects was closed on 17 October 2024. To stay updated on open calls for projects, please follow the [Eureka website](#).

The amount of funding your organisation receives when you participate in a project is managed by your [national funding body](#).

More information is available on the Eurostars 6 call that will be open in January 2024 on [the Eureka Network website](#).

### INNOWWIDE funding

[Innowwide](#) provides 6-month grants of 60,000 euros to assist innovative small and medium-sized enterprises (SMEs) in evaluating the feasibility of their research or business aspirations in global markets. In other words, Innowwide funding could be used to assess whether your local partner (or subcontracted organisation) can cooperate with you in a future international R&D project or to

<sup>24</sup> **Eurostars countries:** Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia,

South Africa, South Korea, Spain, Sweden, Switzerland, Türkiye, and the United Kingdom.

<sup>25</sup> **Eurostars countries which are not an EU member state or a Horizon Europe Associated Country:** Canada, South Korea, Singapore, South Africa, Switzerland, and the United Kingdom.



## LIFE Programme: close-to-market projects

### Total programme budget 2021-2027



EUR 5.4 billion

### Participating countries



### Two relevant LIFE subprogrammes



Climate Change Mitigation and Adaptation



Circular Economy and Quality of Life



### Call for proposals

Every year the EC publishes LIFE calls for proposals. Applicants for close-to-market projects can apply in both abovementioned areas.



### Support tools

- Dedicated page on [support for applicants](#)
- Materials from [EULife23 INFO DAYS](#)



### Advisory services

Get in touch with your national contact point [national contact point](#) for the LIFE programme.

### General description

[The LIFE Programme](#) is the EU's funding instrument for the environment and climate action. Its close-to-market part supports private and public entities bring their green products, technologies, services, and processes to the market. [LIFE close-to-market projects](#) launch innovative, demonstrative solutions e.g., in waste management, the circular economy, resource efficiency, water, air or climate change mitigation. They also need to present a high level of technical and business readiness which means that solutions could be implemented in close-to-market conditions (at industrial or commercial scale) during the course of the project or shortly after its completion.

### Types of topics funded (*non-exhaustive list*)

#### Climate Change Mitigation and Adaptation

- farming, land use
- peatland management
- resilience of infrastructure
- sustainable management of water in drought-prone areas

#### Circular Economy and Quality of Life

- circular economy (recovery of resources from waste, water, air, noise, soil, and chemical management)

To get inspired, find more examples of completed close-to-market LIFE projects [here](#).



## Single Market Programme (SMP)

### Total programme budget between 2021-2027

 EUR ~4.2 billion

### Participating countries



### Thematic priorities

-  Food safety
-  Consumer protection
-  Effective Single Market
-  Development of standards
-  European Statistics



### Call for proposals

The call on European AgriFood Sustainability Cluster Partnerships ([SMP-COSME-2023-AGRICLUSTER](#)) was closed on 7 November 2023. Calls for proposals for actions supporting a safe, sustainable foodchain under the Single Market Programme will be advertised on the website of the [European Health and Digital Executive Agency](#) and published on the European Commission's [Funding and tender portal](#).

### General description

As the successor programme of the COSME programme and five other support programmes of the 2014-2020 funding period, (e.g. consumer protection or financial support), the [Single Market Programme \(SMP\)](#) aims at supporting the EU single market to reach its full potential and to boost growth, competitiveness and employment. The overall objective of the SMP is to create jobs, support the long-term recovery due to the COVID-19 pandemic and ensure food safety.

Besides the EU27 Member States, Iceland, Norway and Liechtenstein, there are ongoing negotiations with [additional 12 countries](#) interested in joining the SMP Programme.

### Types of topics funded under food safety theme

**Activities** supported under the SMP are diverse: from preventing, controlling, and eradicating animal diseases and plant pests through supporting sustainable food production and consumption and supporting the improvement of animal welfare to improving the effectiveness, efficiency and reliability of official controls.

### Target audience

The SMP targets different types of stakeholders such as SMEs, cluster organisations and more.



### Partner search & networking

Partner search is offered through the call website on the Funding and Tenders portal for each call.



## Joint Cluster Initiatives (Euroclusters) for Europe's recovery as part of the SMP

### Total programme budget between 2021-2027

 EUR ~42 million

### Participating countries



### Thematic priorities

-  Tourism
-  Aerospace & Defence
-  Retail
-  Digital
-  Creative-cultural industry
-  Textiles
-  Proximity/Social economy
-  Construction
-  Energy-intensive industry
-  Electronics
-  **Agri-food**
-  Renewable Energy
-  Mobility-Transport
-  Health

### General description

As part of the European Single Market Strategy, the Eurocluster call aims at strengthening the resilience of cluster networks within the EU industrial ecosystem through the establishment of value chain interlinkages through European cluster networks. Moreover, the Eurocluster calls foresee to enable cluster organisations to speed up twin transition processes and to improve up- and re-skilling of the skilled workers as well as the increase internationalisation. In September 2022, the first [30 Euroclusters](#) have started their activities.

### Types of topics funded

The focus of the Euroclusters projects should be at least on one of the 14 [EU Industrial Ecosystems](#). As part of the open strand, project proposals can include several elements of different EU Industrial Ecosystems (Cross-Innovation).

### Call for proposals

No new call is foreseen in the recently adopted WP 2023. Other calls are however expected in the to be launched in 2024. Upcoming calls for proposals will be published on the [Funding & Tenders portal](#).

### Target audience

Eurocluster projects focus on supporting cluster organisations and cluster networks. The current 30 Euroclusters offer regularly third-party support for SMEs. Open call opportunities for SMEs can be found [here](#).

### Additional information

More information can be found on the [dedicated Eurocluster website on the ECCP](#).

04

**Turn your project idea into  
practice: private funds for  
innovative business**



**EUROPEAN CLUSTER  
COLLABORATION PLATFORM**

Strengthening the European economy through collaboration



## 4. Turn your project idea into practice: private funding for innovative business

Studies and surveys have repeatedly shown that there is a significant funding gap in the agri-food ecosystem, both in Europe<sup>26</sup> at large and in Lithuania in particular.<sup>27</sup> It is therefore paramount to make use of all financing opportunities available. The purpose of this chapter is to present an overview of private sources of funding available to finance projects in agri-food.

- The first part of this chapter will describe the main structural problems of innovation financing in Europe, summarised under the catchphrase of the ‘European Valley of Death’ for innovative, young enterprises.
- The second part will then provide an overview of different sources of private funding for innovative agri-food businesses in the Baltic and Nordic regions with a focus on equity and debt financing. It will also point to business support services that help these firms to network and find markets for their products.
- The third part gives a short glimpse on the support coming from the EU for the activities of private financing actors, mostly in the form of co-financing and guarantees through the EIB and EIF.
- The fourth part gives a handy introduction on how to use a business model canvas to promote a project idea.

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<sup>26</sup> See the survey results presented at the 9<sup>th</sup> annual EU conference on EAFRD-funded financial instruments on the financing gap for farmers and agri-food SMEs in 2022: [https://agriculture.ec.europa.eu/news/access-finance-remains-insufficient-farmers-and-agri-food-smes-2023-10-12\\_en](https://agriculture.ec.europa.eu/news/access-finance-remains-insufficient-farmers-and-agri-food-smes-2023-10-12_en) (last access 18.10.2023).

<sup>27</sup> EIB (2020): Financial needs in the agriculture and agri-food sectors in Lithuania. Available under: [https://www.fi-compass.eu/sites/default/files/publications/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Lithuania.pdf](https://www.fi-compass.eu/sites/default/files/publications/financial_needs_agriculture_agrifood_sectors_Lithuania.pdf) (last access 17.10.2023).

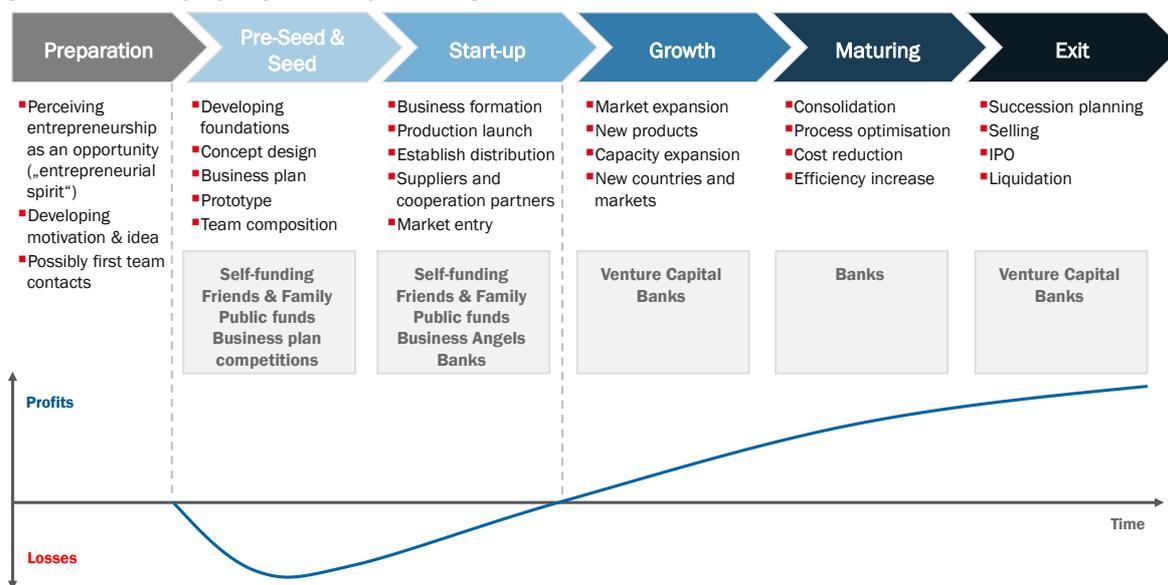


## Financing innovation: The European Valley of Death

There is a yawning gap between Europe’s world-class research and inventiveness and its sluggish commercialisation of innovation. Startups who aim to develop research output into market products often end up in the figurative ‘Valley of Death’. It describes the lack of early-stage funding that inhibits the translation of European knowledge into marketable goods and services. The result is an estimated 95% of European patents lying idle while the remaining 5% contribute more than 40% to the European GDP in IPR-intensive industries.<sup>28</sup>

The valley of death occurs in the stage after initial funding (e.g., from public funds or business angels) ends before institutional investors like banks and venture capital are ready to support the market expansion of proven and market-ready products (see Figure 9 below).

Figure 9: Start-up life cycle and financing



Source: Own elaboration by Prognos (2023).

To overcome the valley of death and propel their business into the growth phase, entrepreneurs need to convince potential investors of their product while it is still in the incipient stage. While still existent, the problem has risen to the attention of investors and policymakers alike. New lines of public, private or hybrid funding are emerging to bridge the deadly gap.

This chapter provides an overview of potential types of investors and their specific characteristics, starting points and examples for relevant market intelligence as well as a practical guide to construct a convincing business model canvas.

<sup>28</sup> European Patent Office & European Union Intellectual Property Office 2019 and Siota et al. 2020, p. 16.



## Overview: Sources of private funding and business support services

Sources of private financing for agri-food businesses are diverse and especially for farmers' operational financing agricultural cooperatives, trade credit, commodity and futures markets, as well as export financing play an important role. This chapter, however, will focus on **financing opportunities for innovation in the agri-food ecosystem**, namely equity and debt financing.

First touchpoints on the topic of financing opportunities for the agri-food sector can be found here:

- [EIT Food's Startup Guide](#) for Lithuania includes information on the local agri-food markets, stakeholders in the agri-food industry, funding opportunities for agri-food startups as well as a guide on how to set up a company in Lithuania.<sup>29</sup> More EIT Food **advice for agri-food entrepreneurs** in general can be accessed [here](#).
- Information on investment and developments in agri-food tech can be found at [AgFunderNews \(AFN\)](#).

### Equity financing

Equity financing means to raise capital by selling ownership stakes (equity) in a company to investors. In exchange for their investment, shareholders become partial owners of the business and may receive a portion of its profits or have voting rights in decision-making. There are **different sources of equity financing**, including venture capital firms, corporate venture capital, business angels, as well as family offices.

**General market intelligence** on private equity and venture capital actors can be consulted at the following sources:

- **InvestEurope**, the European private equity association, provides [data and reports](#) on fundraising, investment and divestment from over 1,800 private equity and venture capital firms in Europe.
- **Dealroom**, a market intelligence provider with a focus on European venture capital, [monitors](#) startup and venture capital developments and provides reports, briefings and other materials.
- Further recent insights into the European investment landscape can be found in the [State of European Tech](#) report for 2022.

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<sup>29</sup> EIT Food (2022): EIT-Food Startup Guide Lithuania. Available under: <https://www.eitfood.eu/files/EIT-Food-Lithuania-Start-up-Guide.pdf> (18.10.2023). Equivalent guides are available for [Estonia](#), [Latvia](#), and other EU27 member states.



## Venture capital

[Venture capital](#) (VC) is generally expected to play a crucial role in the commercialization of green technologies. VC firms provide early-stage funding to startup companies in exchange for equity in the company, with the goal of generating a return on investment through an eventual exit, such as an initial public offering (IPO) or acquisition by a larger company. VC firms which are focused on specific sectors or innovation ecosystems can also provide valuable support beyond funding, including business strategy guidance, mentorship, and network connections.

Although VC certainly plays its role in financing cleantech innovation, it also comes with some limitations that are worth keeping in mind.<sup>30</sup> Those limitations derive from the typical business model of VC firms which aim for fast growth and high returns. The type of company that suits these expectations best is usually in software or services that are rapidly scalable and come with the promise of market domination and monopoly profits. Agri-food startups might not always fit the VC model due to their higher capital intensity and regulatory challenges and a longer time horizon. Therefore, within the agri-food ecosystem, technology-focused startups are most suitable for VC funding.

Over the recent decade, **agri-food tech has increasingly become a field for venture capital financing**. As more and more “agri-food tech startups that promise to solve critical issues in the agri-food system through technological innovation”, the ecosystem is “increasingly perceived as an attractive new investment opportunity for venture capitalists and investors.”<sup>31</sup> The following examples give a first overview:

- AFN provides a list of the [Top 10 most active agri-food tech VC firms](#) which is based on a more extensive database of [active agri-food tech investors](#).
- VC firms with a focus on agri-food and the Nordic-Baltic region include [Nordic Foodtech VC](#), [Martas Explorers](#) (SE), [BaltCap](#) (EE, LV, LT, FI, SE, PL), [ZGI Capital](#) (LV), [TGS Baltic](#) (EE, LV, LT), [Change Ventures](#) (EE), and [many more](#).
- For a further overview of the Baltic VC scene, see the [Baltic VCA Summit](#) and the national VC associations (e.g., [LTVCA](#), [LVCA](#), [ESTVCA](#)).
- Co-investment is often provided by state-owned public investment banks like [INVEGA](#) (LT) or [altum](#) (LV) usually backed by EU funds.

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<sup>30</sup> For a more general evaluation of VC's role in financing innovation, see Lerner, J. & Nanda, R. (2020): Venture Capital's Role in Financing Innovation: What We Know and How Much We Still Need to Learn, *Journal of Economic Perspectives*, 34:3, 237-61. Available under:

<https://www.aeaweb.org/articles?id=10.1257/jep.34.3.237> (last access 18.10.2023).

<sup>31</sup> Sippel, S., Dolinga, M. (2023): Constructing agri-food for finance: startups, venture capital and food future imaginaries, *Agriculture and Human Values*, 40, 475-488. Available under:

<https://link.springer.com/article/10.1007/s10460-022-10383-6> (last access 18.10.2023).



## Corporate Venture Capital

A specific form of VC is provided by established, large companies in the form of corporate venture capital (CVC).<sup>32</sup> CVC therefore is a type of venture capital investment made by established corporations in emerging startups that are seen as strategically relevant to the corporation's core business or long-term growth objectives. CVC is becoming [increasingly important](#) in agri-food tech.

- Examples for [CVC providers in agri-food tech](#) are [ADM Ventures](#), [Leaps by Bayer](#), [BASF Venture Capital](#), [FMC Ventures](#), and [Syngenta Group Ventures](#).
- But also major food corporations like [Danone](#), [Müller](#), [Dr. Oetker](#), [Nestlé](#) and [Unilever](#) have set up [corporate venture arms](#).
- [Orkla](#) has a specific focus on the Nordic and Baltic region.
- Other corporations, such as [Cargill](#), invest through third party investment funds.

## Business Angels

[Business angels](#) are typically high-net-worth individuals who invest their own capital in startups in exchange for equity or convertible debt and can be an important source of financing in the early stages of a company's development. Beyond financial support, business angels can offer strategic guidance, mentorship and access to their networks which can be critical to overcome the 'valley of death' and navigate the challenges of developing and commercialising innovative sustainable technologies.

- One of the key actors organising the private equity scene is the [Lithuanian Business Angels Network](#) (LitBAN) founded in 2018. Its website offers a direct [application portal for entrepreneurs](#) looking for financial and management support from business angels.
- Business angels in other countries in the region are similarly organised in networks at the national level, for example: the [Latvian Business Angels Network](#) (LatBAN), the [Estonian Business Angels Network](#) (EstBAN), or the [Finnish Business Angels Network](#) (FiBAN).
- On the European level, business angels are organised in the [European Business Angels Network](#) (EBAN) and [Business Angels Europe](#).

## Family offices

Family offices are entities that manage the wealth of wealthy families. Some family offices invest in startups and venture capital as part of their investment portfolio. Examples from the Baltic and Nordic regions include:

- Asset manager [INVL's family office arm](#) operates across the Baltic states.
- [VT Latvija](#) manages and invests family wealth in the Baltic states and Scandinavia.

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<sup>32</sup> See also Siota, J.; Alunni, A-; Riveros-Chacón, P.; Wilson, M. (2020): Corporate Venturing: Insights for European Leaders in Government, University and Industry. European Commission, Joint Research Centre, Publication Office of the European Union, Luxembourg. Available under: <https://publications.jrc.ec.europa.eu/repository/handle/JRC119084> (last access 17.02.2023).



## Debt financing

Debt financing in the form of loans, credit lines or – recently – quasi-equity is important for businesses that want to scale up their production, modernise and digitalise their structures, or bring new products to the market. **For the agri-food sector, debt financing is of heightened importance** due to its capital intensive nature, requiring significant investments in land, equipment, and infrastructure. Furthermore, different forms of debt financing cover needs for seasonal cash flow variability, scaling up and modernising operations, or just the day-to-day working capital.

According to recent survey results, financing demands of farmers are under-served by banks with the financing gap reaching €62 billion in 2022. For food-processing SMEs the gap amounted to €5.5 billion.<sup>33</sup> It is therefore all the more important to improve the matching of businesses and providers of financing.

Debt financing instruments in the agri-food sector are provided by commercial banks, usually with a traditional focus on agriculture, and more recently ‘neobanks’ and online-based investment platforms. Some examples include:

- Commercial banks like [Swedbank](#) (SE, LT, LV, EE) offer tailored financing solutions to farmers for, e.g., leasing agricultural machinery or purchasing land.
- So-called ‘neobanks’ – operating exclusively via online banking – recently emerged as viable contenders in business financing. An example from the Baltic region is [smeBank](#), which is also backed by Lithuania’s state investment agency INVEGA and the EIF (see also below on the role of the EU).
- Agricultural loans are also offered by platforms like [heavyfinance](#), where investors and farmers are matched.

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<sup>33</sup> See [https://agriculture.ec.europa.eu/news/access-finance-remains-insufficient-farmers-and-agri-food-smes-2023-10-12\\_en](https://agriculture.ec.europa.eu/news/access-finance-remains-insufficient-farmers-and-agri-food-smes-2023-10-12_en) (last access 17.10.2023).



## Business support services

Business support services, in a broad sense, for both startups and established SMEs are provided by a variety of actors – private, public, and everything in between.

- [EIT Food](#), co-funded by the EU, is **organizing a large community** of different stakeholders around the agri-food ecosystem and regularly collaborates with private investors to organise networking and [matchmaking events](#) with startups and young enterprises.
- **Clusters** like [AgriFood Lithuania](#) or [Smart Food Cluster Lithuania](#) (run by the Lithuanian food exporters organization [LitMEA](#)) support both startups and SMEs by organising the access to broader networks of research and innovation, supply chains, market opportunities, investment partners, and talented labour.
- Companies like [art21](#) from Lithuania offer **RDI solutions as a service** to actors in the agri-food ecosystem like farmers, agrifood companies and other stakeholders. Others, like [AgroSmart](#) and [Smart Agrometer](#), both also from Lithuania, provide new **digital management systems** for farming.
- Common **initiatives** like the Lithuanian [EDIHLT](#) (“Digital transformation of the industrial, agricultural and energy sectors in Lithuania”) bring together a large set of private and public actors to facilitate the modernisation of whole sectors.



## The role of EU support for private funding

The **European Union** provides a range of important instruments (see also Ch. 3) to finance innovation, expansion, and modernisation in startups and SMEs. Next to direct grants, loans or – most recently – [direct equity investment](#), a large part of EU funding is earmarked to back up and facilitate private investment.<sup>34</sup> The European Commission also acts to facilitate matching processes and provide information about [access to finance](#).

The [European Investment Bank \(EIB\)](#) is a key financing partner for [SMEs and Mid-caps](#) as well as for startups. The EIB supports businesses through [loans for on-lending](#) and partial [portfolio guarantees](#) to banks, advisory services with a broad range of assistance to urban and regional development. Mid-cap companies can receive [direct support for R&D investments](#). An adjacent line of financing is provided through [venture debt](#) for SMEs and Mid-caps developing highly innovative technologies, solutions or platforms. In July 2023, the EIB announced the first [€300 million tranche](#) for green and digital investment out of a €1 billion EIB commitment for investment across all Lithuanian regions.

The [European Investment Fund \(EIF\)](#) is the EU's provider of risk finance to small and medium-sized enterprises (SMEs). Its main shareholder is the EIB, accompanied by the European Commission, as well as a broad range of public and private banks and financial institutions. It [facilitates SMEs' access to finance](#) in cooperation with a wide range of financial intermediaries and backs up banks and guarantee institutions active in SME lending with [portfolio and counter-guarantees](#). In Lithuania, the EIF [guarantees](#) financing for SMEs through the Lithuanian SME Bank of up to €100 million.

The [European Agricultural Fund for Rural Development \(EAFRD\)](#) is a financing instrument of the [Common Agricultural Policy \(CAP\)](#) of the European Union offering loans, risk-sharing, guarantees and other financial schemes to support the financing of agri-food businesses.

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<sup>34</sup> See also [https://commission.europa.eu/business-economy-euro/growth-and-investment/financing-investment/financing-programmes-smes\\_en](https://commission.europa.eu/business-economy-euro/growth-and-investment/financing-investment/financing-programmes-smes_en) (last access 27.09.2023).



## Developing a Business Model Canvas

The Business Model Canvas (BMC) is a **strategic visualisation tool** for developing and displaying a business model. It helps to get a clear view of a company's operations and identify key business components. A BMC does not replace a formal business plan but provides a bird's-eye perspective on the business model that allows for further strategic development as well as easy understanding and communication.

It can provide the structure for the **collaboration** of different stakeholders and facilitate discussions and brainstorming sessions, allowing everyone to contribute their ideas and insights. At the same time, it is **flexible** enough to allow for an **iterative** process when rapidly developing and testing different business models. In its focus on creating and delivering **value** to customers, it is useful to both new ventures and existing businesses and can be applied to a wide range of business scenarios.

A typical BMC comprises the following sections as shown in Figure 10 below.

**Figure 10: Structure of a Business Model Canvas**

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
	Key Resources		Channels	
Cost Structure		Revenue Streams		

Source: Own elaboration by Prognos (2023).

Detailed **guides for constructing a BMC** can be obtained from the following sources:

- Strategyzer explains the structure and [building blocs](#) of the BMC.
- Indeed has a detailed [walkthrough](#) of what a BMC should contain and how it can be elaborated.
- **Templates** for a BMC can be found, for example, at [miro](#) or [canvanizer](#).

Further helpful **resources on scaling up**:

- **Tech Nation's** [guide](#) to scaling provides useful an abundance of checklists, tips, and explainers for businesses at the early, mid, and late stage.
- **'An Entrepreneur's Guide to Surviving the "Death Valley Curve"'** by Thomas Ritter and Carsten Lund Pedersen in the [Harvard Business Review](#).



## Bibliography

ECCP (2021): European Cluster Panorama Report 2021. Available under:

[https://clustercollaboration.eu/sites/default/files/2021-12/European\\_Cluster\\_Panorama\\_Report\\_0.pdf](https://clustercollaboration.eu/sites/default/files/2021-12/European_Cluster_Panorama_Report_0.pdf) (last accessed 13.10.2023).

EIB (2020): Financial needs in the agriculture and agri-food sectors in Lithuania. Available under:

[https://www.fi-compass.eu/sites/default/files/publications/financial\\_needs\\_agriculture\\_agrifood\\_sectors\\_Lithuania.pdf](https://www.fi-compass.eu/sites/default/files/publications/financial_needs_agriculture_agrifood_sectors_Lithuania.pdf) (last access 17.10.2023).

EIT Food (2022): EIT-Food Startup Guide Lithuania. Available under:

<https://www.eitfood.eu/files/EIT-Food-Lithuania-Start-up-Guide.pdf> (18.10.2023).

ENTSO-E (2023): Regional investment Plan 2022 - Baltic Sea. Available under:

<https://eepublicdownloads.blob.core.windows.net/public-cdn-container/tyndp-documents/TYNDP2022/public/RegIP-2022-BS.pdf> (last access 16.10.2023).

European Commission (2023): European Innovation Scoreboard 2023 Country profile

Lithuania. Available under: [https://ec.europa.eu/assets/rtd/eis/2023/ec\\_rtd\\_eis-country-profile-lt.pdf](https://ec.europa.eu/assets/rtd/eis/2023/ec_rtd_eis-country-profile-lt.pdf) (last accessed 13.10.2023).

European Commission (2013): The role of clusters in smart specialisation strategies. Available

under: <https://op.europa.eu/o/opportal-service/download-handler?identifier=2fe44194-e5a8-42b7-ac14-9c9b8e157de3&format=pdf&language=en&productionSystem=cellar&part=> (last access 20.09.2023).

European Commission (2021): Annual Single Market Report 2021: Available under

<https://op.europa.eu/en/publication-detail/-/publication/6355326c-ae95-11eb-9767-01aa75ed71a1/language-en> (last access 21.02.2022).

European Parliament (2022): Taking the EU's 'farm to fork' strategy forward.

[https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_ATA%282021%29690622](https://www.europarl.europa.eu/thinktank/en/document/EPRS_ATA%282021%29690622) (last access 17.10.2023)

FAO (2013): Food Security and Agricultural Mitigation in Developing Countries: Options for

Capturing Synergies. Available under: <http://www.fao.org/3/i1318e/i1318e00.pdf> (last access 17.10.2023)

Kaur, R., & Kaur, S. (2022): Sustainable agricultural practices for food security and ecosystem services in the face of climate change. *Environmental Science and Pollution Research International*, 29(5), 5563–5577. Available under:

<https://doi.org/10.1007/s11356-022-23635-z> (last access 18.10.2023).

Leahy, S., Clark, H., & Reisinger, A. (2020): Challenges and Prospects for Agricultural

Greenhouse Gas Mitigation Pathways Consistent With the Paris Agreement. *Frontiers in Sustainable Food Systems*, 4. <https://doi.org/10.3389/fsufs.2020.00069> (last access 18.10.2023).

Lerner, J. & Nanda, R. (2020): Venture Capital's Role in Financing Innovation: What We Know and How Much We Still Need to Learn, *Journal of Economic Perspectives*, 34:3, 237-61.



Available under: <https://www.aeaweb.org/articles?id=10.1257/jep.34.3.237> (last access 18.10.2023).

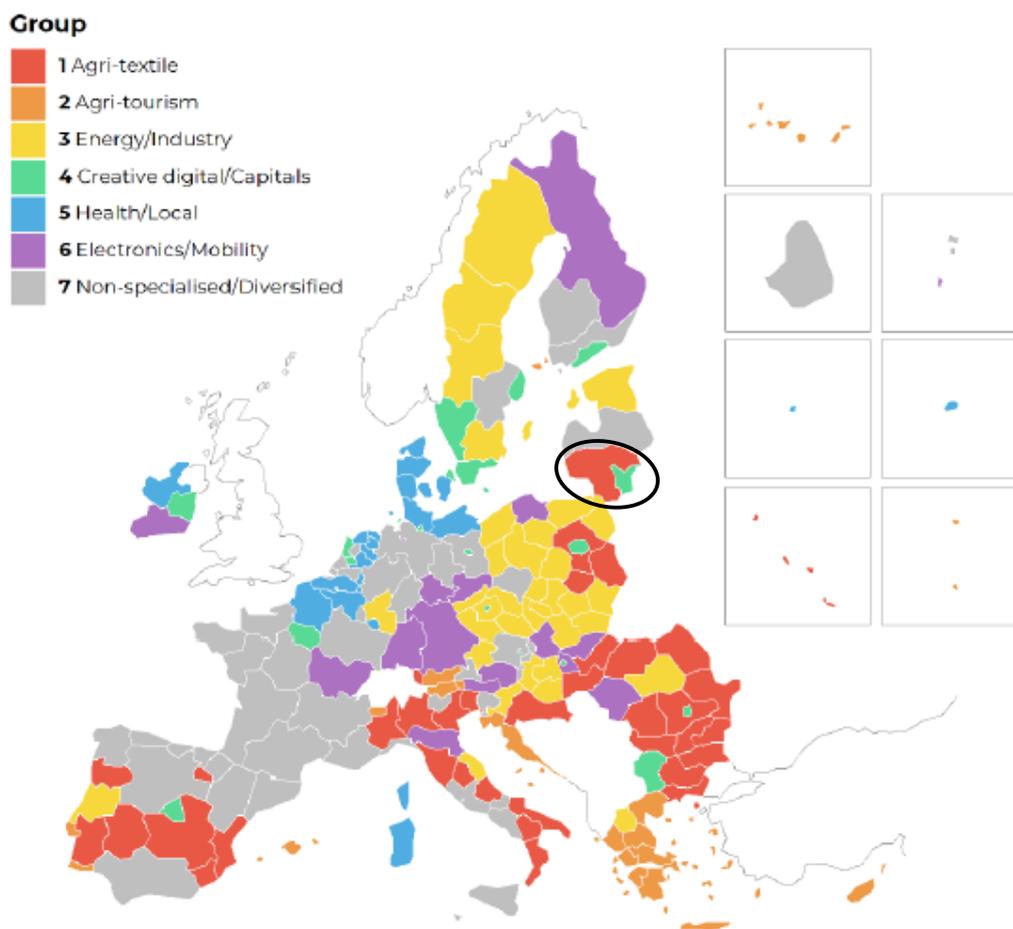
Siota, J.; Alunni, A.; Riveros-Chacón, P.; Wilson, M. (2020): Corporate Venturing: Insights for European Leaders in Government, University and Industry. European Commission, Joint Research Centre, Publication Office of the European Union, Luxembourg. Available under: <https://publications.jrc.ec.europa.eu/repository/handle/JRC119084> (last access 18.10.2023).

Sippel, S., Dolinga, M. (2023): Constructing agri-food for finance: startups, venture capital and food future imaginaries, *Agriculture and Human Values*, 40, 475-488. Available under: <https://link.springer.com/article/10.1007/s10460-022-10383-6> (last access 18.10.2023).



## Annex

**Figure 11: Regional typology based on industrial ecosystem specialisations**



Source: European Cluster Panorama Report (2021).

**Table 1: Overview of Lithuanian cluster organisations registered on the ECCP and their addressed EU industrial ecosystem**

N°	Cluster organisation	Industrial Ecosystem
1	AgriFood Lithuania DIH	Agri-food
2	Association of Lithuanian Printing Industries	Creative & Cultural Industries
3	Baltic Automotive Components Cluster (BACC)	Mobility-Transport-Automotive
4	Baltic Film & Creative Tech Cluster	Creative & Cultural Industries
5	BCCS (Blockchain Cybersecurity and Compliance Solutions) Cluster	Digital
6	Business Hive Vilnius Cluster	Digital
7	Cleantech Cluster Lithuania	Renewable Energy
8	Cluster of Manufacturing Innovators - CoMI	Digital
9	Digital Rocket LT	Digital
10	Food Technologies Digitalization LT	Agri-food



11	Health technology cluster iVita	Health
12	Information Technologies in Medicine (MedIT)	Health
13	Laser and Engineering Technologies Cluster (LITEK)	Electronics
14	LAuGEA cluster (Lithuanian Automotive Export Association)	Mobility-Transport-Automotive
15	Life Sciences Digital Innovation Hub	Health
16	Lithuanian Apparel and Textile Industry Association	Textiles
17	Lithuanian Laser Association	Electronics
18	Lithuanian Medical Tourism Cluster	Tourism
19	Lithuanian Photovoltaic Technology Cluster	Renewable Energy
20	Lithuanian Plastics Cluster	Energy Intensive Industries
21	Lithuanian Prefabricated Wooden House Cluster - PrefabLT	Construction
22	Lithuanian Social Innovation Cluster (LSIC)	Creative & Cultural Industries
23	Lithuanian Space Association (LSA)	Aerospace & Defence
24	Maritime cluster	Energy Intensive Industries
25	National Food Cluster Lithuania	Agri-food
26	Smart Digital Solutions cluster	Digital
27	SMART food cluster	Agri-food
28	Toolas	Energy Intensive Industries

Source: ECCP (2023) and own adaptations.