ORGANIC TARGETS 4EU

Transformation scenarios for boosting organic farming and organic aquaculture towards the Farm-to-Fork targets

Deliverable D5.2

Analysis of barriers of conversion and recommendations for strengthening organic advisory services and capacity building

DOCUMENT/REPORT/PUBLIC

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Abbreviations

AI – artificial intelligence
AKIS – Agricultural Knowledge and Innovation System
AAC – Aquacultural Advisory Council
AUTH – Aristotle University of Thessaloniki
AT - Austria
BÖLW – Bund Ökologische Lebensmittelwirtschaft
CAP – Common Agricultural Policy
CoP – Communities of practice
CICHEAM – International Centre for Advanced Mediterranean Agronomic Studies
DBV – Deutscher Bauernverband
DE – Germany
DK – Denmark
ECA – European Court of Auditors
ELGO DIMITRA – Hellenic Agricultural Organisation
EQIP-OI – Environmental Quality Incentives Program Organic Initiative
EU – European Union
FAO – Food and Agriculture Organisation
FADN – Farm Accountancy Data Network
FCR – Feed Conversion Ratio
FiBL – Forschungsinstitut für biologischen Landbau
FNAB – Federation National d'Agriculture Biologque
FR – France
Ha – hectares
HAPO – Hellenic Aquaculture Producers Association
HMCR – Hellenic Centre for Marine Research
HVE – High Environmental Value
HNT – Hegyközségek Nemzeti Tanácsa
HU – Hungary
ICOEL – Innovationscenter for Økologisk Landbrug
IT – information technology
INAO – Institut national de l'origine et de la qualitéderogations?
INRAE –Institut national de recherche pour l'agriculture, l'alimentation et l'environnement
IT – Italy
ITAB – Institut de l'agriculture et de l'alimentation biologque
LKNO – Landwirtschaftskammer Niederösterreich
LLH – Landesamt für Landwirtschaft Hessen
LCA – La Cooperation Agricole
MA – Market Authorisation
MADR – Ministry of Agriculture and Rural Development [Romania]
MoA – Memorandum of Agreement
ÖPUL – Österreichisches Programm zur Förderung einer umweltgerechten Landwirtschaft
ÖMKi – Ökologiai Mezőgazdasági Kutatóintézet (Research Institute of Organic Agriculture, Hungary)
PDO – Protected designation of origin
PGI – Protected geographical indications
QS – Quality systems
RO - Romania

TI – Thünen-Institut
TV – Television
TÜV – Technischer Überwachungsverein
US – United States of America
USH – Spiru Haret University
VAT – Value added tax

Executive Summary

This report, developed as part of the OrganicTargets4EU project, provides a comprehensive analysis of the barriers to conversion to organic farming and outlines strategic recommendations to enhance organic advisory services and capacity building across the European Union. Combining insights from stakeholder workshops, interviews, and detailed case studies, the study examines the multifaceted challenges faced by farmers during the transition from conventional to organic practices.

The central objective of the study is to understand the obstacles that hinder organic conversion and to develop strategies that support both new and existing organic farmers. Recognising that conversion is not merely a technical shift but a transformative process encompassing economic, environmental, and social dimensions, the report stresses the need for robust advisory services to guide farmers through these changes. To capture the complexity of the conversion journey, the study gathered a mix of quantitative data and qualitative insights through direct engagement with stakeholders in diverse European contexts.

Organic sector development context

We present an overview of organic sector trends across the EU and in eight focus countries (Austria, Denmark, France, Germany, Greece, Italy, Hungary, and Romania). The approach in this section involved analysing statistical data, policy documents, and market reports to paint a detailed picture of organic land area trends, market performance, and policy influences. This quantitative analysis was complemented by a review of national agricultural statistics and insights from international sources, which together provided a backdrop against which the conversion barriers could be understood. The varied trends—ranging from rapid expansion in some countries to declines in others—underscore the importance of context-specific strategies and the influence of external economic pressures, such as food price inflation and shifting policy landscapes.

Barriers to conversion and maintenance of organic agriculture and aquaculture

This section is dedicated to examining the practical barriers to conversion and the factors affecting the sustainability of organic practices. The approach here was distinctly qualitative. The study employed a series of structured and semi-structured methods to engage with the farming community.

- **Workshops and communities of practice (CoP):** In several focus countries, project partners organised workshops to establish CoP groups, which served as a forum for farmers to discuss their experiences, share challenges, and identify potential solutions. For example, in eastern Lower Austria, a group of arable farmers already in the conversion process was convened to discuss technical and economic challenges, supplemented by open interviews with young organic farmers who had recently made the transition.
- **Farmer and advisor interviews:** Where recruitment of conventional farmers was challenging—such as in Germany and France—the study turned to interviews with conversion advisors and farmers who were either contemplating or had already embarked on the conversion journey. In Denmark, the research leveraged the

established service of conversion checks, where advisors conduct detailed on-farm evaluations. Interviews with these advisors provided insights into common concerns, such as economic viability, technical challenges like weed management and livestock housing, and the complexities of regulatory compliance.

- **Case studies across diverse sectors and pilot initiatives:** The study also includes sector-specific approaches, such as the investigation of organic aquaculture in Greece and peri-urban garden initiatives in Italy. Each case study was designed to capture the unique technical, market, and policy challenges pertinent to its production system. These in-depth examinations allowed the research to draw parallels and distinctions between the diverse pathways to organic conversion. Examples of pilot initiatives illustrate good practices and challenges. In Denmark, for instance, the conversion check service—a government-funded initiative—provided rich data on farmers' concerns and the effectiveness of personalised advisory interventions. Romanian and German examples highlight the potential of regional and peer-to-peer approaches.

This chapter identified recurring barriers—such as high conversion costs, technical difficulties, and administrative burdens—while also highlighting how these challenges vary by region and production type. By combining data from group discussions, individual interviews, and case-specific observations, the chapter presents a nuanced understanding of the multifaceted conversion process.

Strengthening organic advisory services

This section focuses on the current state and future potential of organic advisory services, which are pivotal in addressing the barriers outlined in the previous chapter.

- **Mapping existing advisory networks:** The study assessed the landscape of advisory services across the focus countries through a combination of document reviews and interviews with key stakeholders. This mapping exercise identified both the strengths and gaps within the current advisory frameworks, revealing a wide variability in the availability and quality of advisors and information support provided to organic farmers.
- **Future-proofing advisory systems**: Based on the qualitative and quantitative data collected, the report proposes a future vision for organic advisory services that emphasises digital innovation, enhanced mentorship programmes, and closer integration with financial and policy support mechanisms. The methodology here was iterative, involving feedback loops with advisory practitioners to ensure that the recommendations are both practical and forward-looking.

The approach in this chapter reflects a holistic synthesis of the multi-layered data collected throughout the study, ensuring that the recommendations are grounded in real-world challenges and opportunities.

Conclusions and recommendations

The insights gathered from the study are synthesised and offer a set of strategic recommendations aimed at overcoming the barriers to organic conversion and at improving advisory services for organic farmers. The conclusions are drawn from an analysis of both the qualitative narratives from workshops and interviews and the quantitative trends observed across the EU, leading to some key recommendations structured in four sections.

- Tackle technical, economic, and regulatory obstacles for farmers considering conversion or maintaining organic agriculture through enhanced advisory support, market and supply chain measures and streamlined bureaucracy.
- Strengthen advisory service systems for organic by expanding to emerging themes, invest in advisors training and accreditation, leverage digital tools, and align advisory services with regional development.
- Initiate and expand advisory services in regions lacking organic advisory support by establishing new services, integrating advisory support into broader development plans, and creating organic knowledge hubs to facilitate access to best practices and expert guidance.
- Secure sustainable funding mechanisms by ensuring continuous funding, foster public-private partnerships, increase accessibility and affordability of advice, embed organic topics in education, and invest in digital infrastructure.

In conclusion, this report presents a detailed, methodologically robust analysis of the barriers to organic farming conversion and the role of advisory services in facilitating this transition. Through a combination of statistical analysis, qualitative interviews, and case studies, the study reveals that overcoming these barriers requires an integrated approach addressing economic, technical, and administrative challenges. The detailed methodological approach—ranging from CoP workshops to sector-specific case studies—ensures that the findings are both comprehensive and contextually relevant. The recommendations offer a clear roadmap for policymakers, advisory bodies, and industry stakeholders to foster a more supportive environment for organic farming, ultimately contributing to the long-term sustainability and growth of the organic sector across the EU.

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1 Introduction

To reach the target of 25% organic land area in the EU (or respective targets in national contexts) requires many more farmers to convert to organic farming. It is therefore important to understand the barriers farmers encounter in going organic and what can encourage them to undertake this step. Building on the outcomes of Nagy et al., 2023, this report, as part of the OrganicTargets4EU project, aims to analyse these barriers of conversion and provide policy and strategic recommendations for strengthening organic advisory services and capacity building to support both new and existing organic farmers.

To gain **first-hand insights** into the conversion barriers and the state of organic advisory services, the Practice Partners of the project arranged workshops in the focus countries in 2023 and 2024 to engage with key stakeholders. **Farmer workshops** were organised to establish communities of practice (CoP), where farmers discussed their experiences and barriers with conversion, identified technical, policy and business-related barriers, and explored solutions. In cases where direct farmer engagement was not feasible, interviews were conducted with farmers, conversion advisors, and industry experts. **Advisory workshops** were held in most focus countries to bring together advisory service providers, other knowledge providers, organic farmer organisations (incl. agriculture and aquaculture) and policymakers to assess the strengths and weaknesses of existing advisory services for organic farming and explore ways to strengthen advisory systems. The report also includes the review of existing literature, policy frameworks, and statistical data to provide a comprehensive understanding of trends and challenges of the organic sector and recommendations for strengthening advisory services.

An overview of the **organic sector's development** in the EU and in the focus countries in **Chapter 2** highlights trends in organic land area and market developments and policy frameworks influencing organic sector growth. For several of the focus countries this indicated that to reach the target, it is not only important to convert more farms to organic but also to encourage those that are farming organically to stay in organic farming. The chapter helps to understand how regional differences in organic conversion rates and the external factors affect farmers' decisions to transition to or remain in organic farming.

Chapter 3 presents an in-depth analysis in specifically examining the **key barriers to organic conversion** and maintaining organic farming, drawing on case studies from the CoPs covering different agricultural sectors and regions with the report from Greece focus examining organic aquaculture. These groups provided valuable perspectives on the technical, economic, and regulatory challenges to conversion, and on market dynamics and consumer demand uncertainties.

Chapter 4 focuses on the role of **organic advisory services**, evaluating their current state in the focus countries and proposing improvements for the future. It outlines desirable elements of a well-functioning organic advisory system by 2030 and explores possible funding mechanisms to enhance advisory support. The distinct challenges and characteristics of organic aquaculture based on Greece are summarised in a separate sub-chapter (4.4).

Conclusions and recommendations in Chapter 5 summarise key findings and suggest strategies to strengthen organic advisory services and capacity building at European, national, and regional levels.

2 Organic sector development context in the EU and selected focus countries

When this project was planned and initiated, the organic sector in Europe had experienced a period of relatively stable and consistent growth, stimulated also by increased demand in the context of the pandemic. However, the food price increases resulting from the Ukraine conflict impacted demand for organic food in some countries, influencing also farmers' willingness to convert. This was particularly the case in countries with high domestic consumption of organic products, such as Austria, Germany, Denmark, France, and Sweden. In total ten European Union (EU) Member States (MS) saw a reduction in organic land area in 2023, including project focus countries Austria, France, and Hungary (Table 2.1). However, other countries experienced different trends, with rapid growth in Bulgaria, Ireland, Portugal, Poland, Spain, and Greece, which is a focus country for aquaculture. As a result, the overall growth rate at the EU level remains consistent with the long-term exponential growth trend of a doubling in the organic land area every ten years (Figure 2.1), potentially reaching the EU target of 25% by 2035.

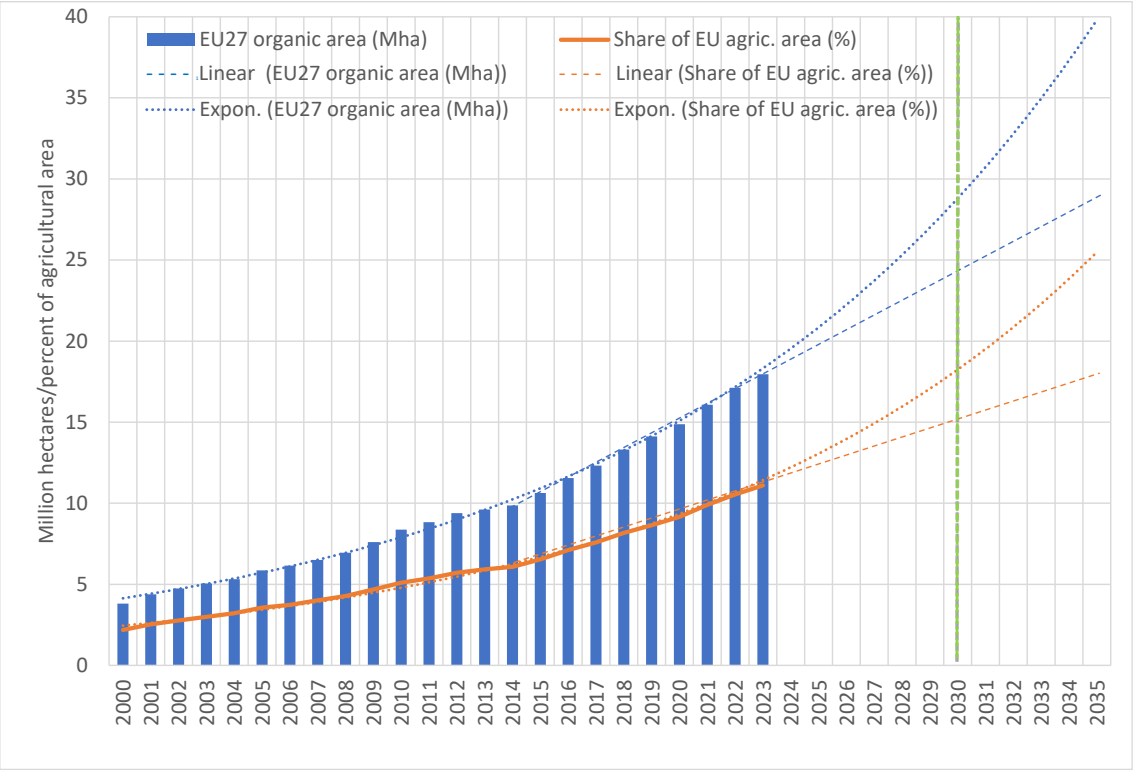

Figure 2.1: Development of EU organic land area and share of total agricultural area from 2000 to 2023, with linear and exponential projections to 2035

Sources: FiBL Statistics, Eurostat, own projections

Table 2.1: Development of organic land area and share of total agricultural area in EU Member states, 2022 and 2023

Country (Focus countries bold)	Organic land area (ha) 2022	Share of total agric. area (%)	Organic land area (ha) 2023	Share of total agric. area (%)	Change from 2022 to 2023 (ha)	Change from 2022 to 2023 (%)
Austria	705,835	27.52	701,161	27.34	-4,674	-0.7
Belgium	103,437	7.57	102,359	7.49	-1,078	-1.0
Bulgaria	110,441	2.19	147,798	2.93	37,357	33.8
Croatia	129,374	8.59	119,873	7.96	-9,501	-7.3
Cyprus	7,749	5.72	10,470	7.72	2,721	35.1
Czechia	562,394	15.96	595,189	16.89	32,795	5.8
Denmark	300,057	11.43	303,430	11.55	3,373	1.1
Estonia	231,011	23.44	225,256	22.86	-5,755	-2.5
Finland	339,460	14.95	311,498	13.72	-27,962	-8.2
France	2,876,052	9.95	2,767,447	9.58	-108,605	-3.8
Germany	1,859,842	11.16	1,888,999	11.33	29,157	1.6
Greece	924,853	17.56	1,140,510	21.65	215,657	23.3
Hungary	320,517	6.41	320,251	6.41	-266	-0.1
Ireland	95,701	2.12	178,653	3.96	82,952	86.7
Italy	2,349,880	17.91	2,455,586	18.71	105,706	4.5
Latvia	312,820	15.89	297,111	15.09	-15,709	-5.0
Lithuania	265,364	9.02	249,121	8.47	-16,243	-6.1
Luxembourg	8,255	6.25	8,262	6.25	7	0.1
Malta	66.41	0.62	66.41	0.62	0	0.0
Netherlands	80,086	4.41	87,416	4.82	7,330	9.2
Poland	554,632	3.81	636,021	4.37	81,389	14.7
Portugal	759,977	19.15	860,878	21.69	100,901	13.3
Romania	644,520	4.74	693,998	5.11	49,478	7.7
Slovakia	253,156	13.25	261,059	13.67	7,904	3.1
Slovenia	53,202	10.99	54,603	11.28	1,401	2.6
Spain	2,675,331	10.95	2,991,881	12.24	316,550	11.8
Sweden	597,204	19.87	549,941	18.30	-47,263	-7.9
EU27	17,121,217	10.55	17,958,840	11.07	837,623	4.9

Sources: FiBL Statistics, Eurostat, Greece Ministry of Agriculture

Since 2000, the EU organic market has tripled every 10 years, growing at a faster rate than production. The recent development of the organic market has been impacted by both the pandemic, which led to an above average increase in retail sales value in 2020, and the food price inflation resulting from the Ukraine conflict, which resulted in negative growth in 2022. Growth has restarted in 2023, and there is anecdotal evidence of faster growth rates in 2024. It remains to be seen if a polynomial growth projection as illustrated can be sustained.

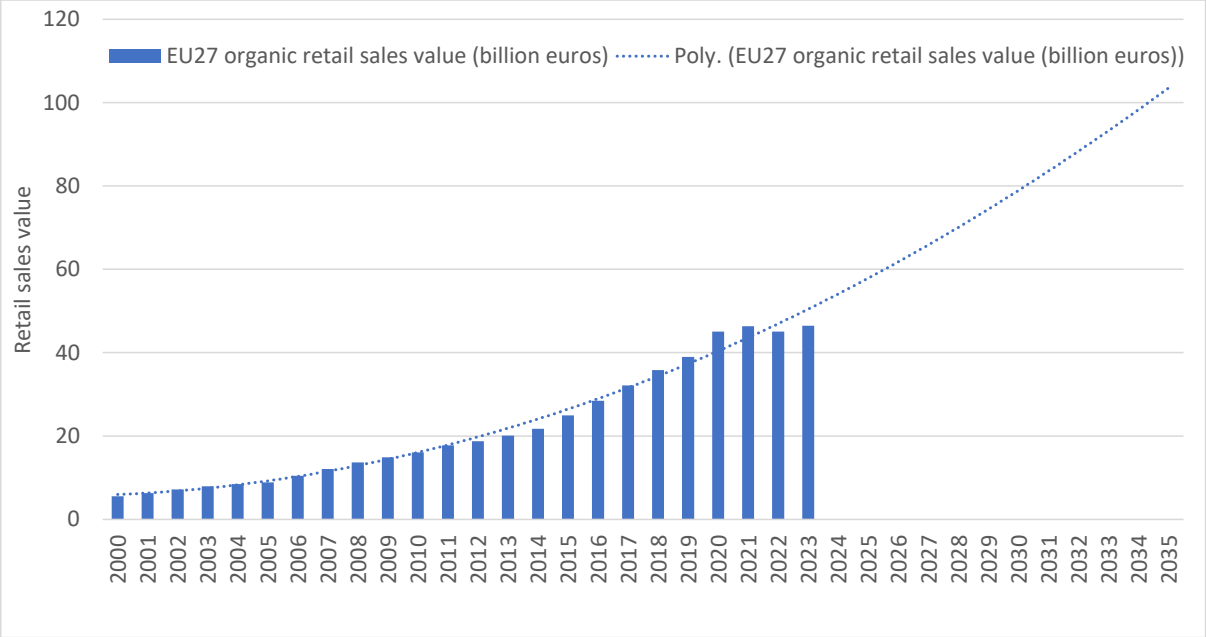

Figure 2.2: Development of EU organic food market (retail sales value), 2000 to 2023

Source: FiBL Statistics (EU total values are estimated, as current values are not available for all countries)

2.1 Austria

Austria has the highest share of agricultural land under organic production of any EU Member State, reaching 27.5% on more than 23% of farms in 2022. As Figure 2.3 shows, growth halted, and the organic area fell slightly in 2023, following a period of reduced growth rates from 2017.

Austria experienced a dynamic development in organically managed arable land between 2015 and 2022. This can be partly attributed to high differences between organic and conventional producer prices (Fischl 2024 pers. comm.) and is also linked to drought conditions and poor sugar beet harvests leading to poor financial returns on conventional arable farms.

In 2022, the programming period of the Austrian agri-environmental programme ÖPUL2015 ended. In 2023 a new environmental programme (ÖPUL23) was introduced, with lower support payments and increased obligations for organic farmers. Also, the Organic Regulation (Reg. EU 2018/848) brought in a strong focus on the provision of pasture for herbivores. Some livestock producers with dairy and/or beef production left organic because of the lack of convenient pastures in reasonable distance to their farms. Especially the western regions of Austria lost organic grassland and organic farms. In the federal state Salzburg, the amount of organic grassland decreased by 5% in 2023[1].

[1] https://gruenerbericht.at/cm4/, various years

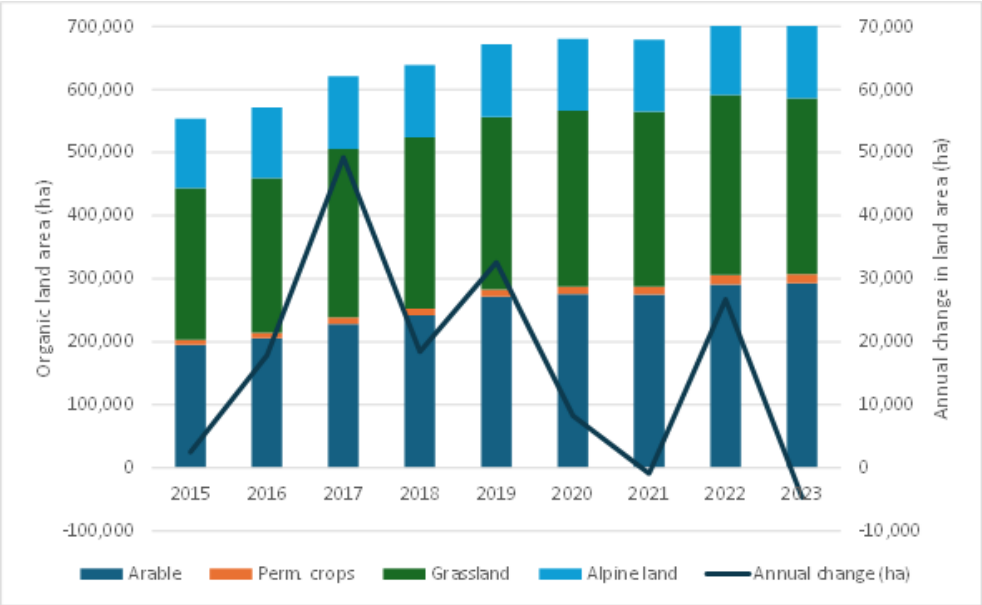

Figure 2.3: Development of organic land area and annual changes in Austria, 2015 to 2023

Source: FiBL Statistics, Eurostat, own compilation

Although growth slowed during the period of high food price inflation, the Austrian market for organic products has continued to grow, reaching €2.7 billion in 2023 (Willer et al., 2025), up 6.5 % compared with 2022 and up 38.4 % compared with 2019 before the pandemic.

The combination of the new environmental programme, tighter regulations, and lower producer prices for organic crops since 2023 provided insufficient incentive for conventional farmers to convert (Figure 2.4). Austria at present faces many organic crop farmers thinking about reconverting to conventional.

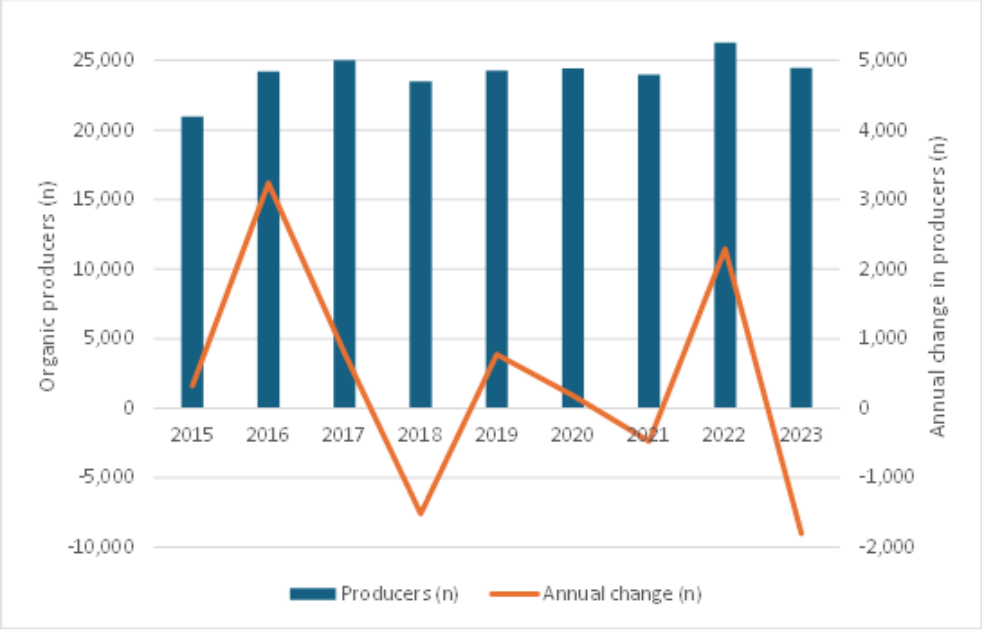

Figure 2.4: Development of number of organic producers and annual changes, Austria 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

2.2 Denmark

Denmark has experienced a slight reduction in total organic area in the last few years (Figure 2.5) with growth rates declining since 2019 and turning negative in 2023. New conversions fail to compensate for the organic farmland reconverted to conventional.

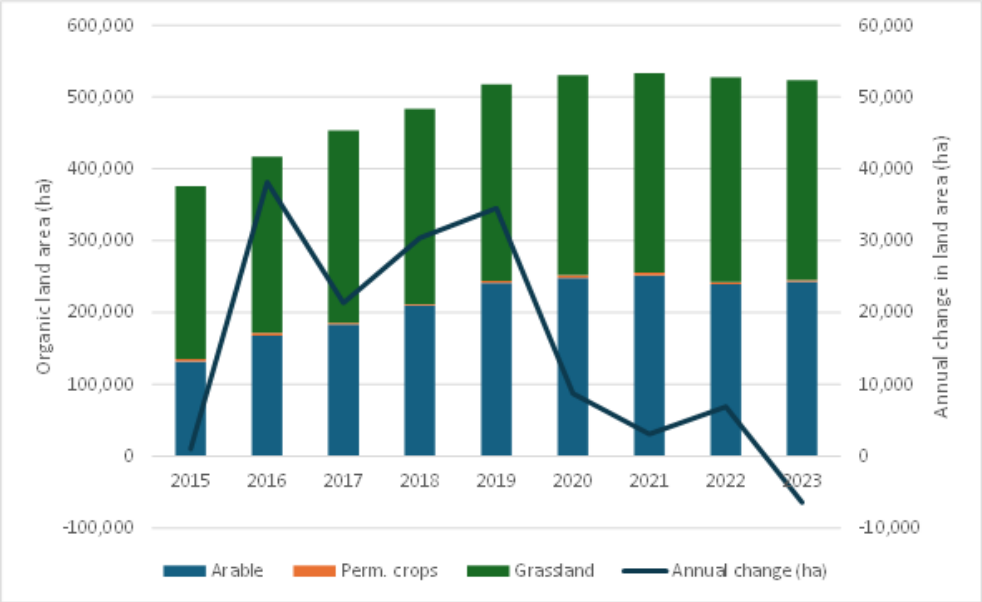

Figure 2.5: Development of organic land area and annual changes in Denmark, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

In 2023, the organic area was 303,563 ha (11.4% of the total agricultural area), of which 277,179 ha was fully converted. Approximately 163,000 ha are forage (both temporary (included in arable land in Figure 2.5) and permanent grassland) and 140,000 ha are for other arable crops, like cereals, oilseed, potatoes, legumes, grass seed, etc. No big changes in the crop distribution have been registered in the last few years. In the past 10 years spring cereals have comprised about 75% of the cereal area. For winter cereals, winter rye has dominated. The yield gap for winter cereals between organic and conventional is a bit higher than for spring cereals, especially wheat, since this crop requires high doses of nitrogen, which often is not available as organic manure.

In the national statistics, the number of organic farms is declining, but the percentage is not, meaning that the number of conventional farms is declining even faster. The last two years have seen a slight negative growth in the number of organic farms (Figure 2.6).

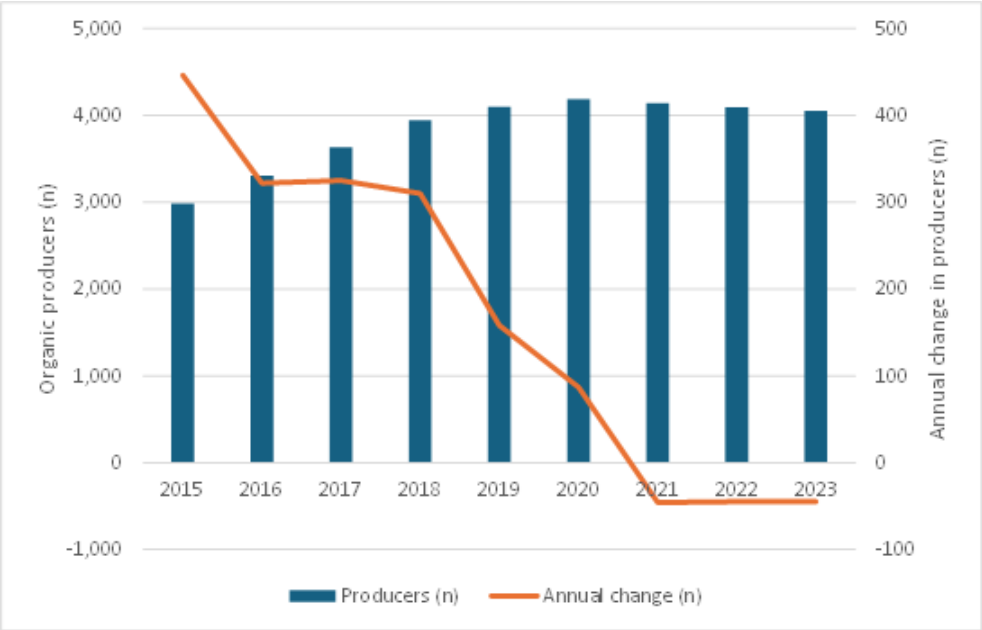

Figure 2.6: Development of number of organic producers and annual changes, in Denmark from 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

One reason for this development is that the sales of organic products have been decreasing, especially of the more processed products. Retail sales value for the Danish organic market peaked at €2.24 billion in 2020, falling to 2.16 billion in 2023 (Willer et al., 2025), which may be attributable to the impact of food price inflation. The 2023 value was still 8.9% higher than in 2019 before the pandemic, but this is lower than for many other countries and the EU average.

At the same time the organic sector in Denmark has adopted a specific national regulation which restricts the use of conventional manure in organic arable production. Especially in the cereal and crop production areas, organic farmers have experienced these restrictions as constraining their development. In general, land prices have gone up, caused by government policy to create more forest and solar energy, making the future of agriculture riskier as costs for borrowing are rising.

2.3 France

Organic and in-conversion land area represented 2.8 million ha or 10.4% of the national agricultural area in 2023[2]. Between 2022 and 2023, France lost almost 54,200 ha (2%) under organic management (Figure 2.7). Rates of conversion have been falling since 2021, and existing organic producers have stopped farming large areas (primarily forage or field crops).

This has resulted, for the first time ever, in a decrease in the organic sector, with the number of organic livestock farmers also falling (Figure 2.8). New organic farmers farm mainly on small areas (< 10 ha)[3]. Small farmers, often from the non-agricultural sector or part-time

[2] https://www.agencebio.org/observatoire-de-la-production-bio-nationale/
[3] https://www.agencebio.org/wp-content/uploads/2024/09/AB-PRESSE-2023-210x297-JUILLET-BAG.pdf "Les chiffres du BIO Panorama 2023".

farmers, appear to be more optimistic, willing to take the risk, being less dependent on the farming income. They express the need for action to prevent further deterioration of biodiversity and quality of ground and surface water.

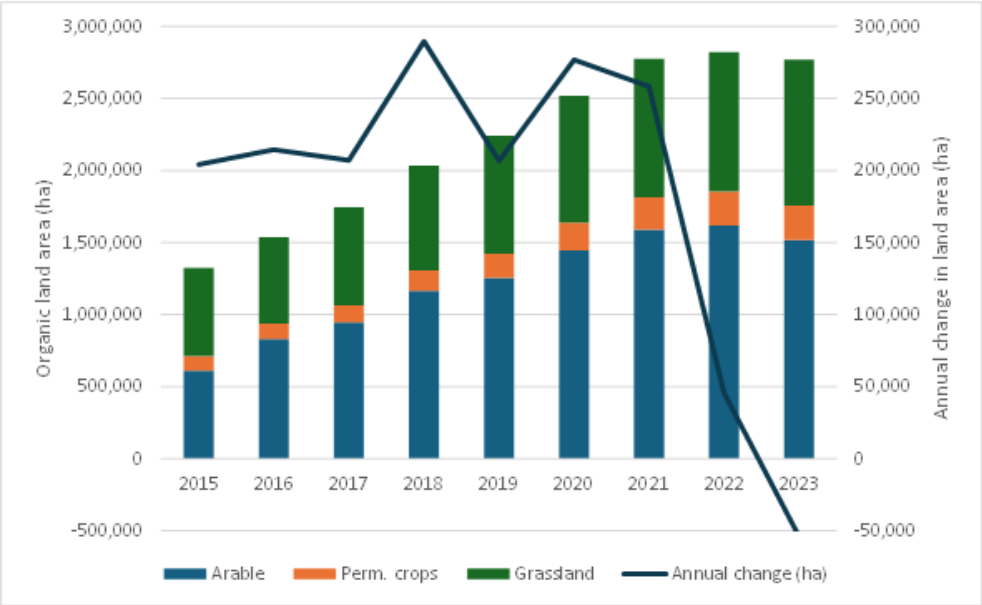

Figure 2.7: Development of organic land area and annual changes in France, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

One possible explanation is likely to be a fall in demand—sales of organic products have been decreasing due to food price inflation. The retail sales value of organic food products peaked at €12.8 billion in 2020, falling to €12.1 billion in 2022, and stabilising at the same level in 2023 (Willer et al., 2025). Similar to Denmark, 2023 sales were 7% higher than in 2019 before the pandemic, but below the EU average increase over that period.

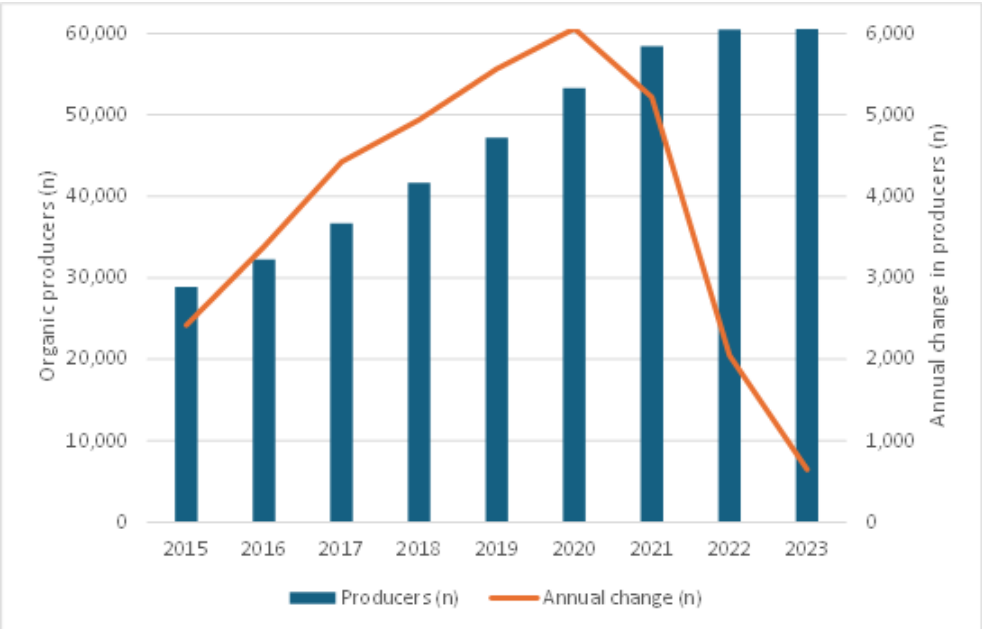

Figure 2.8: Development of number of organic producers and annual changes, France 2015-2023

Sources: FiBL Statistics, Eurostat, own compilation

In 2023, total household spending on food in France (excluding inflation) fell by 4.7 % to €180 billion; a greater contraction than in 2022, when it fell by 3.6%. The proportion of this expenditure allocated to organic food fell from 6 to 5.6%. An increase in organic prices (+7.7%) and a drop in volumes (-7.7%) impacted the organic market at the same time.[4]

Demand for organic food declined especially in the non-specialised shops. General supermarket distribution (accounting for 51% of organic outlets) saw a decline in value by 3.8% compared to 2022. One indicator of concern is that the proportion of organic products in supermarkets, which had historically democratised organic produce, has fallen sharply and remains stagnant. This decrease in the number of organic products listed by supermarkets further accelerated the decline. There is also concern about competition with other initiatives, such as regenerative agriculture or High Environmental Value (HVE) farming, which are less demanding than organic but contribute to create uncertainty and doubt for consumers. A lot of organic actors are still hoping but underline the real difficulties.

2.4 Germany

In 2023, the organic area in Germany grew by 4.3% to 1.9 million ha (Figure 2.9), 11.8% of the total agricultural area. However, the rate of growth in land area has been declining since 2016, and at a faster rate since 2021.

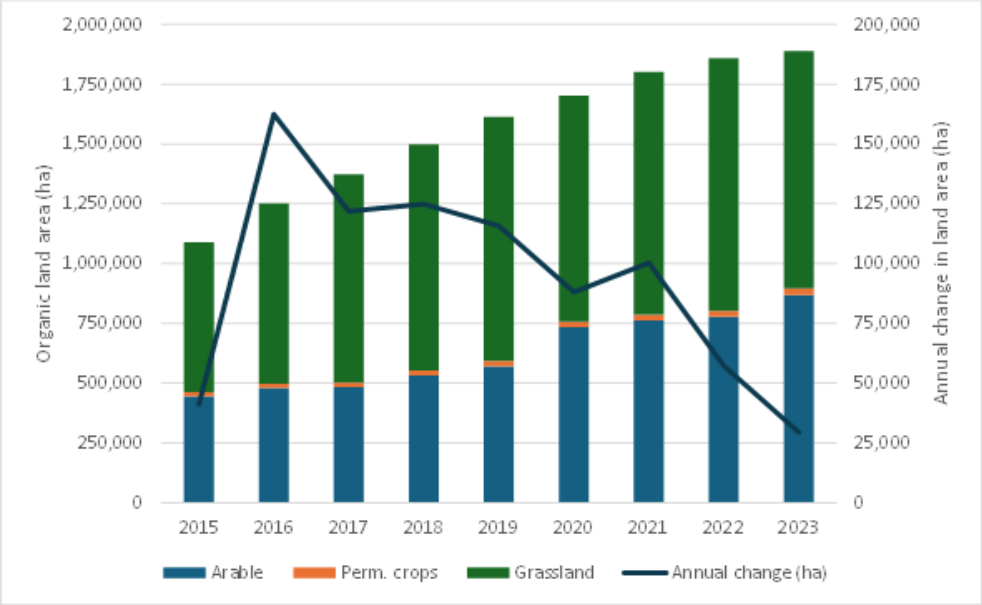

Figure 2.9: Development of organic land area and annual changes in Germany, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

[4] https://www.agencebio.org/wp-content/uploads/2024/06/Livret-chiffres-BIO-2023-PRESSE-2023-210x297-.pdf, based on data from INSEE

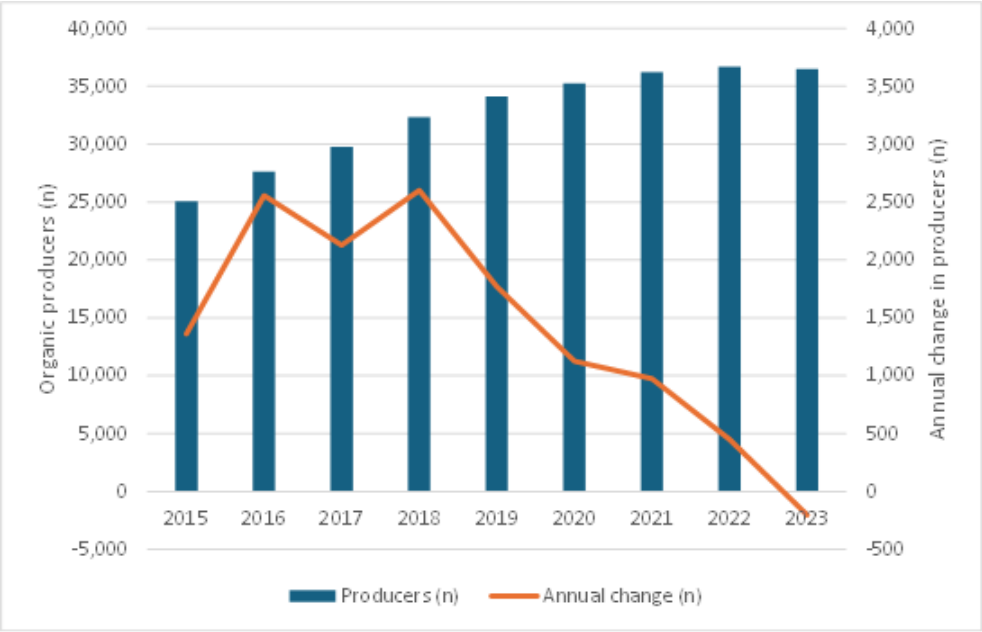

Figure 2.10: Development of number of organic producers and annual changes, Germany 2015 to 23

Sources: FiBL Statistics, Eurostat, own compilation

In 2023, 36,536 holdings or 14.3% of all farms were organic (Figure 2.10). The number of producers has followed a similar reducing growth rate to the area, becoming negative in 2023 when numbers leaving the sector exceeded numbers converting. Despite these negative trends, the number of organic farms is still 4.3% higher than in the agricultural census in 2020, while the total number of farms in Germany has fallen. Lower prices and low support and recognition are cited as reasons for the decline (BÖLW, 2024), with organic organisations calling for higher prices for harmful inputs, increased support payments, and reduced bureaucracy. The German Bauernverband (DBV) (Dienel, 2023) also observed reduced interest in conversion, down from 20% of farmers in 2022 to 10% of farmers in 2023. This was the lowest value recorded since 2014, at the start of the previous CAP programming period.

The market for organic food has grown steadily in Germany, reaching €16 billion retail sales value in 2023, 34% higher than before the pandemic in 2019 (Willer et al., 2025). However, the market declined for the first time ever in 2022, in response to food price inflation following the Ukraine conflict, contributing to the loss of confidence that led to the number of producers declining in 2023. The retail sales value of the German organic market, however, recovered further, and has grown by a further 5.7% in 2024[5].

2.5 Greece

The Greek reports are unique as in this country activities of the project focused on aquaculture producers. The organic aquacultural sector in Greece produced 1,574 tonnes of European seabass and Gilthead seabream in 2020, an increase of 119% compared to production in 2015 (EUMOFA, 2022). However, in 2023 organic finfish production dropped to approximately 800 tonnes (HAPO, 2024). Most organic fin fish grown in Greece are targeted for exports to other

[5] https://www.boelw.de/news/die-bio-branche-2025/.

EU and/or non-EU countries. Reasons for this downward trend are assumed to include the increased costs of living as consumers reduce consumption of necessities in a way that organic fish is considered a luxury. Also, interest in converting to organic aquaculture has been low. The decision to close-down the only organic larvae hatchery in Greece seems to be in line with the decreasing trend of organic aquaculture production documented during recent years.

Most aquaculture producers that attempt organic are attracted to European Organic labels like Naturland or TÜV Hellas,[6] since they believe that a certified product has many advantages for both consumers and producers. By following the EU standards, it is easier to remove any doubts that the consumer might have compared to all other labels and schemes.

The situation for aquaculture is in sharp contrast to the rapid development of organic farmland in Greece in recent years (Figure 2.11), reaching 1.14 million ha in 2023, 21.7% of total agricultural area. These high growth rates are expected to have continued in 2024. The number of organic producers in Greece has also expanded rapidly (Figure 2.12), nearly tripling in two years to reach 86,892 in 2023.

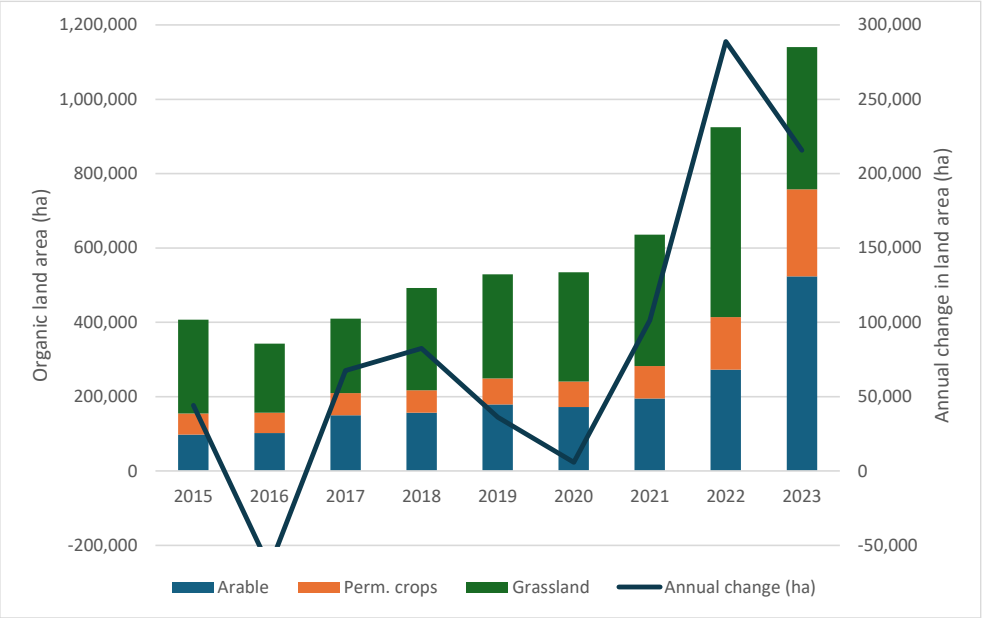

Figure 2.11: Development of organic land area and annual changes in Greece, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

[6] Carries out organic certification according to the EU regulations. TÜV Hellas is a member of the TÜV Nord group; see https://www.tuv-nord.com/gr/en/certification/organic-products/organic-products-in-eu/.

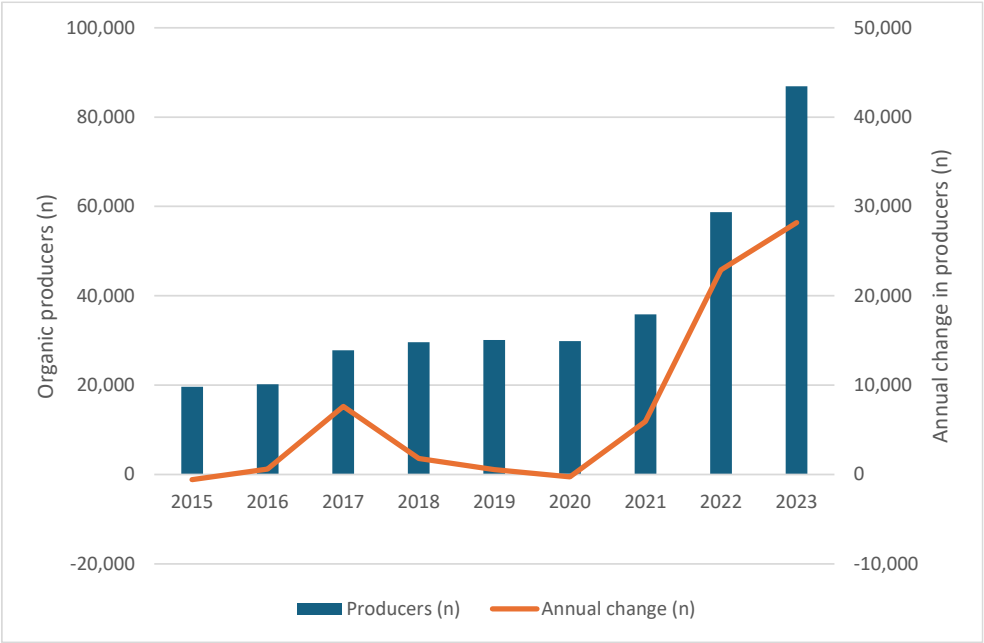

Figure 2.12: Development of number of organic producers and annual changes, Greece 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

There is no recent market data available for Greece, but it is likely that changes in policy support have been a major influence on this development, with Greece having the largest share of CAP environmental expenditure (50%) dedicated to organic farming (Lampkin et al., 2024).

2.6 Italy

In contrast to the trends in France and Germany, Italy experienced increasing growth rates between 2019 and 2022, after reduced growth rates in 2016 and 2017 (Figure 2.13). Support payments for organic agriculture have contributed to the increase in land area and the number of organic producers (Figure 2.14), which have followed similar trends to the area growth. The decrease in growth rates in 2023 may be more attributable to uncertainties over new CAP policies than to a response to food price inflation.

Other public support, such as for research in organic farming and informational, promotional initiatives, has also been also made available by the Ministry of Agriculture, Regional Authorities, the Ministry of Education, and through National Organic Action Plans. Organic conversion trends have been regularly analysed in relation to the diverse, and over time changing, regional strategies for CAP implementation in the various programming cycles (eligibility criteria, payment levels by crop, priority mechanisms, possibility to cumulate organic with other measures, level of support for competing measures) as well as to discontinuities in support availability.

Qualitative research on organic decertification (conducted through focus groups, KIIs, and online farm survey) highlights, with different nuances, the role of general and sector-specific technical issues. Organic practitioners struggle for instance with difficulties in pest control, limited access to or limited knowledge about organic inputs, poor access to competent organic advice, low farm profitability, market difficulties (e.g., price premium for organic products). Together with administrative issues in CAP support delivery for organic farming and the paperwork burden associated with organic certification, these challenges push

producers to turn towards less bureaucratic agroecological practices and measures (Arzeni et al. 2021).

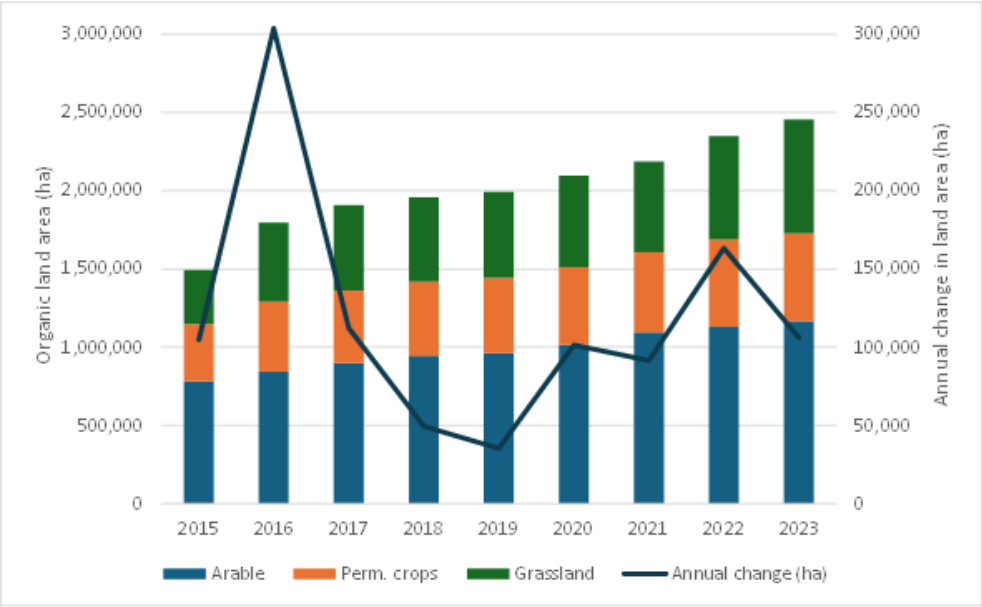

Figure 2.13: Development of organic land area and annual changes in Italy, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

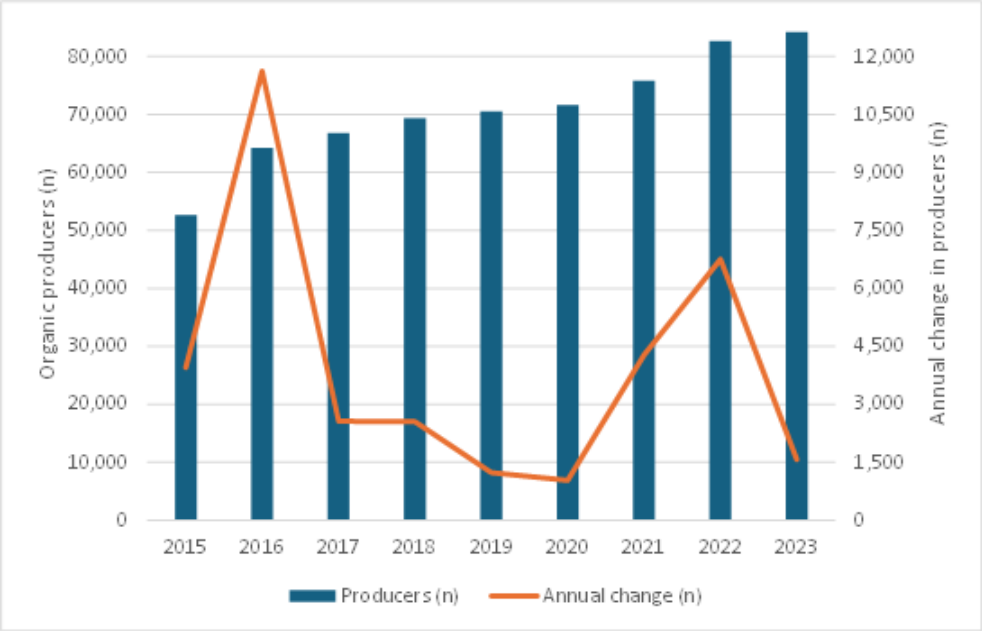

Figure 2.14: Development of number of organic producers and annual changes, Italy 2015 to 2023

Source: FiBL Statistics, Eurostat, own compilation

The market for organic products in Italy has also continued to grow, with retail sales value increasing to €3.9 billion in 2023, 6.1% higher than in 2022 and 20.1% higher than in 2019 before the pandemic (Willer et al., 2025). Italy is also a significant exporter of organic products, the value of which is not included in these figures, and which may have been more impacted by the slowdown in consumption elsewhere.

With reference to the present CAP programming cycle, Frascarelli (2024) raised some key points. National organic statistics (updated up to Dec 2023) report continuous growth in terms of the number of operators and extension of land area (to 19.8% of total UAA, with some regions close or beyond 25%). Some encouraging signs have also been observed for the organic market after past years of stagnation. Funds are available through the Italian National CAP Strategic Plan to support conversion to and maintenance of organic farming (with differences at the regional level) as well as to further structure and consolidate organic value chains. CAP support measures will not be enough to guarantee a sustainable future to the national organic sector. Actions are envisaged in the National Organic Action Plan to boost organic consumption. Better prices and higher profitability will be also crucial factors.

2.7 Hungary

In Hungary, conversion to organic farming is largely encouraged by the CAP-funded organic conversion and maintenance schemes. The payments are typically for five years, but in the last funding period, a three-year scheme for the period 1 January 2022 to 31 December 2024 was announced, ending at the same time as the previous programme (1 January 2019 to 31 December 2024). The development of organic farming has been affected by discontinuities in availability of support, which can clearly be seen from the spikes in growth at 2-3-year intervals (Figure 2.15). By 2022, the certified organic area reached 320 thousand ha, 6.4% of total agricultural area, declining slightly in 2023. Similar trends can be seen for the growth in producer numbers, with growth spikes linked to discontinuities in support (Figure 2.16).

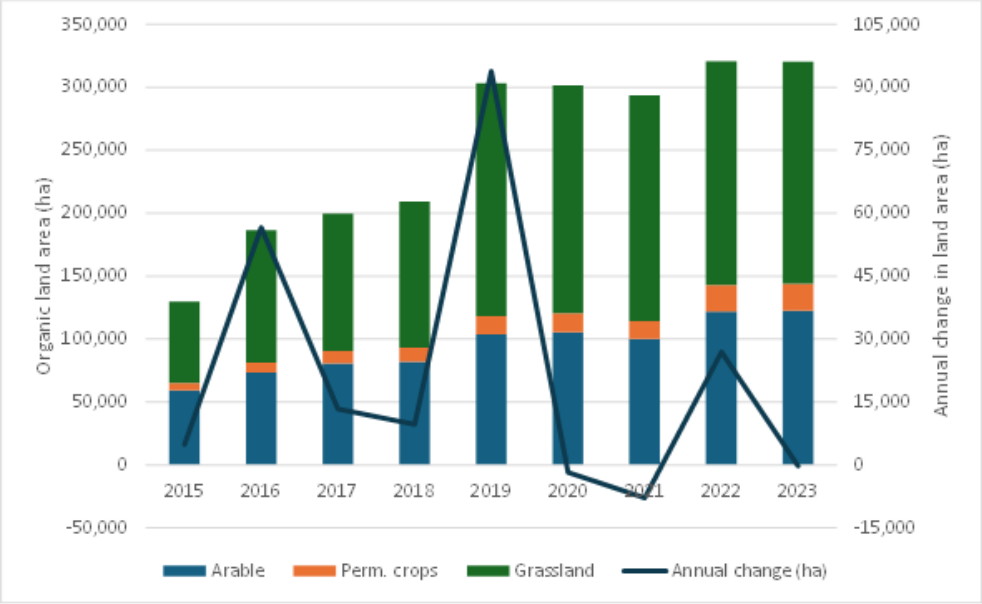

Figure 2.15: Development of organic land area and annual changes in Hungary, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

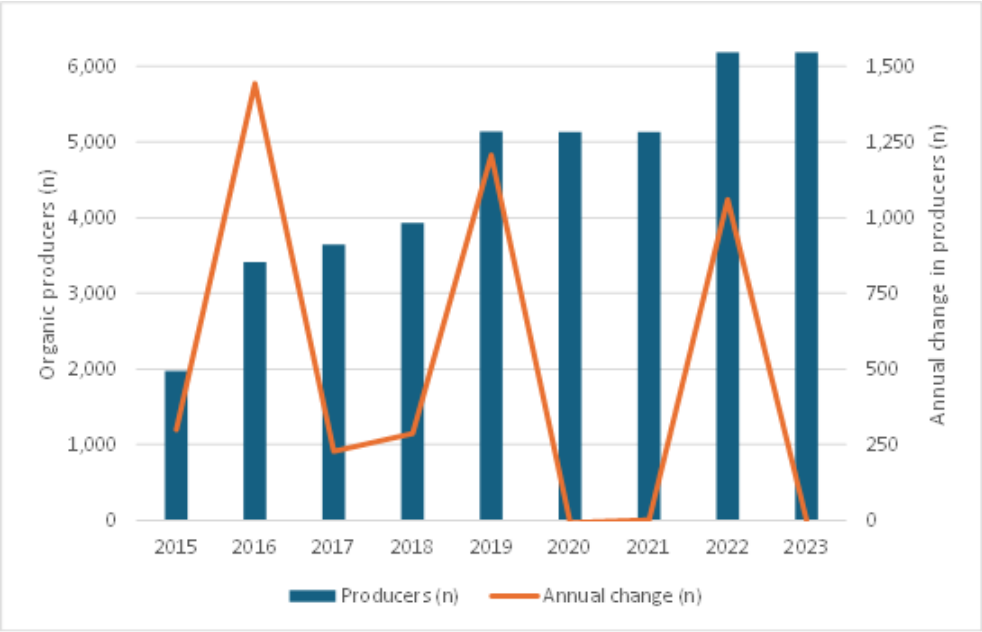

Figure 2.16: Development of number of organic producers and annual changes, Hungary 2015 to 23

Sources: FiBL Statistics, Eurostat, own compilation

Recent data on the organic market in Hungary has been collected as supplementary information for another project and is currently pending approval for external use. Like in Greece, a significant proportion of organic production is exported (Lenz and Neumann, 2022).

2.8 Romania

Organic farming in Romania has seen significant growth in recent years, in particular due to available support payments and export markets. Areas that are certified organic or in conversion reached 694,000 ha in 2023, 5.1% of the total agricultural land. While growth rates increased steadily to 2021, following a period of decline, there has been some slowing down more recently (Figure 2.17). The largest organic areas are found in the Tulcea, Constanta, and Timiș counties, but clusters of farmers can be found in all development regions of Romania.

In 2023, Romania had about 14,000 certified organic producers (Figure 2.18)[7]. Following a period of significant decline up to 2017, growth rates have steadily recovered. The development of organic farming in Romania was closely linked to the availability of support. Despite the recent progress, Romania has one of the smallest organic land area shares in the EU. There is a certain pessimistic perception about the future benefits of organic farming among farmers.

There is no recent market data available for Romania. The organic sector is reliant on exports to a significant extent.[8]

[7] https://www.agroberichtenbuitenland.nl/actueel/nieuws/2024/09/11/organic-farming-on-an-upward-trend-in-romania.

[8] The-Market-of-Organic-Agri-Food-Products.pdf; http://www.ekoconnect.org/tl_files/eko/p/Projekte/MOE-Laenderberichte/Country-Report-Organic-ROMANIA-EkoConnect-2022.pdf.

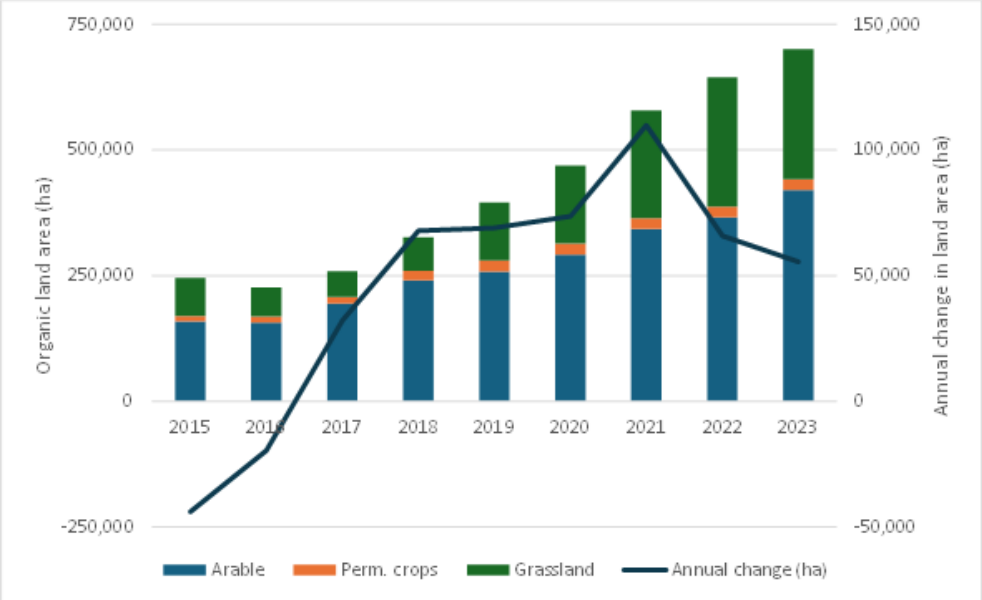

Figure 2.17: Development of organic land area and annual changes in Romania, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

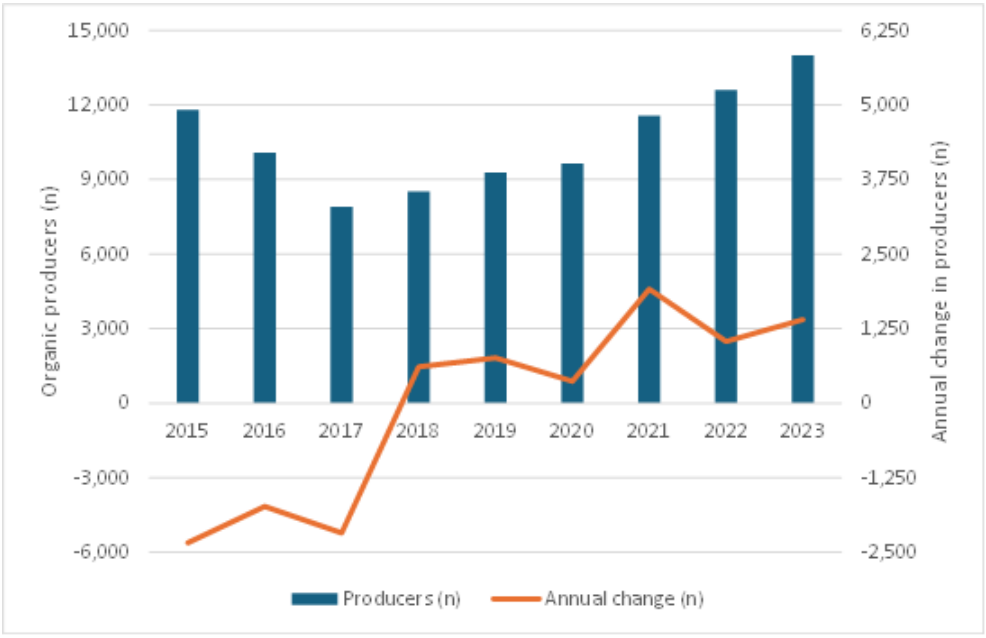

Figure 2.18: Development of number of organic producers and annual changes in Romania, 2015 to 2023

Sources: FiBL Statistics, Eurostat, own compilation

3 Barriers to conversion and maintaining organic farming and organic aquaculture

3.1 Introduction

Reaching the target of 25% organic land area in the EU (or respective targets in a national context) requires many more farmers to convert to organic farming. It is therefore important to understand what can encourage farmers to undertake this step and go organic. It "will require a focus on creating traction for the values, beliefs, worldviews, and paradigms that effectively support such transformation while decreasing the friction that works against them," as was stated by Day and Cramer (2022) in relation to regenerative agriculture but similarly applying to organic conversion. "A focus on technical aspects alone is likely to hinder a more systems-oriented of solutions seeking that are necessary to meet the new ecological challenges agriculture faces" (Day and Cramer, 2022; p. 586). Social and financial considerations, including personal and family wellbeing and longer-term perspectives, are also likely to be important.

The national context in several of the focus countries of this project (see Chapter 2) has indicated that to reach the target, it is critical not only to convert more farms to organic but also to encourage those that are farming organically to stay organic. Kuhnert et al. (2013) also pointed out that for future growth of the organic sector it is imperative to limit the number of farms that exit organic as much as possible. Their study of farms exiting the organic sector found no single decisive reason, rather a set of personal, farm-specific, and external factors was considered important, similar to those impacting on conversion (Kuhnert et al., 2013).

The organic aquaculture sector is small compared to other agricultural sectors with few but dedicated actors who support each other. Although far fewer studies have revised factors affecting organic aquaculture, it is likely that similar barriers or obstacles apply (Reinecke et al., 2024). Given the nature of this sector, market factors are likely to play a dominant role.

3.1.1 Background on the factors affecting converting to and staying organic

The conversion (or transition) process from conventional to organic farming systems is for most farms a period of substantial change. It is subject to several physical, financial, and social influences, which differ by farm, region, production system, country, and, most importantly, by person. The magnitude of change occurring for farmer and farm, the difficulties associated with the necessary changes and the length of time required will vary depending on the intensity of conventional management and the condition of the farm before conversion, the extent to which new enterprises and marketing activities are introduced, and any yield and financial penalties related specifically to the conversion process (based on Lampkin et al., 2023).

Studies of the conversion process have shown that the availability of support payments, environmental concerns, the relative profitability of organic compared to conventional, and uncertainties about the stability of the organic market are recurring as influential factors in the decision-making process of becoming organic (Home et al., 2019). Less frequently mentioned, but also important, are factors referring to the social dimension, which Mills even describes as missing (Mills, 2023).

Doorman (1991), cited after Stephenson (Stephenson et al., 2022), divides factors that influence the adoption of new technology on farms into personal, situational, and external. Mills et al. presented a framework considering farmer engagement, willingness, and ability to adopt environmentally friendly practices (Mills et al., 2017). In a study of farmers' perspectives of the conversion to organic in the United States, Stephenson combined these perspectives to assess barriers to conversion according to the spheres of influence, i.e., who can address a specific obstacle. Barriers or obstacles occur at the farm level, in the local or regional infrastructure, in the marketplace, and at institutional or administrative levels (Stephenson et al., 2022). A similar distinction between internal and external factors determining the individual decision-making was also used in an integrative literature review with a focus on 53 articles that included one or more of the determinants (Karipidis and Karypidou, 2021).

Studies of organic conversion have also shown that the process happens in different stages, from getting to know about it, until reaching a new, more stable system under organic management (see Figure 3.1). Change may happen in direct response to so called "trigger events" (Sutherland et al., 2012). How long the period of conversion takes depends on the farmer, farm staff, and the farm. Also, the empirical evidence of various scholars suggests that each pathway of going organic can be different (Padel, Levidow and Pearce, 2020; Weinberg, 2023). It is likely that farmers need different types of support to overcome obstacles in these different stages, which should be considered when developing support policies.

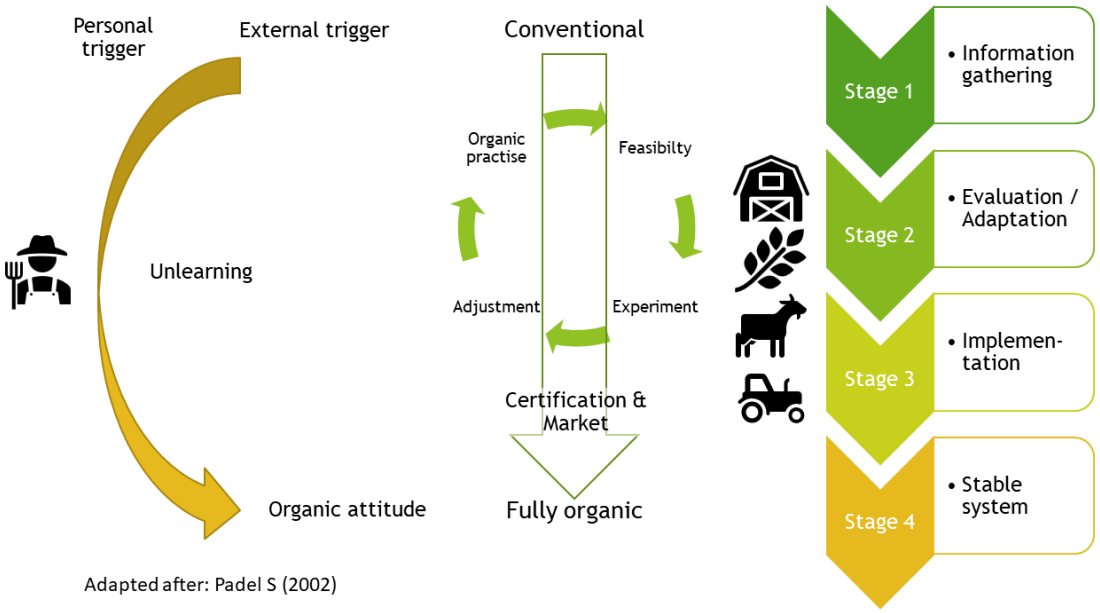

Figure 3.1: Stages of the conversion process

Source: Authors adapted after Padel (2002)

In this chapter, we continue with a brief overview of the approach in each focus country. The following reports from each focus country section set out the national context including recent changes and the context for the respective production sector if relevant. This information complements information presented about the focus countries in *Deliverable 1.3 Synthesis of*

key drivers and lock-ins for organic sector development[9] and in the factsheets of the focus countries.[10] The next section presents highlights of the results in each country as was summarised by the national teams. The final section of this chapter discusses the observations from the national reports by themes and in the context of some recent reviews on the subject and presents some conclusions.

3.1.2 Approach to study factors impacting organic conversion by producers in the focus countries

A frequently mentioned factor in support of organic conversion is a supportive social network (Lindemann, 2021). Communities of practice (CoP) are social learning groups of people who share a concern and deepen their expertise in a topic by interacting on an ongoing basis. The task reported here aimed to initiate and observe eight Communities of Practice (CoP) with specific sectors in the focus countries, in which conventional farmers or aquaculture producers could jointly learn together about organic production and conversion. Observing these group learning processes should deepen the knowledge about barriers to conversion from the farmers' point of view and contribute to developing suggestions on how these might be overcome, in a qualitative approach.

For each country, a specific approach was agreed. The production sectors for each country were chosen based on the priorities and good working contacts of the national partners and in alignment with other project activities (see Table 3.1).

At the start of 2023, when the communities of practice were due to be set up, the market for organic products was impacted by food price inflation resulting from the Russian invasion of Ukraine. This unsettled producers in countries with developed organic markets, resulting in a substantial decrease in willingness to consider conversion, and in some cases such as France and Austria, many producers reverted to conventional production. It was therefore not possible to achieve the original objective of establishing CoP groups with 5-10 conventional producers who are considering conversion to organic in all focus countries. It also became clear that factors impacting on the decision to stay organic or reverting to conventional production were also relevant to consider when forming these groups.

In some countries (Austria, Hungary, Greece, Italy, Romania), it was possible to hold one or several meetings with a small number of producers, in some cases including producers who had already started their organic conversion. Project partners in two focus countries (Germany, France) struggled to recruit any conventional farmers interested in conversion and in becoming members of such communities of practice. Other means of data collection were agreed, such as interviews with advisors and with farmers. For Denmark, a different approach had been agreed because of the availability of unique knowledge source relevant to the question. Denmark had offered conversion check by advisors to farmers interested in conversion for several years, so the interview process began with these advisors to better understand obstacles and barriers to conversion.

[9] https://organictargets.eu/deliverables/.
[10] https://organictargets.eu/factsheets/.

Table 3.1 summarises the production sector and the number of farmers taking part in meetings and other data collection approaches that were used. All group meetings and interviews were reported individually by the project partners, who also submitted the national reports presented in this section.

The analysis focused on contrasting the findings from different contexts and production sectors in a qualitative way. We categorised obstacles noted in the observed groups and activities in the focus countries into farm-level, local and regional infrastructure, marketplace and administrative and policy issues, based on the framework used by Stephenson et al. (2017), extended by other obstacles from the observations of farmers' and advisors in the focus countries.

Table 3.1: Summary of the production sectors and approach in the focus countries

	AT	HU	GR	IT	RO	DE	DK	FR
Sector	Arable	Viti-culture	Aqua-culture	Peri-urban gardens	Arable /grass	various	various	Fruit and vine
No of group meetings	1	2	2	6	1	0	0	0
Farmers involved	3	9	3	9	9			
of which certified	3	1	3	n/a				
Farmer interviews	7		3		8	1		4
Advisor/expert interviews					9	8	4	5

Because of the small numbers of farmers from various sectors involved and differences in the approach in each country, the results can highlight issues of concern in a qualitative way, like in a comparative case study approach, but cannot be generalised for all producers in a specific region or a specific sector.

Details of the approach for focus countries with meetings with producers

Project partners contacted organisations that could support them in the recruitment of farmers from a specific sector (Austria, Hungary, Italy, Romania, Greece) and organised first meetings to identify the obstacles to conversion reported by farmers. The meetings were supported by a facilitator, and outcomes reported to the task leader. In Hungary and Italy, other meetings followed.

The Austrian group was formed by arable farmers, who were already in the conversion process, because no farmers prior to conversion willing to take part could be identified. This was followed by seven open interviews with recently converted young arable farmers about their experiences in the transitioning period.

The Hungarian group consisted of nine wine producers with interests in agroecological and organic methods from the Balatonfüred-szőlős wine region. Several of them also have a family-run winery, some also tourism activities. Only one farm is certified organic. The group held three meetings, complemented by one expert interview.

The Italian CoP initiative has been established in an urban setting, revolving around the idea of restoring and maintaining historical urban gardens area through organic farming and other sustainable practices. The group used the existing initiative of the Bio Solequo cooperative that promotes also indigenous vegetable varieties, in collaboration with Slow Food Puglia. Group members are nine garden plot-holders, and six meetings were held using different formats.

In Romania, the CoP consisted of nine cereal farmers of the BioDanube cluster of InterBio. The first meeting was followed by interviews with farmers at various events. This was complemented by some observations at relevant national meetings, such as agricultural fairs, meetings at cluster levels and in innovation hubs, and seminars of the Romanian network for rural development.

The Greek CoP was the only group of four aquaculture producers. It included one representative of a family farm growing trout in fresh water and three representatives from larger farms producing finfish in marine waters, such as the European sea bass, the gilthead seabream, and the great amberjack. The initial meeting was held online, followed by visits to the participating farmers with interviews and concluding discussions at the national WP5 workshop.

Details of the approach for focus countries using only other data collection

In Denmark, conversion check visits by advisors (see Box 3-1 in section 3.2) have been offered free of charge to farmers interested in organic through a government funded programme. This gave the possibility to identify concerns of larger numbers of farmers arose through interviews with four advisors that had carried out those checks and to analyse some statistics of the conversion checks.

In Germany and France, the interest in organic conversion was negatively affected by market stagnation and, particularly in France, uncertainty about future policy support, so it was not possible to recruit producers to participate in CoPs. Partners therefore also followed the approach of interviews with advisors who had been providing first advice to farmers interested in conversion and complemented this with farmer interviews as possible. In France, the advisors interviewed were working with organic fruit production. In addition, two wine growers that are considering conversion were interviewed.

In Germany, the advisors interviewed were in direct contact with farmers from the point of initial consideration to conversion and beyond. Several further attempts to identify farmers interested in organic conversion were made; one farmer interview is included in the national results.

3.2 Arable farmers in the east of Lower Austria

3.2.1 Details of the approach

The Community of Practice (CoP) consisted of three farmers who transitioned to organic in 2022. It was not possible to recruit conventional arable farmers due to a lack of interest in converting to organic in 2023. One meeting was held with these farmers. They were mainly growing arable crops, on farms between 50 and 80 ha in size. One farmer was also engaged

with on-farm processing and direct sales, whereas the other two sold all via wholesalers or retailers.

In this workshop, concerns, challenges, motivating factors, and necessary support in the transitioning process were discussed. Participants saw no need for a second group meeting (see also Table in Annex I). Additionally, seven open interviews with young organic arable farmers, i.e., farmers, who converted to organic between 2016 and 2021, were carried out about their experiences in the transitioning period.

3.2.2 Results

Results from the workshop

For the participants of the workshop, the main motivating factors to start with the transitioning process were higher producer prices for organic products and higher public funding, followed by no more handling of toxic pesticides. Other reasons fostering the decision for transitioning to organic were the existence of organic field neighbours, personal interest, and the demand of consumers.

As a motivating factor, one farmer mentioned that he was impressed by what neighbouring organic farmers were able to produce (in terms of quality and quantity), which motivated him to convert as well. Another farmer mentioned neighbour farmers who already converted to organic say that they wouldn't want to go back to conventional as motivating.

The main concern appeared to be the fear of higher weed pressure. Other concerns were necessary investments in new machinery, the amount of paperwork, and the additional amount of work for mechanical weeding.

Another farmer said that at first he thought that the amount of field work would be much higher in organic farming but then he sat down and really thought about it: "and when you count the fertilisation and pest control in conventional production, that alone means six runs through the fields." To underline the need of higher public funding for small organic farms one farmer said: "Organic production with high ecological benefits has to be sufficiently remunerated."

As challenges that already had appeared in their conversion period, or that possibly may appear, were mentioned: Timing and handling of mechanical weed control, the lack of experience in organic cultivation methods, higher pressure of damaging insects and the lack of suitable pesticides, economic deficits during the conversion period (possible higher costs, but not yet higher producer prices).

The participants of the workshop agreed that especially higher public funding for organic and for smaller farms would foster transitioning to organic. They also saw a need for cheaper, affordable, modern mechanical weed control machinery and more robust or resistant cultivars.

Results of interviews with recently converted arable farmers

The main outcomes of the additional interviews with "young organic farmers" are summarised in Table 3.2.

Table 3.2: Main outcomes of interviews with young organic farmers

What challenges did you have to face at the beginning of the conversion process?
• Gathering information about organic conversion was very time-consuming • Parents / Partner / family had to be convinced • Business calculation was challenging
What were the main problems you had to deal with during the conversion period?
• Necessary records for certification were challenging • Regulation of *Cirsium arvense* (creeping thistle) was a huge problem • Practical skills in mechanical weed control were lacking • Necessary investments in tillage technology that fit organic were quite pricey • Inadequate knowledge of preceding crop effects (especially possible effects on weed abundance in the subsequent crop)
What worked well during the conversion period? In which areas did you have success?
• Seminars and workshops dealing with the conversion to organic were very helpful • Cereals worked well, also mixtures of cereals and protein crops • The cultivation of soybean and cucumber did also work well
To what extent has crop rotation on the farm changed in the course of the organic conversion?
• Legumes became more important • Alfalfa was newly included in the rotation • The cultivation of catch crops was intensified • Sugar beet cultivation was abandoned because of conversion to organic • Higher emphasis on the alternation between winter annual crops and summer annual crops
To what extent has soil cultivation changed on the farm in the course of the organic conversion period?
• Soil tillage with cultivator with goosefoot shares became more important (especially after cereal harvest and preceding sowing summer annual crops (soybean, corn, etc.) • Swing share cultivator gained more importance, plough is less often used • Rotary tiller was invented for suitable tillage of catch crops • Nearly no changes in soil cultivation practices on the farm
In which areas would you have needed more support during the conversion period?
• Strategies in mechanical weeding • Seminars dealing with practical workflow on organic arable farms (when hoeing or harrowing)
Who could/should have provided this support?
• Mentoring system with experienced organic arable farmers would be very useful • Farmers teaching farmers

3.3 Denmark: interviews with conversion advisors

3.3.1 Details of the approach

A different approach was agreed in Denmark because of the existing service of conversion checks for farmers that are carried out by advisors (Box 1). These checks are free to the farmer and there is a set protocol for preparation, the visit, and the follow-up.

This opened the opportunity to identify concerns of farmers using the knowledge of advisors, based on reports from conversion check visit. This is a unique resource only available in Denmark that the practice partner was keen to explore.

In total four interviews with advisors were carried out, comprising of the persons that had direct contact with farmers and some further discussion with advisors that function as knowledge providers of the primary advisors.

The interview guide included an agreed list of questions, including about topics discussed during the first visit, key factors influencing the decision, and obstacles mentioned by the farmers, as well as some questions about numbers of conversion checks provided and farmers subsequently taking up conversion. The results were further discussed, both with leaders of the advisory centres and with knowledge exchange advisors. Statistics were collected from all the advisory centres that had been executing the conversion checks and analysed.

Direct discussions with farmers that have used the conversion check service (whether deciding to convert or not) remain planned for later in 2025 and should be included in a further revision of this report.

3.3.2 Results

The results section is based on a summary of the interviews with farm advisors that have carried out conversion checks and additional reflections of the Danish team.

Economic issues were always addressed intensively as a topic in the conversion checks, followed by the practical aspects of plant production and feeding the animals—especially livestock, beef, sheep, and horses were of concern. Many farmers were also concerned about the rules and regulations and were reflecting on the benefits of being certified and how much extra costs and efforts they would need to certify. Asked separately about barriers to conversion, farmers mentioned a broad range of issues: market stability, weeds—also around the farmyard—mindset change, way of thinking, availability of organic fertilisers, complexity of standards around fertilisation and livestock.

For specific sectors, further issues were mentioned: for beef production, a lack of premium and price uncertainty; for arable farming, uncertainty about yields, how to control the weeds, and how to source nutrients. All farmers mentioned the rules, especially on shared grazing with other holdings and parallel cultivation of conventional and organic as well as the documentation requirements, and the obligatory controls. A dominant reason given by most farms for not converting was the broad heading economy. Some farmers asked for more detailed calculations they had to pay for.

Cited by their advisors, farmers are nervous to convert; they don’t like all the rules, they are afraid of being limited in the nutrients they can use fearing low yields (the national regulations limit the total amount of nitrogen allowed to be imported from conventional origin), and they are unsure if they can get the prices they need for the products. The inflation period in Denmark, lasting the most of 2023 that has reduced the sales of organic products, has also created uncertainty among farmers about future market potential.

Box 1: The Danish Conversion Check

Since 2011, the service of **conversion checks** has been executed in Denmark, as part of a governmental plan to mitigate environmental pollution of agriculture and to protect nature. This reflects the wider acceptance in Denmark that organic agriculture is a common good, so by supporting the conversion of conventional agriculture to organic, society would gain. The advisors time for the service--restricted to about 12 to 16 hours of subsidised time (or max €1,500 per farm)—is free of charge to farmers. It is paid for by funds based on levy on pesticides and agricultural products.

Between 2011 and 2022, about 3,000 conversion checks had been carried out (Figure 3.2). The same funding model also applies to other checks, e.g., for maintaining organic production, biodynamic production, or biodiversity and sustainability checks, but the uptake of other schemes is much lower than organic conversion.

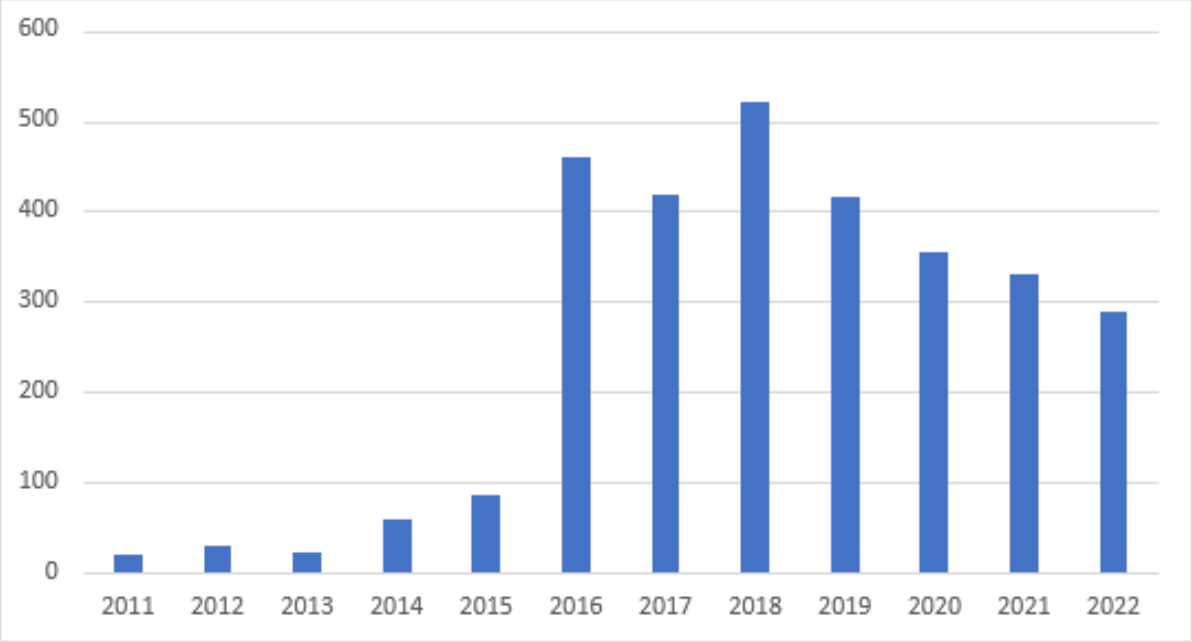

Figure 3.2: Conversion checks carried out in Denmark between 2011 and 2022
Source: ICOEL 2024. National report for Denmark

The manual—revised in 2015 after about 500 checks has been carried out—sets out actions that should take place to prepare for the meeting on the farm, including information that should be sent beforehand, the implementation of the check itself, and the report sent to the farmers afterwards. Farmers can also ask for a more detailed calculation of the likely financial outcome of conversion, but this is not free of charge. The manual also includes templates and checklists for the advisors.[11]

In the first years of the service, mainly the farmers themselves asked for the conversion check service. Recently, other organisations are also asking advisors to contact farmers to check the possibilities of conversion, e.g., municipalities that wanted farmland close to housing districts to provide more nature or help maintain nature reserves, drinking water companies wanting to secure their water reservoirs, nature NGO's wanting to preserve bird life, etc.

[11] https://organic-farmknowledge.org/tool/54737.

Idealistic young small farmers (often part-time) are more optimistic, willing to take the risk, not being dependent on farming as their main income. They express the need for action to prevent further deterioration of biodiversity and quality of ground and surface water.

Based on analysis of the conversion check statistics discussion with advisory centre leaders, some further trends can also be summarised from the interviews with advisors:

- The rate of farms that decide to convert is around 50%. It was not possible to distinguish between the farmers who had asked for a conversion check and those who had been encouraged by the municipality or other organisations to explore organic farming.
- The farms being converted the past two years are often smaller family farms, often part-time arable, with small ruminants of suckler cows.
- The uptake of conversion checks is higher among arable farms--some small and some very large—compared to dairy farms and other sectors.
- Although conversion checks are provided for free in Denmark, demand has been declining. When reaching out to farmers in regions where drinking water companies or municipalities prefer to have organic farming over conventional methods that involve pesticides and easily leachable nitrogen, many farmers are dismissive, in contrast with previous years.
- A larger percentage of primary advisors are beginning to advise both organic and conventional farmers. The reason is mostly because advisors have to generate their own income, and in the region where they work, there might not be enough organic farmers to pay for their work.
- Farms discontinuing organic certification are often large-scale operations where farming is the primary source of income and includes several dairy farms. Most newly converted areas come from the expansion of larger holdings.
- There is the impression that a generation of organic farmers nearing the age of 70 is going out and a successor cannot always be found.

3.4 France: interviews with advisors in fruit production and two wine growers

3.4.1 Additional background

Morale of organic farmers in France

In 2023, Agence Bio conducted the first barometer of organic farmers' morale aiming to give a voice to those that are most affected by the crisis in the organic sector. 20% of all French organic farmers responded to the survey (Agence Bio, 2023).[12] Of the respondents, 95% are proud to be organic, and 62% remain optimistic about the future of organic farming. Key motivations to be organic are a commitment to the community, taking care of the environment, human health, and producing good, healthy food for consumers.

The factors that were raised as undermining organic commitment are:

- Low added value for one or all products (51%)

[12] See also: https://www.salonbio.fr/wp-content/uploads/2024/10/Conference-LTNM-Maintien-en-BIO.pdf.

- Abolition of organic maintenance support (43%)
- Increase in production and labour costs (38%)
- The slow or time-consuming administrative procedures in organic (31%)
- The costs of certification (29%)
- Lack of outlets (29%)
- Lower regulatory requirements in organic (25%)

Similarly, factors that would encourage farmers to maintain organic production are:

- The sales price of organic produce (56%)
- Increased communication on organic to the general public (51%)
- Increased financial support (46%)
- Decrease of the costs (41%)
- Organising the organic sector (39%)
- Technical support (32%)
- Diversifying marketing channels (30%)
- Support for equipment (25%)
- Improving the requirements of the organic regulation (21%)

A second survey, yet unpublished, was carried out in the North-East region, which was answered by 33.2% of the 4,109 organic farmers in that region, but the sample is not representative of all farmers in the region.[13] Preliminary analyses showed that the main motivation for farmers to switch to or to remain in organic farming are ethical, environmental, and health reasons. The two main difficulties that organic farmers encountered are economic and administrative. Farmers also frequently mention technical difficulties especially plant disease management and weed management. Most of the survey respondents had quite a low turnover (less than €15,000 per year) and were not particularly satisfied with that, which raises some questions about the economics.

Organic fruit production in France

The work on barriers concentrated on organic fruit production. The types of fruit produced vary widely from region to region (stone fruit, pome fruit), of which apples is the leading crop in France.[14] In 2023, the leading regions to produce table apples were Provence-Alpes-Côte d'Azur (PACA) (24%) and Occitanie (16%), while Normandy is the leading region for cider apples and also a major producer of table apples.

In 2024, the area under organic table and cider apples continued a decline that begun in 2022, with a decrease from certified and in-conversion areas reaching 15% and 13% respectively. This decline is due to the slowdown in organic conversions, but also to the drop in certified organic area. The number of farms also declined, by 9% for table apples and 15% for cider

[13] DIS-BIO Survey, Understanding the motivations that drive farmers to choose and remain in the organic farming system (confidential).
[14] https://www.agencebio.org/decouvrir-le-bio/le-bio-en-quelques-chiffres/.

apples[15]. In 2024, French organic arboriculturists were facing their third consecutive year of crisis.

Technical challenges of organic fruit production

Organic fruit production requires high level of technical expertise. The challenges differ depending on whether an existing orchard is converted, or a new one is set up, which can be redesigned to be better suited to organic production. Many species can be grown organically, but organic management requires replacing an approach of seeking single solutions to specific problems by a "problem = causes to be identified and reduced" approach. The technical challenges of organic arboriculture are numerous.

- The search for biological equilibrium to promote biodiversity and minimise direct control (plot layout, hedges, etc.).
- Finding a balance between yield and low disease pressure.
- The search for varieties that are better adapted to organic production, meeting both growers' needs (disease resistance, moniliasis, scab, alternation management, etc.) and consumers' needs (gustatory and nutritional qualities).
- The search for alternatives, mainly to copper (essential oils, etc.)
- Soil management and fertilisation to promote biological activity and make nutrients available.[16]

Call for a National Strategic Plan for organic viticulture

The national organisation of organic farmers (FNAB) is calling for urgency to develop a national strategic plan for organic viticulture.[17] This should help develop crisis management tools in difficult years like 2024, such as:

- Financial support, particularly for cash flow.
- Improvement of knowledge of the wine market by distinguishing organic volumes in harvest declarations for all appellations.
- Discussions with insurers to take account of mildew damage in multi-risk climate insurance and the agricultural disaster scheme, by integrating an "organic farming" compensation scale.
- Work with interprofessional organisations to identify market regulation tools that could support exceptional climatic years, such as extending the Champagne PDO quality reserve system to other PDOs, to limit the impact of difficult years on wineries' cash flow
- In parallel with these urgency measures, the organic winegrowing sector needs technical support in adapting to climate change, and in developing preventive and curative solutions to mildew.

[15] Arboriculture Décembre 2024 Note-Conjoncture-fruits-a-pepins-FNAB-2024-2025-2.pdf.
[16] Page arboriculture biologique, Produire-bio, La filière arboricole biologique - Produire Bio).
[17] https://www.fnab.org/la-fnab-demande-une-strategie-nationale-pour-la-viticulture-bio/.

3.4.2 Details of the approach

In France, the work consisted of five interviews with advisers working in organic fruit production in different Regions of France (conducted at the end of 2023) and statistics and research evidence collected from Agence Bio.

To be able to hear famers' voices more directly, two interviews with farmers (two women winegrowers) were conducted at the end of 2024 and two testimonies from organic farmers in leading positions in the sector were also considered, included at the end of the result section. One is the President of the organic Commission of the French national cooperation federation (La Cooperation Agricole, LCA), and one from the former President of Agence Bio. Both testimonies emphasised the difficulties of remaining organic in the context of the adverse conditions in recent years.

The five advisors of organic fruit production interviewed were chosen to reflect the variety of structures in which they work and important regions for apple production.

3.4.3 Results

This section summarises the responses of the advisors in fruit production on levers that support or hinder farmers in converting to or staying organic, followed by the results of the interviews with two wine growers. The last section covers the call for a national strategy in organic wine production. Advisors explained the difficulties for actual conversions and shared reasons for reluctance of conversion for fruit farmers and also the opportunities and levers.

Availability of conversion and organic advice in different consultancy organisations

Consultancy services vary widely according to the type of organisation. Producer cooperative organisations mainly offer technical advice specialised in mixed arboriculture. Their advisors are technically advanced, but not necessarily organic specialists. They mainly provide individual technical support for their members. They can also provide collective support, but often for non-mixed groups of either organic or conventional growers. This is because, technically speaking, they do not have the same issues or the same expectations.

In institutional advisory structures such as the Chamber of Agriculture, the offer is more diversified: farmers can benefit from paid technical advice, with a sub-offer for small farmers; farmers can benefit from advice specifically for conversion; an advisory offer also exists for planting new orchards, where the need for advice is much greater. This last remark is shared by all advisors.

In other independent structures such as associations, collective advisory services are provided at low cost, in the form of training courses or in some groups such as Dephy groups[18] financed by national subsidies. Individual technical advice can be provided according to the advisory body's expertise, and in the form of an annual membership contract (as with the Chamber of Agriculture). Arboricultural advisors in independent structures are not always contacted

[18] The DEPHY network is one main action from the national ECOPHYTO Program. It aims to reduce pesticides use, and brings together 3,000 farms involved in voluntary programs (https://ecophytopic.fr/dephy/le-dispositif-dephy-ferme). Organic farms represent 31% of the total.

directly for information at the start of the conversion process. Each region has a conversion reception point where all initial inquiries can be collected.

Past and present conversion dynamics

All the advisors highlight a wave of conversions starting in 2014, depending on the context, and continuing until the start of the crisis in 2022. In each region, this wave of conversions was represented mainly by the transition to organic of large, specialised farms supplying downstream operators. It was triggered by the commitment of the region's main downstream economic operator (a major processor in one region, a large trader in another, etc.).

The advisors all point out that for table apple and pear production, technical obstacles make it impossible to maintain conventional yields. Price compensation is therefore essential to maintain conversions. However, in the good years for organic apples, downstream economic operators offered some advantageous prices on multi-year contracts, while others offered no annual contract but paid a purchase price almost twice that of conventional production. This market appeal triggered waves of conversions by large farms, the majority of which partially converted their holdings and created a legal structure dedicated to organic production.

Today, advisors are unanimous in noting a halt in conversions, and in some cases even deconversions. According to one advisor from a cooperative, only “technically poor” farmers are abandoning and returning to conventional, low prices are preventing the farmers from remaining in organic. The advisor mentioned that “a recent audit of the cooperative's members revealed that organic fruit production (apples and pears) no longer generates any income.”

All advisors also stressed that still some producers continue setting up in organic arboriculture. However, these new plantings are considered atypical, oriented towards direct sales and agritourism, or even not aimed at profitability. They involve small areas and a diversity of species. However, the need for advice does exist for these new players too.

Obstacles and levers for conversion to organic apple and pear production

The advisors emphasise the numerous technical challenges**.** According to the five advisors interviewed, the technical obstacles concern the following:

- Pest management is very complex in organic arboriculture. There are many pests (primary and secondary), and in perennial crops, pest dynamics must be managed on a multi-annual basis. Pest management requires in-depth knowledge of biological regulation processes. This is often the focus of technical questions during conversion.
- Alternate bearing management: machine adjustment is a recurring issue. Alternate bearing is becoming more of a problem with climate change.
- Weed management using mechanical weeding involves technical expertise to avoid damaging the trees, which requires skilled labour. Weeds can also be managed using cover crops, but this can lead to fertility problems.
- Conservation disease management is made complex by the existence of dead-ends
- Fertility management is complex because of the organic nature of inputs. Managing it requires detailed knowledge of mineralisation processes, which growers do not always master. Two advisors point out that this has major consequences in terms of yield.

The advisor from Rhône-Alpes saw yield loss as a major problem. He mentioned that “when a conventional orchard is converted to organic farming, the yield loss is significant (55% for apples, 70% for pears, 30-50% for early peaches, 45% for apricots due to moniliasis, 45% for cherries due to fruit flies, 45% for walnuts, and 45% for olives due to fruit flies.” Added to this yield loss are: a) rising input costs: “Rising input costs—diesel, organic fertilisers—are a problem, especially since the war in Ukraine, 2023 saw the biggest price increase in 20 years”; and b) an increase in labour time: “In organic arboriculture, there are a lot of time-consuming additional cultivation operations: mechanical weeding, prophylactic passes, manual thinning in apple trees, time spent harvesting, etc.” These factors lead to a sharp rise in production costs. When these production costs are not offset by a better price, the organic arborist can no longer make a living from their production. Arboriculture involves perennial crops, which are expensive to set up. While it is possible to quickly change systems for field crops or vegetable crops, it is much more complicated for orchards that are set up for several decades. Conversion scenarios by adapting the orchard are therefore often too slow to be a lever for success in the current context.

Two advisors cite downstream obstacles beyond the crisis recorded since 2022 and the fall in organic fruit prices (cited by all advisors as an obstacle). Other factors accentuating the technical difficulties faced by growers are market segmentation and the multiplication of labels and specifications such as “organic, HVE, regenerative agriculture, Bee Friendly, etc., which creates complexity in their trade and therefore considerable pressure to manage.” In addition, as consumers have more choice thanks to this segmentation, they are becoming more demanding, “which encourages a race for the “perfect fruit” in terms of size and visual quality. Before, organic produce was sold in bulk, so size wasn't an issue. Today, quality criteria are closer to those of conventional produce.” Supermarket consumers tend to look for standardised products (according to one advisor out of five).

One adviser also pointed out a lack of political will on the part of downstream players to structure the sector, with little consultation and organisation between the sector's players to encourage its development.

Three advisors cited regulatory obstacles, particularly the approval of phytosanitary products in France as a major obstacle. “In arboriculture, we can only live with products that have derogatory Marketing Authorisation (MAs). We don't have any long-term MAs, which is a big problem. INAO derogations are issued a few days before use, and they always wait until the last moment to give their opinion. We have to wait for the derogation before we can buy, so suppliers have to stock up” (Normandy).

Finally, three advisors also cited a lack of investment in research as a final obstacle—advisors deplore a lack of suitable planting material. “For the moment, there is little planting material designed for organic production, there is no real selection for organic production.” “We no longer have any rootstock selection: in France, there are no longer any researchers working on organic plant material” (Normandy). Due to “a lack of solutions for managing pests and diseases, without the companies (BASF, Bayer) who work hard on developing organic solutions, there would be no organic arboriculture” (Rhône-Alpes). The advisors believe that investment in RandD is a real lever for maintaining organic arboriculture in France.

The advisor from Rhône-Alpes talked about two further levers that impact on conversion:

- a commitment by downstream economic operators to offer contracts with more remunerative prices for producers (or producer organisations).
- support for the gradual transition of the orchard for a long time: “An orchard is planted for many years. Modifying an orchard to make it more resilient and better adapted to organic farming is a long and costly process. It can't be done quickly and all at once. The process has to be sequenced and spread out over time” (Rhône-Alpes).

Advisors’ views on farmers' motivations for organic and knowledge of organic farmers

Overall, the advisors agreed that not all farmers like to treat their orchards chemically and that they want to do without chemicals. Beyond the question of price, which today prevents almost all conversions, advisors distinguished two different types of farmers in conversion:

- Convinced producers: The majority have switched to organic today. They switched to organic before the 2010 wave and during it. According to two advisors (Rhône-Alpes and Provence), these producers were not necessarily technically advanced but wanted to change by conviction.
- Pragmatic, or even opportunistic, producers: According to the advisors, these producers switched to organic at the time of the wave, with the market's appeal acting as a trigger. “The majority of these producers were technically competent, but did not necessarily have knowledge of organic before conversion.”

As the conversion process is often accompanied by exchanges with peers, one advisor noted that organic arboriculturists want to re-appropriate their profession and become autonomous in terms of knowledge. For this advisor, “the needs in terms of support are therefore different from conventional farming: they want to reappropriate their knowledge and their work” (Limousin). Advisors also cited other reasons for conversion, such as preserving their health, adapting to climate change, and preserving biodiversity.

Overall, when it comes to conversion, the advisors share the view that questions mainly concern technical aspects (pests, thinning, fertilisation, weeds) and commercial aspects (market and selling price), whereas in the case of establishment, questions concerning orchard layout (variety and rootstock) are important.

At the end, pointing to the third year of heavy problems for organic, the advisors mentioned that “weather risks, such as frost and hail, heavy rainfall or drought, crisis in consumption, and falling prices today represent one of the major challenges for maintaining the organic status.”

Views of two women winegrowers planning to convert to organic farming

The two women shared their experiences on what helped them make their decisions to move towards organic. They both underlined the gloomy context for viticulture (currently a grubbing-up plan is in place). The 2024 growing season was particularly difficult weather, for powdery mildew for all viticulture but especially for organic ones. The lack of collective awareness of the high variability winegrowers are going to face because of the climate change remained a concern.

One of the two was not ready to move completely to organic. She thought the advice network to convert to organic farming is not the problem, it is sufficient and of good quality. There is a dynamic union concerned by environmental issues, and more than a third of Châteauneuf du

Pape's vineyards are already organic. Yet she was not ready, technically and psychologically: “As far as crop protection is concerned, I can't manage to go organic. There's a wall blocking me from going organic, and that's a fear of crop protection management. I'm compensating with the other practices where I'm organic (fertilisation, weed management).”

She felt like she would be able to move entirely to organic if the use of chemical products would become mandatory forbidden. She heard some people saying that in 20 years, there will be no more chemical products: “I'm not against a constraint that would become compulsory for everyone.”

This year, she was particularly reassured in her point of view by one long-term organic winegrower who was concerned about nature. Considering the prices in Côtes du Rhône, he advised her not to convert because she was going to face difficulties: “I'm losing harvest, the prices don't balance the loss and the time spent, I am not going to put up with it much longer.” This can be considered as the most unexpected issue, because it is not often that a long-standing organic farmer is inclined to reconsider their commitment. Sometimes organic pioneers may be reluctant to promote conversion to new entrants (for fear that the market won't absorb new entrants, etc.), but not to re-examine their own former choice.

She underlined the importance of training and the importance of the training subsidies for her own trajectory: “Having €3,000 a year for training with a low remaining outlay is very interesting, and it helps changing practices.” She indicated the importance of all kinds of economic support as incentives to move to organic. Concerning weed management, she stopped chemical weedkilling two years earlier (even if more than half of the farm is located in complicated areas concerning weed, which is time-consuming : “I was using glyphosate for convenience, it was very efficient and very fast, but I saw that I was killing everything in the soil, I was sterilising my soil; now even if there's some grass, it is not too bad.” She indicated that the “Glyphosate tax credit[19]” helped her to move to mechanical weed management: “During the Certiphyto training,[20] I learned that I could apply for it, that has made it easier to stop using chemical weedkillers.”

The other grower in the Southeast of Vaucluse underlined that she allowed time to convert, as for her it is a long process. She used to be an adviser and has high technical knowledge. She is quite autonomous, for instance she watched several videos on tools to make the right choice in agricultural machinery for the organic weed management to benchmark different possibilities. But for other issues, she prefers real interactions with organic farmers or advisers. She underlined that she had to use about 1,5 times as many passes for mechanical control in organic compared to conventional, which led her to questions about sustainability for organic because of the use of petrol.

Both winegrowers underlined the importance of wider commercial strategy as a driver, illustrated by the contrasting experience in two regions. In the Southeast of Vaucluse, one of the biggest wineries, which represents 2,000 ha, the few who were organic have left. There is no incentive for organic at the cooperative level. The winegrower mentioned that “the

[19] €2,500 in 2021 and 2022. Note that the organic tax credit was €3,500, now €4,500 (half of the organic farms have it); see also https://www.agriland.ie/farming-news/france-introducing-tax-credits-for-farmers-no-longer-using-glyphosate/.
[20] Mandatory training for farmers to use chemical products.

production of a plot was even downgraded because there was a little too much weed! It is repellent, there is no support for risk-taking, and no long-term vision."

In contrast, in Chateauneuf du Pape, environmental and social issues are at the heart of the appellation organisation (ODG): biodiversity is promoted and supported, and there is a strategy for maintaining and developing organic.

Points raised in the testimonies of two farmers with responsibility in organic organisations

Testimonies of two representatives of the organic sector were shared in a working group on prospects for the development of organic by 2040. At that time, some farmers of the group had chosen to stop their participation in that group concerned with scaling organic, because they saw it as directly contradicting what they were experiencing (such as reduced financial support, etc). The two farmers had responsibilities in institutional structures (national French Cooperative Federation and Agence Bio) and gave their analysis of the situation of organic in France at the time.

The first farmer explained that he converted in response to the conventional crisis in 2008-2009: "I converted the farm in 2011, after having suffered from the consequences of the 2008-2009 crisis, when my operating costs exceeded my income." It was impossible for him to succeed without changing his model. Converting to organic was associated with diversification. He developed an organic broiler poultry workshop in line with the crops that were organic: "there's a strong synergy between animal and plant production, and this has enabled me to be more resilient."

He underlined that during the 10 years of results this work brought him €118,324, i.e., an average salary of €986 net per month! And in 2023, he went into negative income: "My poultry buildings have been empty half the time, I'm in full depreciation, I still have €420,000 in loans to repay, and I should point out that I work at least 50 hours a week, 7 days." In both of their views, the legitimate demands for income from a significant proportion of farmers have been transformed into demands against measures designed to protect the environment for all. In this context, unfortunately, organic farming seems inaudible for a part of actors.

The second farmer indicates: "Organic proposes an agricultural model that is certainly in line with long-term sustainability, but which clashes with the interests of the business world, and from which the political world doesn't really see any immediate gain."

They both came back to the inflation rate as a problem. Even if the inflation is lower for organic products than for conventional ones,[21] in a period of shrinking purchasing power, trade-offs are being made on so-called upmarket products. "As long as we were growing strongly, no one could openly criticise our model, but the crisis in purchasing power was opportunely used to delegitimate organic." "Our handicap, from an economic point of view, is that we offer much more autonomous systems, and therefore generate less sales for all the entities gravitating either upstream or downstream of agriculture (…) Basically, on a macro-economic level, we represent what some pejoratively describe as a strategy of quantitative degrowth. All this generates a torrent of opposition."

[21] Source Agence Bio, 2024: Organic inflation was 7.7%, while overall food inflation was 11.8%

One of the farmers supported the idea of the importance of better controlling production costs and putting pressure on politicians: “we have to hold out economically, adjust our charges more effectively for those who still can, and put pressure on politicians to loosen the noose.” They both emphasised the role of public policies to pull and push organic agriculture, but pointed out that some tools are not implemented: “The EGALIM law was designed with a laudable aim, to improve food quality (targets of 20% organic produce in canteens and catering and 30% other quality products as a minimum) and also to pay farmers a fair price by ensuring that agricultural raw materials are no longer the price adjustment variable in negotiations with distributors. Here again, we must admit that it's not working yet, and I fear that our leaders are not taking the right decisions quickly enough to ensure that this law is fully applied.”

He also pointed out the important role, especially in a difficult context, of the groups to share their points of view, and to keep spirits high: “We also need to pull together psychologically, and that's not the least of our concerns. In this respect, all our groups are essential.”

3.5 Germany: interviews with conversion advisors

3.5.1 Additional background on organic farmers in Germany

There have been several studies on factors impacting conversion or staying in organic production over time in Germany, using a variety of methods. Only a selection is presented here.

Schramkek and Schnaut carried out a survey of supporting and hindering factors of organic conversion for the German Ministry of Food and Agriculture in 2004. The survey referred to consecutive stages of the conversion process from initial awareness to the actual conversion. As main barriers for conventional, farmers across regions and farm types raised uncertainty of sales and low producer prices along with weed control. For livestock farms, the difficulty of complying with the EU organic regulation was an important topic, which might be related to the timing of the survey shortly after new requirements for livestock producers were introduced in 2000. Cash crop farmers also referred to having to give up the secure access to marketing outlets (Schramek and Schnaut, 2004).

Best (2006, 2009) carried out a postal survey of 1,795 farms (969 organic and 826 conventional) in West Germany in 2004, using the construct of a rational choice model of the adoption of organic farming. He used a three-stage model of the decision to organic, starting with a stage of disruption of current practice as the basis for considering alternatives. The idea of disruption as the start of change was also used by Sutherland et al. in the trigger change model of farm decision-making (Sutherland *et al.*, 2012). The second stage was one of exploring alternative option. In the final stage of the actual decision to conversion, farmers consider the specific utility of going organic for their holding. The author used the model to explore various factors that impact on the different stages, using the empirical data from the survey. He also developed recommendations for future development. He concluded that a sustainable growth strategy for organic farming must improve the vision of organic farming in the agricultural population. The direct utility measurement offers some insight into the topics that are most important for farmers, many of which are identical or very similar to those explored in this report. At the operational level there are many technical questions: Will I be able to control pests and weeds? How are the yields going to develop after the conversion? Do chemical substances more harm than good? Another important topic is farm economics: Will

there be a market for my products? Can I guarantee long-term economic security by the adoption of organic farming? And how is the workload going to develop? Further considerations involve subsidies and the ecological performance of organic farming (Best, 2006, 2009).

Heinze et al. (2011) presented a statistical analysis of factors related to conversion and reconversion, based on farm structure data. The results show that especially farms with larger areas of land are more likely to switch to organic farming and maintain it, as the larger areas allow them to produce more extensively; high livestock density also has a significant positive effect on retention, as the provision of organic manure facilitates on-farm nutrient management; farms that have higher share of converted land have higher probability of maintaining organic than farms that have only partially converted; the number of employees also has a positive effect on the decision to switch; and farms that previously attempted conversion are more likely to convert and experience in organic farming had a positive effect on maintaining it (Heinze, Tiedemann and Vogel, 2011).

Kuhnert et al. (2013) present a detailed investigation of factors influencing re-conversion, i.e., of farms turning back to conventional farming. The report states that for future growth of the organic sector limiting the number of farms that exit organic as much as possible is also important. The aim of the work was to examine what motives are behind reconversions and how this can be prevented. The study used a mixed method approach with a written survey of more than 700 farmers that stopped organic farming (covering farm structure data as well as question on motives) and with 29 personal interviews with such farmers. The analysis also looked at whether the farms went back to conventional or gave up farming altogether. Reasons to give up were often not directly related to organic management but rather to insufficient financial performance and a lack of a succession. With farm closure the land area was subsequently managed by conventional farmers and lost as organic area. Higher reconversion rates were found for part time farms, small farms, and older farmers. Above average reversions were found for specific farm types, such as sheep and goat farms and beef finishing, while farms with an emphasis on field vegetables and potatoes were less likely to revert. As a rule, there was not one decisive reason for going back to conventional, but a combination of personal, farm-specific, and external factors that the farmers considered before reverting to conventional together with financial motives often played an important role, as did problems with organic regulations and controls. This diversity means that there is no central and all-encompassing measure that could be used to prevent farmers going back to conventional, but all measures that improve the conditions for all organic farms will also influence the number of farms leaving the organic sector (Kuhnert et al., 2013).

Hinzpeter (2024) explored the case of BioRegio Betriebsnetz (BRB) in Bavaria as an example of a policy-initiated but farmer-based knowledge network that complements agricultural advisory services.

Leonnig and Nielsen (2024) explore the knowledge networks of organic farmers using the microAKIS framework and confirm a wide variety of sources surrounding each farm business is used for knowledge exchange. Regarding agricultural practices and technologies, fellow farmers and the organic producer associations are the most important sources.

3.5.2 Details of the approach

At the start of the study period for this task, there were generally few farms interested in conversion. The partner contacted some farmers who were the decision-making phase, but they were not willing to participate in the project. Despite considerable effort as well as contacting several other organisations (such as the Competence Centre for Organic Farming in Lower Saxony, Bavaria, and Baden-Württemberg) it was not possible to identify suitable farms willing to take part. The organisations responded that they are "currently receiving hardly any inquiries from farmers interested in converting."

To obtain some insights on conversion considerations of farmers, eight interviews with advisors from Beratung für Naturland were carried out between July and September 2023. These advisors are in direct contact with farmers and advise them from the initial consideration to conversion and beyond.

The effort to find farmers willing to take part continued, and by the end of October 2024, one individual interview with a new Naturland member who started the conversion process in 2023 was conducted.

3.5.3 Results

In the following, the most important results found in eight interviews with advisors and one farmer interview (already in conversion process) are summarised. This is divided into three main topic-categories:

- Feasibility regarding technical and practical regulations,
- Political environment
- Finances and economic factors.

Feasibility of conversion regarding technical and practical conditions

An issue mentioned by all consultants was feasibility in general but ultimately broken down to the individual circumstances on each farm. Farmers fear it will be too much of an effort (and too expensive) for them to upgrade their facilities according to the regulations (e.g., requirement of own warehouse, no access to organic fertilisers, etc.). Within the decision-making process, a lot of farmers get supported with detailed plans on these feasibility-dependent criteria. The advisors explain that it is not uncommon for farmers to decide against conversion, because they believe that the existing conditions cannot be changed or that the effort will not be worth it in the end.

This was also mentioned by the farmer interviewed, who stated that following the rules around pesticides was a particularly hard criteria for the decision to convert or not, since in ecological agriculture the practices are associated with higher time, monetary and personnel costs. Hence, many farmers have doubts about the technical details of the conversion and ecological practices. Many consultants reported that a lot of questions in initial talks with interested parties, especially in Southern Germany, revolve around technical details regarding production technology.

In addition, the farmer who recently started the conversion process mentioned difficulties in finding staff due to the high bureaucratic burden when employing seasonal workers from

abroad, even though the ecological practices would demand more work than conventional farming in his (specific) case (orcharding).

One consultant (Demeter) emphasised that the labour burden associated with the operational changes also apply to animal husbandry. In particular, stable construction and availability and setting up pasture for grazing were the reasons for farmers he was in contact with to stop the conversion process at an early stage, before it even started. He explained further that in some cases the conversion was aborted due to external influences for example a landlord not wanting organic agriculture on the land that was being leased to the farmer.

Finances and economic factors

According to the consultants interviewed, financial and economic factors influence the farmers decisions regarding conversion greatly. They were told many times that the farmers fear they will not be able to earn what is needed, especially within the conversion phase, where product cannot yet be sold as organic. The consultants were also told that the current inflation is putting additional pressure on farmers.

The farmer interviewed explained that if her farm would not have a good main income from another job, and thus sufficient start-up capital, conversion would not have been possible. She also received a lot of help from the family, in terms of advice on organic farming and support with the workload. The Demeter-consultant interviewed agreed and mentioned high costs of conversion as a major issue for interested farmers versus low subsidies and not being able to sell their products with the organic label in the conversion phase ("Conversion aid is not paid out in the years of conversion when it is really needed").

The interviewed farmer also explained that for her as a part-time farmer, without her business management background, it would not have been possible at all to handle the conversion from an economic and bureaucratic point of view. Conversion means enormous additional time expenditure for e.g., the organic inspection, QS inspection, pesticide practices—many additional inspections and work stages compared to conventional.

Political environment and market uncertainty

All interview partners, furthermore, stated the political environment as a big issue for the conversion or having a big influence on the thought-process of farmers regarding conversion. The consultants explained that many farmers were unsure about the timeline of conversion. They ask themselves whether the start of conversion should be chosen according to the funding periods for conversion grants or the agricultural year, which would make more sense for practical reasons but not financially.

Additionally, the uncertainty conveyed by politics (about regulations and how fast these will change again) was mentioned as a deterrent. More political regulations, e.g., a mandatory share of organic products in canteens, to make sure safe sales channels exist for the farmers, are needed. Otherwise, the consultants described, the farmers fear, they will not be able to sell their products. Many farmers are missing planning security that does not exist from the market side nor the political side regarding subsidies or regulations especially in animal husbandry. They also see a high bureaucratic effort and complexity between premiums and subsidy programs and a lack of clarity how these can be combined. These factors would often stop them from pursuing the conversion process further.

3.6 Greece: Aquaculture producers in several regions

3.6.1 Additional background on organic aquaculture

Lembo and Mente (2019) provide an overview of various aspects of organic aquaculture in an edited volume. Perdikaris and Paschos (2010) provided an overview of organic aquaculture, which had attracted attention from both researchers and industry. Organically produced aquatic products are increasingly available to consumers, and sea bass and sea bream from certified farms in Greece in particular have been exported and channelled to large retail markets in Greece since 2008 (Perdikaris and Paschos, 2010).

Other publications look at determinants of consumption on the market (Polymeros et al., 2014). Mente et al. (2011) highlight that important challenges for organic aquaculture are to improve the coordination between production and market and to achieve an appropriate framework to drive further development. Mente et al. (2012) look into further aspects of aquaculture production.

3.6.2 Details of the approach

The group of aquaculture producers was organised by Aristotle University of Thessaloniki (AUTH) and formed during a first online meeting in March 2023. Instead of a second meeting, each person was visited by Dr. Elena Mente on the farm as requested by the participants. A final meeting was held at the University in May 2024 in combination with other activities in Work Package 5 and was attended by all the farmers and other key stakeholders. It was noted that the meeting was not attended by a representative from the Ministry, indicating a lack of political interest for organic aquaculture.

The discussion turned out to be towards various problems and issues of production. Participants had the opportunity to make many observations and provide new research ideas. The Greek CoP group includes four producers: one representative of a family farm growing trout in fresh water and three representatives from larger farms producing finfish in marine waters. Their expertise is on three species of marine fish, the European sea bass, the gilthead seabream, and the great amberjack.

Table 3.3: Details of the meetings of the CoP of aquaculture producers in Greece

Location	Date	Type/Attendants
Online	22 March 2023	First meeting: 10 participants from 3 farms including AUTH staff.
Private interviews	27 November – 5 December 2023	Second meeting: Dr. Elena Mente visited and interviewed 3 farms, one on the phone.
AUTH Amphitheater	8 May 2024	Third meeting: 16 participants from 4 farms including AUTH staff and other stakeholders.

During the final group meeting, a participant announced that the only organic hatchery in Greece will be shutting down operations by the end of 2024, since new management guidelines prevent having enough economic returns from carrying out this activity any further. This is a major setback for organic aquaculture production in Greece, since current EU Guidelines necessitate the use of certified larvae for every species grown under them. The imports of

larvae from other countries or sources pose various risks concerning disease, stress, or malformation of grown fish.

3.6.3 Results

Issues of concerns in the conversion to organic aquaculture were summarised by one trout producer as the ongoing cost of organic feed, the difficulty in acquiring organic larvae, and the lack of advice from the Ministry of Food and Agriculture. Subsidies are not seen as sustainable in the long run, so the farmer is hesitant to apply for them. The producers find it hard to sustain the increased costs of organic production along with the cost of maintaining the annual certification, in view of concerns about market developments, such as that the cost of living is rising, and consumers have lost significant purchasing power.

Participants who have indicated interest in converting part of their production to organic production have found that they had limited access to information on organic farming conversion and production. Obtaining information from the Ministry or other relevant stakeholders turned out to be more difficult, since few actors and institutions provide any advisory services, thus creating a gap between producers, consumers, and policy arenas.

An innovative breakthrough for suitable, affordable organic feed (i.e., insect meal, organic soya, or lupin meal) could help reduce costs and make organic fish more competitive to conventional for both trout farmers and marine fin fish producers. As stated by one farmer, “A big change must occur, so that organics can compete with conventional. For example, an innovation concerning feed costs. On our farm everything would be considered as having an organic standard because our environment is healthy, we have low fish densities, no disease problems, but we do not feed organic feeds or have an organic hatchery yet. The estimated price difference is 0.50-0.70 cents more for organic, so for a tonne (1,000kg) of feed the extra cost amounts to €700. If we can have an innovation like insect meal which can lower the price difference to €300 per tonne, for example, then we can be competitive with the conventional products. We sell trout for €6.50/kg as conventional, if we can sell organic for €6.80, then yes, we can do it and invest in the transition.”

Small fish farmers deal with many uncertainties and variable costs of production, said a farmer who wants to diversify towards organic great amberjack production. “Especially when you consider the variable costs of production due to even small environmental disturbances, nets breaking, etc... So, everybody continues a cautious set path because we don’t know what tomorrow will bring, you are never sure, you have no guarantees. Only because we have diversified from sea bream and seabass, we are on a good track, thankfully.” This fish farm is certified by TÜV standards.

Organic products and their increased cost of production while maintaining the certification standards is what drove the only organic fish hatchery to end its operations this year. This was stated by one participant: “We have the only organic hatchery for seabream and bass in Greece, but now it will stop working as a certified organic hatchery, for economic reasons. It is hard to sell the fish as organic due to their high cost. So, we ended up selling a big part of the production as conventional, which incurred losses that our new management did not accept, taking the decision to stop the organic certification of the hatchery.” It should also be noted that the farm is mainly focused on exports. Currently, the EU relies on only two organic hatcheries (in France and Croatia) making it close to a monopoly. On this issue, a participant questioned the regulation of organic larvae by asking what the need is of certified, organic

juveniles for organic production. The question has been answered by an explanation that the Aquacultural Advisory Council (AAC) proposed to the EU to make strategic and probably time-limited amendment to the Organic Regulation about the introduction of non-organic juveniles, since as there is not enough organic larvae, we can start the production with non-organic animals.

Farmers are dealing with extra costs, since the growing phase of fish is slower with organic feed than with normal feed. "The Feed Conversion Ratio (FCR) is not 2 as with conventional feed, it can range from 1.8 to 2.7 because the feeds now are less nutritious with all the replacements that must be made and the reduction in fish meal and fish oil but at the same time the remaining costs have risen."

In addition, an economic consultant participant added: "The EU wrongly believes that by supplying more you can generate demand. This cannot work. The only thing we can do as scientists especially biologists is to provide good practices to improve production and secondly a marketing, advertising campaign to persuade the consumer to turn to organic. But since there is a steady decrease in middle-class incomes, it will be hard to persuade them to pay such a price difference (€8-18), no matter how much advertising you provide. As always, demand drives supply, not the other way round. In the current climate of declining incomes, only if the national or EU government decides to constantly subsidise the sector or use tax incentives for organic farmers (to keep the mark up on to cost consistent with acceptable profit margins), only then will the increase of production of organic fish be realised and non-organic producers be encouraged to turn to organic production. Instead, the EU does not promote such policies."

Regarding subsidies, one farmer stated the following: "Any subsidies given will only help us to take the initial risk. In case the product doesn't sell as organic, we can at least sell it as conventional, otherwise I will have dealt with all the losses. We cannot count on subsidies in the long run, it is wrong to do so. We need to make something that is sincere, if the subsidies are taken away, we must still be able to sell and build only what we can tackle. Greece is counting on subsidies, we do not believe that they are sustainable, we only reach where we can grasp."

Regarding the uncertainty in investments on organically produced fish, two farmers stated the following: "The company is eager to convert to an organic venture, but this venture must be sustainable economically. As mentioned before, it is not sustainable to rely solely on a particular government or EU subsidy. They might give you an initial boost but after that, they let you swim on your own. The consumers who have the capability of paying these high prices are not enough to sustain the added costs mentioned already, you are doomed to finish. Say I begin with 30 tonnes, but I sell 15 tonnes, what will I do with the rest? I will be disappointed, I must get my investment back, the remaining 15 tonnes will not be sold as organic but rather as conventional and I will stop the certification because I will see the consumer is not responding when we are selling only 20 or 50 kilos per week."

Although the Ministry has stated that there is a 50% subsidy for organic aquaculture along with a tax exemption for this type of production, nobody has applied for it. Personal communications with various staff members of the Ministry showed an absence of policies that promote subsidies towards organics. It is also stated that a serious business venture would not rely on subsidies, therefore these are diverted towards conventional production and fisheries. The Ministry should enrich its relevant departments and services focusing on

assisting and not deterring prospective organic aquaculture ventures. A connection should be formed between the Ministry and the fish farmers providing updated information on the sector and relevant education, capacity building, or funding possibility updates. The Ministry of Agriculture serves mostly as an instrument for producing licenses and making checks on existing environmental issues. Available options for funding are not openly communicated and are absorbed mostly by people who are in an inner circle. There should be different departments, one for fisheries and one for aquaculture in the Ministry of Agricultural Development and Food. Currently, the Ministry has placed Aquaculture under the Fisheries Directorate, where organic production is not a priority.

Concerning the added value and incentives for organic products, a researcher stated, "We cannot forbid foreign products entering the EU. We must give the Greek consumers their buying power back by saying this is the cheap foreign product which comes with a risk, and this is the Greek one, a quality product due to the controls implemented in the industry. Consumers should understand the added value and why the price is higher than imports. We are at a battle with the political power and the ministries to convince them to teach and inform the Greek consumer how to feed the family with local, quality produce. We have the biggest percentage of child obesity in the EU. What will our children eat when they become adults? We must deal with the issue holistically, if we give our citizens their buying power back, I am sure they will pay a higher price for a local, high-quality product giving the incentive to buy organic."

Trout farmers participating in the Greek CoP have seen the changing consumer trends towards frozen or ready-made easier meals, foreseeing that demand for over the counter fish is diminishing. The following statement was made by the participant: "We have a hatchery and a small processing unit where we smoke and pack the fish. Our competition produce trout from December to April, because after that the river has less water making the upkeep of the fish not profitable, so they always lower their prices in April, when their farms must be emptied and restocked. Our waters are colder, we don't have that problem, but we cannot compete with the April prices, so we put our focus in the processing and packaging to differentiate ourselves from the market and profit from the added value. We are also investing in freezers to expand in refrigerated products. Market trends show that people tend to prefer easier, ready-made solutions rather than buying, cleaning, and cooking fish. Times are changing and if we do not realise this then we will not be able to sell our products."

Another researcher added that, "the processing regulations are very detailed and strict, with frequent inspections entailing increased costs not only for the certification but also for maintaining the certification, logistics, traceability, and accounting. I believe the organic sector started off with many expectations, so many other labels were introduced like "bio" fish, "eco" fish or "organic" fish, so the consumer reacted saying that they are all the same, they did not trust the product, so they turned to conventional, which are good and cheap. Another label used is "antibiotic free" and the chain supermarkets are also promoting their labels, so the consumer becomes confused."

A farmer stated: "with all the controls and analyses of the organic certification that have to be performed continuously, it is too big of a risk. I must sacrifice all my time only to deal with the bureaucracy."

Proposals for dealing with these setbacks were put forward from the Aquacultural Advisory Council (AAC) as recommendations to the EU to overcome these problems and were agreed upon by the participants. It was stated that "The next proposition is to set up a helpdesk at the

EU level to ensure that primary producers have access to clear and uncomplicated definitions/guidelines about possible designs, operational procedures, and permitted new technologies that are aligned with the directions in the Strategic Guidelines for EU Aquaculture.

"Work needs to be done through the value chain with citizens to increase learning and public understanding about organic aquaculture. Consumers must be aware of how important the meaning and value of organic production is, in order to promote Organic Aquaculture (OA)." Participants also made the point to encourage Member States to facilitate the license mechanisms for OA production, especially by establishing areas specific for developing OA while pursuing the decrease of the burden of bureaucracy for the licenses and developing and making available a map of marine regions with the potential for OA production. "Also, improve the economic livelihood of the OA farmer by helping Member States to define this and ensuring the payment for the delivery of public goods and ecosystem services which are associated to all sustainable aquaculture practices because they provide increased value to society."

3.7 Italy: plot-holders in peri-urban gardens in Puglia

The Italian CoP case is unique for various reasons. It is one of many other past and recent projects with the ambition to contribute the agroecological transition of Alto Salento territory.

3.7.1 Additional background on bio-districts

In Italy, the context of promoting bio-districts or bioregions[22] encourage a strong connection between conversion to organic, production and consumption of local, healthy, and tasty products, and sustainable or alternative forms of tourism. The important role bio-districts can play to support the development of the organic sector and to make organic values and lifestyle a driving force for sustainable territorial development is clearly acknowledged in the Italian national organic law issued in 2022. The Ministry of Agriculture devoted funds to supporting setting up and structuring bio-districts that can also access other types of funding (including CAP funds) (see for example Sturla (2019) and Sturla et al. (2024)).

More actionable knowledge is needed though to unlock the potential of bio-districts for territorial development and for further overall advancement of the organic sector (as also suggested by the recent European Court of Auditor's Report) (ECA, 2024). Despite the important role played by organics in recent local dynamics, local actors appear to not have considered setting up a bio-district in Alto Salento, where the CoP is located.

3.7.2 Details of the approach

The Italian CoP initiative has been established in an urban setting, in the agro-town Ostuni, in the Puglia region, which is also a popular tourist destination, mainly revolving around the idea

[22] A bio-district is a geographical area where farmers, the public, tourism operators, associations, and public authorities enter into an agreement for the sustainable management of local resources, based on organic principles and practices. The aim is to maximise the economic and sociocultural potential of the territory. Each bio-district includes lifestyle, nutrition, human relations, and nature considerations. See: Communication on an Action plan for the development of the organic production (COM (2021) 141 final); Communication on a long-term Vision for the EU's Rural Areas (COM (2021) 345 final).

of rehabilitating and ensuring the sustainable use of historical urban gardens through organic farming and other sustainable practices and initiatives promoted by like-minded actors. The existing initiative of the Bio Solequo cooperative has a focus on the cultivation of indigenous vegetable varieties with organic farming methods and collaborates with various actors including within the Ostuni municipality (which developed and funded a specific project on the gardens) and Slow Food Puglia.

Conversion to organic farming is at the heart of the CoP initiative and is encouraged at collective, territorial level, but other ambitions are also important. These include promoting the sustainable use of a specific public urban area of high socio-cultural and environmental value and establishing a successful model of multi-actor long-term collaboration, inspired by organic (and agroecological) values and principles. The latter aims to encourage (and become a local and regional reference for) organic and agroecological practices to be widespread at territorial level, promote sustainable tourism, promote sustainable diets, and ensure conservation and valorisation of local food traditions and biodiversity.

The CoP members are mostly plot-holders in the urban gardens. They are not all full-time farmers and many of them have professions in other economic sectors. Their interest in growing and the conversion to organic arises from different backgrounds and they have different objectives. For the functioning of the initiative, the presence, competency, and credibility of the local actor Bio Solequo cooperative is very important. Other stakeholders that are committed to supporting the CoP are also quite diverse but complementary and aligned in their visions and objectives. There were six meetings related to the project (see Table 3.4 next page).

3.7.3 Results

Water Access and Cost

In the beginning of the project, the most acute issue was water access. Plot holders didn't have access to adequate water to irrigate their garden plots and therefore had to petition the municipality that owns the gardens. With the intervention of CIHEAM Bari and Slow Food Puglia, their effort was successful both in resolving the water shortage and in reinvigorating the connection with the municipality. Over time, the plot holders have taken advantage of this foundation to make the municipality more receptive to other problems.

Once tested, the water showed good electrical conductivity, an acceptable presence of nitrates, a pH of 7.09, and an interesting presence of magnesium. Overall, it was nearly potable in quality. At first, it was also free, because the assignees are private citizens and non-profit associations who maintain and manage the gardens without making a profit and who shoulder the costs of cultivating the plants and whitewashing the walls. However, the municipality recently decided to charge a price for access; a fixed cost must be paid by each assignee equal to €135.60 per year plus VAT and a variable cost based on water consumption equal to €2.00 per cubic meter plus VAT (which is very expensive).

Table 3.4: Dates and topics of the meetings of the Italian Group

Date	Location	Specific topics/difficulties	Reason for difficulty	Solutions implemented
1 30 June 2023	GAL Alto Salento 2020 in Contrada Li Cuti sn, 72017 Ostuni	Bureaucratic issues with organic certification of community gardens Lack of potential mindset Water management	Diversification makes organic certification more complicated Natural heritage taken for granted Lack of attention from municipality	Discussion of group certification The new administration might be willing to intervene to make water more accessible
2 17 July 2023	Bio Solequo Coop - Giardini della Grata, Ostuni	Financial burden of organic certification Water management	Excessive costs for small producers Lack of attention from municipality	Successful meeting with the municipality to resolve water issue
3 12 September 2023		Technical and management aspects of organic vegetable cultivation Joint planning of sowing and transplanting for the fall-winter season	Need to speed up the process of coordination to guarantee the productive cultivation of winter vegetables	Discussion to contact assignees to gauge interest and ask if they need help with preparation operations for sowing/transplanting
4 13 November 2023	Bar Fanelli, Piazza della Libertà, Ostuni	Verify the state of the gardens, organise the crops for next spring Discuss initiatives to be launched to support the Project	Need to organise and coordinate effectively due to large number of potential ancient varieties (up to 250)	Evaluation of idea to form Association and to create an Apulian Horticultural Biodiversity Park
5 23 May 2024	Bio Solequo Coop - Giardini	Lack of organised roles and structure Manual labour involved with maintaining large areas Security and accessibility issues	Lack of resources from the municipality to manage Organisational issues *"like speaking a different language"* Privatisation mindset	Discussion of possible solutions: archaeological digs, tourist attractions, exchanges abroad, organisational strategies, funding acquisition team Strengthening important ties
6 1 September 2024	Bio Solequo Coop - Giardini	Lack of youth involvement in all stages of the process Issues with garbage in assignee plots Lack of spokesperson for assignees	Youth involvement limited to propagation of seedlings Overtourism in the old town ("there are more bars than houses") Lack of legal status of the group	First steps to establish legal identity of the group of assignees and to legally establish the Violet Eggplant Slow Food Presidium Strengthening of important ties

This price hike is unmanageable for assignees. As one member put it, "So we will only plant succulents, or prickly pears?" Another said, "It is clear that in the near future there is a risk of no longer having those nine active gardens, the opposite of the intent of the original project." Due to the critical nature of the problem, the assignees have already moved to begin addressing the issue. On 21 October 2024, the Free Committee of the Assignees of the Historical Peri-urban Gardens of the Municipality of Ostuni was founded, giving the plot holders an official spokesperson who can negotiate with the municipality on this and other issues. This spokesperson lost no time in drafting a strongly worded letter, detailing the Committee's response to the resolution raising the price of their water source. According to

the letter, “The Committee expresses its surprise (…) at not having been involved, as promised several times, before the adoption of the resolution, and hopes in the future to be heard before the Administration adopts further choices for the management of the allotments.”

It is hoped that this intervention moved the administration to adequately resolve the issue and that the plot holders will be able to meet with representatives of the municipality as they have in the past and negotiate their terms.

Garbage, toxic waste, and overtourism

Some of the land that the assignees are cultivating is either covered in garbage or toxic waste. The Committee has already begun to push the administration on this issue, saying, “In the garden assigned to [anonymous], for example, there is the presence of hazardous asbestos waste, reported several times starting from the certified email of 19.03.2018.” If these efforts prove to be successful, the administration could ensure future assignees receive clean and safe plots through investing resources into plot maintenance. The underlying issue for garbage, however, is overtourism, and therefore requires long-term planning and execution to be truly resolved.

Overtourism is increasingly becoming a problem in Italy. As a tourist town in a region heavily dependent on the tourism industry, Ostuni offers unique opportunities in terms of diversification of the gardens, but it also places a high amount stress on the environment, both directly and indirectly. At a recent event, an assignee made the following plea directly to members of the municipal administration: “The administration is fundamental in managing the whole affair. I live in the historical centre, and I am a fourth-generation farmer, proud of my origins. I became an assignee in 2019. I just want to say this: the historic centre is made up of more bars and BandBs than houses and we cannot focus only on the gardens, we must also give priority to the historical centre. We need a committee and to structure ourselves. When my garden was delivered to me, the land was covered in garbage. So, the Municipality should first guarantee at least one place free of waste that comes down from the nightlife of the centre.”

It is therefore important that the administration not only takes responsibility for providing assignees with land free of toxic waste and garbage but also examines the bigger picture and puts limits on tourism in the historical centre. One way to accomplish this could be to put a cap on the number of BandB rentals, but such solutions are not so easily implemented. According to the assignees, there are many who would rather replace the gardens with a parking lot for the increasing number of tourists. Many of the assignees have voiced their concerns with this threat throughout the CoP meetings, especially considering that there is already a large parking lot primarily for tourists directly next to the gardens.

Organisational issues

The peri-urban gardens of Ostuni are of archaeological interest due to the presence of ancient Messapian tombs, which for several centuries have been used as cisterns for rainwater. Furthermore, there is an ancient communal canal system to conserve water which some assignees have showed interest in rebuilding. The Ostuni administration has favoured the land recovery process, beginning to redevelop the area around the medieval walls, rebuild the old stone walls, and call together associations, enterprises, and citizens interested in participating in the project.

Much of the work to be done therefore pertains to the construction, cleaning, and maintenance of the infrastructure of the area to improve the area's security, accessibility, and useability for cultivation, while keeping in mind its historical value. As one of the facilitators put it, *"Many like cultural projects, we involve the museum, guided tours…but first we have to create the garden."* The assignees have already begun to actively monitor some of the redevelopment process and organise cleaning and general maintenance amongst themselves, but some assignees face heavier burdens of labour and costs than others due to organisational issues.

Those more active have begun to voice their frustrations over the unequal distribution of labour. According to one assignee, *"I always maintain everything because it is unclear where my garden ends and another begins."* Assignees also sometimes receive areas larger than they would prefer and that they are required to maintain regardless, making the difference even more pronounced. Furthermore, the fixed cost for the only source of irrigation is only distributed among the nine active assignees even though the well serves all the gardens.

In order to help resolve these issues, the assignees petitioned the administration at the most recent event where the CoP was present to organise a meeting where they would be able to discuss how to better structure the next tender to prevent "wise guys" who "would barely look at their own garden" from getting assignments, and to better define them.

Hurdles to organic group certification

Organic certification is expensive and a bureaucratic challenge for small producers, making it difficult for them to access organic price premiums. When a large variety of crops are involved, such as with the peri-urban gardens of Ostuni, the bureaucratic workload becomes even more unmanageable, especially with ancient varieties which may or may not be registered yet in regional seed registers. Some of the assignees, having professions other than farmers, are also not adapted to the "massacre of papers" they are required to complete that "creates hours of bureaucratic work, which then blocks the whole system."

Despite these challenges, the assignees were determined to obtain organic certification for the products of the Ostuni gardens. A principal reason for this is that tourists, seen as an important source of income diversification at such a well-known vacation destination, were perceived to be environmentally conscious by the assignees. Therefore, having certified organic products available was necessary to properly cater to their target market both directly and indirectly through restaurants.

Group organic certification, with lower costs and less red tape, is a viable alternative to traditional organic certification. This has only become possible since the new organic regulation. Group organic certification requires that the group of producers is a legal entity which is already complicated. The advisers were able to provide expertise on both fronts, playing an important role from the first CoP meeting in facilitating the group organic certification process. They were also able to assist CoP members in forming a connection with the relevant organic certification body, necessary to check that the internal controls of the group of producers are functioning properly.

Now that the Free Committee of the Assignees of the Historical Peri-urban Gardens of the Municipality of Ostuni has been founded, the plot holders will move forward not only to progress towards the organic group certification, but also to finish establishing a Slow Food

Community (and eventually Presidium)[23] based on the Violet Eggplant of Ostuni, which will use the certified organic status of the product as a key tool to raise its profile. Other farmers and actors, beyond the CoP, are taking part in this, helping to further expand the network of collaboration. It is also possible that obtaining organic certification will help strengthen the partnerships between the CoP and some of the organisations, projects, and initiatives that the advisers have been involved in facilitating connections with, such as the Leader Program managed by the Alto Salento 2020 Local Action Group, the BiodiverSO project of the University of Bari, other Slow Food chapters such as the Social Agricultural Slow Food Community of Vesuvius, and the FAO Mountain Partnership.

3.8 Hungary: winegrowers in the Balatonfüred-Szőlős region

Organic viticulture was chosen for the analysis of barriers to conversion. Table 3.5 summarises the grape area under organic production from 2020 to 2023.

Table 3.5: Area (ha) in organic grape production in Hungary from 2020 to 2023

Area (ha)/year	2020	2021	2022	2023
In conversion	595	622	690	584
Organic	1,462	1,360	1,181	1,327
Together	2,057	1,982	1,871	1,911

Source: KSH[24]

In 2023, organic viticulture was practised in Hungary on 1,911 ha, representing 3.17% of the total area of 60,123 ha vineyards. According to the 2020 agricultural census, 217 operators (individual farmers or joint enterprises) were producing organic grapes on an average area of 8.4 ha. Table 3.6 shows the development of the organic grape area over the last 10 years. Increase in conversion areas is mainly driven by subsidies (2016, 2019, 2022, where commitment starts on 1 January of the given year, marked green in Table 3.6).

Table 3.6: Development of conversion of grape area between 2014 and 2023 in hectare

Area/year	2014	2015	2016#	2017	2018	2019#	2020	2021	2022#	2023
Conversion	279	467	743	794	814	570	595	622	690	584
Converted	919	858	894	922	944	1,313	1,462	1,360	1,181	1,327
Together	1,198	1,325	1,637	1,716	1,759	1,883	2,057	1,982	1,871	1,911
Growth*		10.6%	23.5%	4.8%	2.5%	7.0%	9.2%	-3.6%	-5.6%	2.1%

#Columns in green are the first years of a subsidy programme
*Growth compared with year before
Source: Hungarian Central Statistical Office[25]

[23] The concept and the pathway are explained on the Slow Food website: https://www.slowfood.com/it/communities/.
[24] https://www.ksh.hu/stadat_files/mez/hu/mez0038.html.
[25] https://www.ksh.hu/stadat_files/mez/hu/mez0038.html.

Vine producers converting to organic choose between two strategies:

1. Start the conversion on 1 January, from which date they will receive the subsidy.
2. If they know that they want to participate in the support programme and are interested in selling their grapes organically, they can declare an earlier start of the conversion, in the previous autumn, preferably before the harvest. They get conversion aid for 3 years, but the 36-month conversion period can end a year earlier.

The amount of support for viticulture for the period 2022-2024 is set at €1,132/ha for the three-year conversion period and €1,097/ha for the maintenance period.

It is not known which varieties are involved in organic conversion or the ratio of traditional to resistant varieties. In the biggest wine district, most probably vineyards with resistant varieties must be present. In the wine districts, where origin labelling is relevant, they use traditional Vitis vinifera varieties.

Three different terms are used to describe organic farming in Hungary.

- The organic movement in Hungary has traditionally used the term **"bio"**, which is still the preferred term in the farming community.
- The translation of the EEC Regulation 2092/91 into Hungarian introduced the term "**ökológiai**" (ecological). The sectoral administration and academia prefer the term 'ökológiai'.
- Non-sectoral actors often use the term **"organikus"** (organic). This is used intentionally or unintentionally, but ultimately to separate themselves from bio/öko/ökológiai production. The adjective "organikus" is most often used for processed food or wine, mostly by operators who have lived in the English-speaking world for a longer or shorter period of time and who have, by definition, encountered the adjective "organic".

There has been no organic promotion campaign in the past and awareness of the EU organic logo is low. According to research conducted by Györéné Kis (2024) among organic consumers (i.e., not based on a representative survey of all consumers), the awareness of the EU organic logo was 45.9%, while that of the logo of the domestic organic control bodies was 71.7% and 68.6%. Research by Török et al., (2019) has shown even lower awareness of the EU organic logo.

3.8.1 Additional background on wineries and markets

Hungary's wine classification system is structured into several hierarchical levels, each described by geographical and quality attributes. Hungary is divided into larger wine regions that have similar climatic and geographical characteristics. The wine districts are the primary units of wine production. Hungary has 22 recognised wine districts, each with unique terroirs and grape varieties. The Wine Community is the local association of grape growers and winemakers within a wine district. They play a crucial role in regulating production practices, maintaining quality standards, and preserving the traditions of their respective areas. The National Council of Wine Communities (Hegyközségek Nemzeti Tanácsa, HNT) oversees these local bodies, ensuring adherence to national and EU regulations.

Grapes for wine production must be processed immediately, or the product is lost. Organic grapes are typically sold to wineries in Hungary and are not typically exported. Often the processing winery and the grape growing farmer work closely together.

In 2024, the number of certified organic wineries was 68. Organic wineries produce grapes themselves or buy grapes from winegrowers linked to the winery, relying mostly on well-established connections. There is no producer organisation active in organic wine production in Hungary, but there is an annual organic wine competition organised by the Hungarian Organic Wine Association every year.

Organic wineries in Hungary work with many varieties, of which they produce small quantities of wine. These are sold on the Hungarian market, mostly through direct sales, either locally (e.g., in restaurants) or through specialised wine chains. Organic wine from Hungary is typically not or only rarely available in discount chains. For some wineries, production for export markets is typical: either through wine shops in Europe or overseas.

There is no data on domestic organic wine consumption. In general, organic food purchases may account for 0.75-1% of retail sales. There is no data on the size of market for organic wine or on how important organic wine consumption may be to consumers. It is likely that that interest in organic viticulture is driven by conversion support and not by the possibility of selling products at premium prices.

The National Council of Wine Communities Interbranch organisation published a strategy for the Hungarian wine and grape sector in 2016 (HNT, 2016). The strategy sets a target of 10% of vineyards converted to organic farming by 2025, up from 2% in 2016. The close link between viticulture and the wine sector is illustrated by that the analysis of the wine sector is always linked to the analysis of the wine market.

The global wine market is currently shrinking, whereas other alcoholic beverages (fruit-flavoured beers, spirits) have gained in importance.[26] There is a clear trend towards the spreading of non-alcoholic beverages (even non-alcoholic wines). In such a changing market environment, between 2009 and 2023, 86% of the €411 million EU funding for plantation modernisation for developments in the grape and wine sector resulted in a significant increase in the proportion of resistant varieties (e.g., Bianca, Aletta, Genorosa), which do not produce quality wine. There has been almost no spending on promotion (Héjja, 2023) of the wines made from these resistant varieties.

A special government commissioner is responsible for the Wine Marketing Strategy, which was published in 2023 (Rókusfalvi, 2023). The strategy refers to environmental awareness and sustainability in relation to young people and proposes the development of a certification system. It uses the word „organikus" although the public (shorter) version of the document does not refer to organic wine or organic viticulture all. The not-public long version clearly describes what organic wine means.

The Wine Regulation of 2021 defines the concepts of "natural wine" (natural sparkling wine too) and "Pét-Nat" (pétillant naturel wines) (AM Decree 26/2021 (29 July 2021). A natural wine

[26] Organic Wine Market Size, Share and Trends Analysis Report, 2022 at https:// https://www.grandviewresearch.com/industry-analysis/organic-wine-market-report.

is a semi-sparkling wine or sparkling wine that is certified organic and meets some additional conditions: e.g., it must be hand-harvested, aeration must be allowed, carbon dioxide, argon, or nitrogen must be used for a protected atmosphere, it must have a maximum total sulphur content of 40 mg/l, it must be marketed exclusively in glass bottles, bag-in-boxes, or KEG barrels. According to this regulation, wines can only be labelled natural wine or Pét-Nat if they are certified organic. However, despite this clear definition some natural wines on offer in web-shops and traditional shops are not certified organic and there appears to be no enforcement of the specifications in the Wine Regulation. Natural wine is somehow confused with organic wine, which undermines the credibility of the organic product and control system. Operators in the sector pointed out that the EU regulation on organic production does not imply that organic wine is the same as natural wine, and that most of the domestic organic wineries do not follow the natural wine trend at all.

3.8.2 Details of the approach

The observed group consisted of nine wine producers from the Balatonfüred-Szőlősi Wine Community. This wine community is a part of the Balatonfüred-Csopaki Wine district. The group is essentially a producer group in a white wine producing region where the main grape variety is Welschriesling. Of the nine participants, only one farmer was certified organic.

The farms are all mixed horticulture and viticulture producers (see also Table in Annex I). They have between 2 and 80 ha land, of which between 2 and 25 ha are for vine. Other crops grown include grassland (including rough grazing) (3 farms), horticulture crops (3), root crops (2) fodder crops (1), and arable crops combine harvested (1). 6 of the 9 farms also have some on-farm processing and retailing, often as a family run winery. On most farms, between 80 and 100% of products are sold directly to the public.

Three farms also have tourism enterprises. The Balatonfüred-Szőlősi Wine Community is one of the most prominent wine regions in terms of tourism. Although tourism used to be clearly characterised by seasonality linked to holidays, in the last decade much has been done to introduce a full tourist season, and wine tourism has a role to play in this.

Most members have farming and winemaking as their main occupation, and market between 80 and 100% of the wine directly to consumers. One group member was a young farmer who had started growing grapes and making wine in the last two years, and some other had been running a multi-generational winery. Together with other family members they process the grapes in a family-run winery, and mostly sell the wines in the region, for example in the local hospitality sector. Like most national wineries, they produce and aim to market a full range of wines (several white wines, rosés, and one or more red wines). If they do not grow certain grapes themselves, they buy those in from other producers.

The first workshop with vine producers introduced agroecological practices and included a discussion of concerns that were discussed further in the second workshop, complemented by one expert relevant to the sector. The expert interviews covered the meaning of the different terms for groups of stakeholders and in the national winemaking strategy, the definition of “natural wine” and “Pét-Nat” (pétillant naturel wines) in the Wine Regulation of 2021.

Table 3.7 Summary of the group activities with the vine growers in Hungary

Activity	Date	Detail
First CoP meeting	27 April 2023	Workshop with farmers: Introducing agroecological practices. Long term planning or "investor" approach in farming in the region. Cooperation among the wineries. Subsidy programs. Certification. The workshop included several presentations, and following the discussion of the related problems.
Second CoP meeting	5 February 2024	Workshop with farmers: Differences between understanding of "bio" and "öko." Plant protection in "bio" production. Agroecological practices in "öko" agriculture. Marketing strategy of the small/medium size wineries. Problematics of resistant varieties. This workshop aimed to list all issues CoP members link to organic grape and wine production
Expert Interview	Autumn 2024	Wine marketing, using resistant varieties Expert interviews get more information about the current wine marketing strategy and the use of resistant grape varieties. Based on the expert interviews, an overview of the most relevant sector-specific national regulations and standards was created.
Literature research	Autumn 2024	Where and how can we find any reference to organic wine: Regulations in the wine sector. Using EU certifications schemes (PGO), Wine marketing strategy.

3.8.3 Results

This is a summary of what farmers have said on the subject. Unfortunately, they did not come up with any solutions; in most cases they feel that solving the problem is not up to them. In a partly over-regulated environment and partly conflicting rules, they are focused on maintaining and serving their existing markets and regular customers. The issues raised by CoP members and next steps were explored in expert interviews.

Identification (name) of the production method

In the Hungarian language, different terms are typically used in parallel for the term organic farming, with slightly different meanings. For the group members, each term had a precise meaning. They use the adjective "bio" to describe the production system, the rules of which are laid down in EU Regulation 848/2018, according to which the two main diseases of grapes can be controlled by contact fungicides also used in conventional agriculture, such as copper and sulphur. The production system labelled "bio" was unattractive for CoP members, as it requires 7-10 spraying events per season, sometimes even more, to maintain full foliar cover and protection. Non-organic crop protection technology is based on 4-6 spraying rounds, which results in less soil damage and less soil compaction, requires less energy and fewer working hours. Frequent spraying is clearly discouraged and described as a negative aspect of the "bio" system (this applies only for grapes and some fruits!). The term "öko/ökológiai" is used to describe a production method in which crop protection is based on the natural resistance of the crop and the ecological balance of the environment. In "öko/ökológiai" production, minimal chemical crop protection is used, and preference should be given to the use of resistant varieties. CoP members do not consider "bio" and "öko/ökológiai" production to be the same.

The expert interviews confirmed that there is a difference in meaning between “bio” and “ökológiai” and “organic,” most notably when one wants to distinguish oneself from some of the businesses on the market. The terms also cause some confusion in the Hungarian Wine strategy (see above). By “organikus” wine, the authors of the strategy mean “ökológiai” wine. The organic sector, however, still does not understand the aim of using this terminology and feels that it is confusing.

Use of interspecies resistant varieties

CoP members raised the issue of the use of interspecies resistant varieties. The use of interspecies resistant varieties in Hungary dates back several decades. Interspecies varieties have been developed by crossing European wine grapes (Vitis vinifera) with other species of the genus Vitis. While there are no professional objections to the use of rootstocks that are phylloxera resistant, lime tolerant, or drought tolerant, there are still negotiations about the use of wine grapes. In the past, these varieties were mainly recommended for domestic use or for mass production**.** The most widely planted resistant varieties in Hungary's lowland wine district (Aletta, Bianca, Genorosa, Kunleány, Zalagyöngye) are almost not used in this wine district where the group is located. In this wine region, however, there is a winery that has made it its mission to use and market resistant varieties (Solaris, Hibernal, Füredgyöngye).

CoP members point out as a problem that consumers in Hungary are not familiar with the resistant varieties. In the case of wine sold on the local market, a lot of work has been invested in promoting the names of the wineries and, as described earlier, they are seeking to market a full range of wines under their own winery name. It is difficult to fit into this production structure to grub up entire vineyards and replant with new varieties. Until the replanted vineyards come into production, at least 3 or 4 yield losses must be expected. The plantation structure modernisation programme does not allow grafting, which is a much faster solution, and CoP members are aware of an insufficient and inadequate supply of propagating material.

CoP members also point to that, in accordance with national practice, wine is named according to the name of the grape variety. However, resistant varieties are either unknown or have a negative perception. Marketing related to the introduction and promotion of resistant varieties is lacking. The CoP members said that they know of vine-growers and winemakers who work with resistant varieties, and they even know that the Research Institute of Viticulture at the University of Pécs has a rich collection of resistant varieties. Such resistant varieties are already available and have almost the same aroma and taste experience as the traditional varieties. The variety collection has a few plants of each variety, but medium sized plantings do not exist. In addition, there is insufficient domestic production of propagating material, and propagating material for planting often has to be sourced from abroad—another barrier to the spread of domestically bred resistant varieties.

The expert interviews covered the use of resistant varieties that have long been advocated by grape breeders. In recent years, several varieties (Genorosa, Aletta, Jasmin, Hibernal) have appeared on the market and are less widely rejected as those that appeared 20 or 30 years ago. The use of these varieties has obvious environmental advantages, and they are included in the development plans for viticulture, but not mentioned in the wine marketing plan (Hajdú E., 2018).

The experts highlighted that the establishment of vineyards is strictly regulated by the EU (Commission Delegated Regulation (EU) 2018/273**)** and by national law, including through the

definition of the varieties that can be planted in different wine regions and the specific conditions of planting support schemes. The National Council of Wine Communities Interbranch publishes a list each year with four priority varieties for every wine region, which, if planted, will give the farmer an advantage in qualifying for investment aid. There are no resistant varieties among those priority varieties.

Perception of existing organic wine producers

CoP members acknowledged the achievements of current organic farmers, pointing out that they often find that these farmers operate against many constraints (traditional varieties, high cultivation costs, high cost of purchasing innovative inputs). They stressed that viticulture and winemaking as a business cannot be loss-making in economic terms, so the market must pay for the work and costs invested in the product. The commitment and awareness of organic producers is very important.

Assessment of previous support schemes

CoP members are familiar with agri-environmental support schemes. Many of them participate in the relevant agri-environmental schemes, which are supported in parallel with the organic programme with almost the same amount of aid. They point out that the measures linked to the programmes are not always coherent. Examples are given of the requirements for plantations, such as compulsory bird boxes at the edge of the plantation, which are mostly left empty, while in the middle of the plantation there are many bird nests.

Competition for land

A particular challenge in this wine region is the emergence of many real estate investors in the region, due to tourists buying up properties in the countryside, previously often used for vine-growing, with a view to building holiday homes. Rising property prices in this region are making it difficult to develop farms.

Disturbance caused by other trademarks

CoP members highlighted the many other logos displayed on vine labels confusing consumers. One such logo that was of concern to them is the "vegan" label. Wine is a purely plant product and, while it is understood that there may be technological aids, such as egg whites, gelatine, or isinglass or water bladder used for clarification, some of which are of animal origin, these are not typically used by domestic wineries.

The production of natural wine as a wine-making trend has also emerged in recent years and is having an impact on the organic wine market. On the one hand, the leading producers of natural wine are themselves organic producers. However, natural wines are divisive products in their appearance and style. They do not conform to customary wine specifications and have difficulties passing some wine tests. Many consumers and some professionals see them as simply wines made with poor technology—this perception also applies to organic wine.

Media

The media has a major role to play in educating consumers, explaining to consumers the complex issues associated with agriculture and informing them of the benefits associated

with the use of resistant varieties. The media has a particularly important role to play in correctly assessing the seriousness of problems. Often, click-hunting takes the focus away from the issues. When the media writes about organic production, they often make exaggerated claims. When they use the word “organikus,” they seem to want to distinguish themselves from the term “bio/ökológiai.”

The national wine marketing strategy

CoP members are familiar with the national Wine Marketing strategy. It does not seem that the Hungarian Wine Marketing Agency devotes any resources to promoting resistant varieties or to introducing organic wines. Perhaps this is the most important reason that keeps wineries away from the transition to organic farming: there is no consumer demand and no intention on the part of the Wine Marketing Agency to include organic wine marketing among the priority product areas.

The Hungarian Wine Marketing Agency has been found to be paying little attention to the promotion of organic wine. Decree 26/2021 of the Ministry of Agriculture for the wine sector requires organic certification for natural wines (and Pet-nat wines)— conflating natural wines with organic wines causes further confusion. Moreover, looking at the current market offer, some of the natural and Pét-nat (pétillant naturel) wines on the market are not certified organic at all. The Ministerial Regulation does not specify which organisation should verify the existence of organic certification.

The expert interviews made clear that the authors of the wine marketing strategy are thinking of using geographical indications. The e-ambrosia database currently contains 38 PGI or PDO product descriptions related to wines from Hungary. Organic wine is not considered a specific product in this sense, whereas PDO and PGI products are, and the marketing strategy focuses on their promotion. According to the strategy's authors, PGI and PDO certification of wineries is expensive, and operators cannot afford the cost.

Although the authors of the wine strategy cite international studies that predict a steady expansion of the market for organic wines, the wine strategy does not recognise the Hungarian consumer who is able to pay and is aware of the environmental impact of wine and takes this into account in their purchasing decisions. In relation to organic producers, the strategy considers that, overall, they farm on small plots of land without adequate buffer strips. This view exists for the Hungarian organic agriculture as a whole: no studies have been carried out to characterise the farms earlier. ÖMKi has started research about the economic performance of organic farms. The research has already confirmed that the concentration in the organic sector is much higher than in the non-organic sector. Organic certification is more likely to occur for certain types of farms (for example, more than a quarter of Hungarian beef cattle are kept on farms with some form of organic activity, while only 3% of the cattle herd is organic).

3.9 Romania: arable farmers working with INTER-Bio

The National Action Plan for Organic Agriculture in Romania of the Ministry of Agriculture and Rural Development (MADR) aims to develop organic production in the country. It includes several key objectives:

- Increasing organically cultivated areas and organic products with high added value.

- Linking the use of natural resources with high ecological value (grasslands, forests) and the financial support granted per area to obtain organic products with high market value.
- Diversifying organic production, especially in less represented sectors (vegetables, fruits, milk, eggs, and processed foods).
- Integrating organic agri-food production into market supply chains and increasing the share of the processing sector.
- Advising and training farmers for the organic farming system.
- Developing local and regional networks to support organic farming and supporting farmers' associations.
- Educating and informing consumers about certified organic products.
- Adapting research to the needs of the organic farming sector and increasing consumer confidence through fraud control and prevention measures.

3.9.1 Additional background on organic agriculture in Romania

Several studies have looked at aspects of organic agriculture in Romania in the context of the 25% targets and the National Action Plan for Organic Agriculture in Romania of the Ministry of Agriculture and Rural Development (MADR). This plan aims to support farmers and increase incomes for small- and medium-sized farms, thus contributing to a more sustainable and environmentally friendly agriculture in Romania. The literature indicates some results in implementation:

- Subsidies and financial support: Organic farmers benefit from subsidies and direct area payments to encourage conversion to organic methods (Ursu et al., 2022; Fortea et al., 2022; Vasile et al., 2015).
- Training and consultancy programmes: Courses and consultancy sessions have been organised for farmers to help them adopt organic practices and certify their products (Fortea et al., 2022; Vasile et al., 2015).
- Promotion of organic products: Information and education campaigns for consumers about the benefits of organic products to increase market demand (Stoleru et al., 2019; Chiciudean et al., 2019; Brata et al., 2022; Petrescu et al., 2017).
- Research and innovation: Investing in research projects to develop more efficient organic farming technologies and practices (Ursu et al., 2022).
- Development of local markets: Support for the creation of local and regional markets where organic farmers can sell their products directly to consumers (Polimeni et al., 2018; Polimeni et al., 2022; Ionel et al., 2019).
- The role of innovation hubs: Based on existing experience in implementation of innovation ecosystems and living labs in Romania, the study discusses critical factors required for a successful transformation of agriculture, with the aim to fill existing research gaps on agroecological techniques, including the role of new business models in this area (Linau et al., 2023; Linau et al., 2024).

Box 2: The INTER-Bio Consortium

INTER-Bio is an important initiative for the promotion of organic agriculture in Romania. It brings together regional and national clusters working together to develop and support organic production. As an interprofessional organisation for organic agro-food products, it aims at promoting, representing, protecting, and facilitating the common interests of the members of the organisation in working with the central administration bodies and with other domestic or international associations or federations. Cluster members are:

- Bio Danubius Cluster: promotes organic farming and is internationally recognised for its innovations in agroecology.
- BioNEst Cluster: specialised in organic honey and bee products in Moldova.
- Bio Concept Cluster Prahova Valley: centre of organic agriculture in the South Muntenia region.
- BIO Oltenia Cluster: focused on organic farming and eco-tourism in the Oltenia region.

INTER-Bio also has eleven associate members that contribute to the development of the bio agri-food sector in Romania, for example by providing expert advice.

The organisation aims to undertake a series of activities including supporting and promoting manufacturers, processors, and traders; representing members interests to increase economic competitiveness and to create new skills; supporting members to do export and with internationalisation; providing professional training to members; participating in national and European networks, increasing the research, innovation, and development potential of industry members; integrating organic farming into the other branches of the bio-economy; organising events and seminars for farmers and consumers to inform about the benefits of organic farming; providing advice on sustainability, innovation, digitisation, and raise public awareness of the benefits of organic farming.

Inter-Bio is part of the PROSME consortium of the European Enterprise Network, financed under the Single-Market Program. It assists enterprises in their transition to more economically, socially, and environmentally sustainable businesses, while supporting digital innovation and increased resilience, so that SMEs become competitive on the European Single Market and global markets. Assistance includes identifying European and international business partners, developing projects, accessing European funding programmes and taking part in the European policy-making process.

INTER-Bio actively participates in several European and national projects, contributing to the research and development of organic farming, including WE HUB, OrganicTargets4EU, agroecology Transsect, OrganicClimateNet, OrganicAdviceNetwork.

For more details see https://inter-bio.ro/en/home/

3.9.2 Details of the approach

The group consisted of nine cereal farmers of the BioDanube cluster of InterBio of between 64 and 15 ha (see table in Annex I). A first meeting of the group was held in April 2023, followed by interviews with these farmers at various events at various events, such as:

- Fairs in Romania (Agriplanta, Indagra) or outside (Biofach, Seoul Food, Kavala)

- Conferences and seminars related to celebration of organic days (23 September and 15 October each year)
- Meetings at the cluster levels and innovation hubs
- Ad-hoc seminars organised by Romanian Network for Rural Development (RNDR)
- During conferences related to smart agriculture.

The partner has also summarised some observations from some events, for example at a workshop with experts and farmers about access to advice and information on 15 May 2024, Ministry event on the market situation between 8-10 of July 2024. In addition, 9 expert interviews were carried out.

3.9.3 Results

The discussion at the first meeting of the group identified four main areas of concern, listed here in order of importance to the farmers as indicated by an informal vote in the meeting: Regulations issues (7 votes), knowledge and information issues (2 votes), demand and market issues (2 votes), and production and commercial issues (1 vote). The following discussions showed clear links between the regulation and knowledge issues.

Regulation, administrative issues, and bureaucracy

The discussion under this heading highlighted a strong dissatisfaction of the farmers with a lack of subsidies and support from the government but also with the complex certification procedures. Obtaining organic certification involves numerous documents and checks, which can be daunting for small and medium-sized farmers. Interviews and debates with farmers confirmed that the bureaucracy in organic farming in Romania is significant and a major obstacle for farmers to go organic.

Farmers expressed also that the compliance requirements are too harsh and are applied in a manner that one felt is “designed rather to discourage such practices. The sanctions system is obscure and not very well communicated on issues such as levels of sanctions.” Multi-year sanctions are applied retrospectively, not only to traders and processors but also farmers that are creating tensions on the supply chain. And if a tenant farmer loses land due termination of the lease contract, the subsidy grant must be repaid for the whole contract period, not only from the year that the area is withdrawn from certification.

One farmer was looking for a guidance document on how to avoid sanctions that makes this a more transparent and predictable process but does not know where to find such a guide, because it does not exist.

Part of the frustration with the administration are also long delays in the paying out of subsidies (half a year or more), as well as the general feeling that the Ministry is not dealing with organic farming with the professionalism required. Also, the application to get grants is considered complicated, often requiring specialist assistance, and discourages farmers to apply.

One farmer expressed that there is confusion between organic certification and the less strict procedures for natural certification or other quality schemes. Another said that farmers in the Danube Delta cannot apply chemical fertilisers, because the Danube Delta Biosphere

Administration prohibits such fertilisers based on an, in his view outdated, regulation from 1992.

Many farmers are afraid to publicly formulate criticisms afraid of a more punitive attitude. But they also look to the ministry for further support, e.g., expanding aid schemes to investments and processing, central and local capacity building, and management of existing schemes.

Knowledge and information

Discussions noted a general lack of knowledge for sustainable farming methods. Farmers mentioned a general lack of knowledge about agricultural machinery and inputs for organic agriculture as well as lack of knowledge about organic in the regional agriculture administration and a lack of interest in explaining and communicating legislation from the Ministry of Agriculture. Farmers feel they rely mostly on exchange with other farmers, and some experienced farmers become consultants. The lack of information also relates to the changing conditions in European markets conditions.

Major gaps were expressed in education and knowledge, impartiality of consultants, absence of public consultancy, lack of a network of public and private consultants with expertise in the field, lack of interaction with consumers, green manipulation, international harmonisation of organic products, and the regular updating of the Organic Farming Consultant's Guide, Knowledge and Interaction Platform, and catalogue of inputs for organic farming.

Production and commercial issues

Under the heading of production issues, scarcity of water, drought, and climate change were mentioned that require a system to manage water supply and water conservation. A further issue mentioned was soil cultivation and management, recognising that organic farming without the use of ploughing can lead to some reduction in the options for organic. One farmer said there is more need for mechanical cultivation with high use of fuel in organic to cope with weeds and weed grasses.

There are also structural issues on some farms, where plot size, location or activities in the vicinity of the farm prevent certification or make it more difficult. As another managerial problem noted was the inability to raise money and get financial support. While there are government subsidies available, many farmers find these insufficient; it remains difficult to access additional funds for modern farming equipment and convince banks to get credit lines.

Market and demand issues

The difficulties in finding buyers and establishing reliable supply chains were noted in much of the discussion. Due to the war in Ukraine, the demand in the grain market has decreased dramatically, and cereal farmers are unsure about the future basis of their business. Farmers are uncertain and believe that there is low demand for organic due to inflation, changing consumer trends, and fear for an economic and financial crisis in Europe, which influence many of their main buyers that are from EU countries. This relates to a decrease in the price of organic products due to lower propensity to buy organic.

Farmers expressed concern about deteriorating conditions in European markets for cereals combined with inconsistent measures to regulate flows of cereals within the EU market and

new constraints regarding imports of cereals with GMOs infestation from the Eastern border of EU for example. Farmers were also concerned about unfair competition from other businesses that rely more on greenwashing then genuine improvements of practices, while organic farmers are suffering because their investment in certification is not recognised. Unfair competition is also referred to in the context of some organic imports from Ukraine that are allegedly not properly certified.

One suggested opportunity could arise from developing a market recognition of the origin of the products (terroir combined with goods standards). At a meeting in the Bio Danubius Innovation Day in 2023 one farmer remarked: "Faced with a market entry problem outside as a small farmer, I may not be able to develop and invest more." Another farmer remarked that "the market is driven by oligopoly retailers, reducing the farmers' capacity to innovate, experiment, and adopt new technologies." Farmers also expressed that they need more market information, because export is vital for them: "We need to rely on advice from the export advice network inside the country but also outside. Many times, we are invited to participate in an international fair, but we go unprepared." They pointed to the example of a Swiss Romanian program to create regional export centres in the country in 2017-2019, which acted an export business incubator with reliable expertise, but which no longer exist.

Discussion about value chain governance at a Ministry meeting in July 2024

Between 8-10 July 2024, the Ministry of Agriculture and Rural Development organised an ad-hoc seminar in Sinaia, focused on the relaunch of the consumption of organic products in Romania and the role of large distribution networks in this process.[27] The event was well-received by producers and processors in the organic sector, including INTER-Bio members who advocated for a realistic and collaborative approach between organic retailers and producers. They were concerned about a certain lack of encouragement and motivation of farmers for certification in the organic farming system throughout the supply chain.[28]

The seminar highlighted the importance of strategic collaborations and structured dialogue to ensure equitable access of organic products on supermarket shelves and to stimulate the consumption of organic products. Farmers' wishes regarding access to the shelf in equitable conditions and at an incentivising price for their efforts were presented. In the view of many farmers, the survival of the sector is a matter of sovereignty and national food security. They requested that supermarkets reconsider their current policies and promote authentic Romanian products, inspired by other successful European models, thus protecting and stimulating local production. One INTER-Bio member remarked: "Supermarkets in Romania should be inspired by forms of collaboration between organic producers and retailers that can provide greater confidence to consumers."

Our farmers, members of the clusters, also drew attention to the issue of sanctions, often exaggerated or arbitrary, bureaucracy, and updating subsidies to cover the income losses resulting from the practice of organic farming.

[27] https://inter-bio.ro/ro/colaborarile-strategice-intre-retaileri-si-producatori-de-produse-ecologice-din-romania-in-centrul-dezbaterilor-nationale-dedicate-sectorului-bio/.
[28] https://inter-bio.ro/ro/colaborarile-strategice-intre-retaileri-si-producatori-de-produse-ecologice-din-romania-in-centrul-dezbaterilor-nationale-dedicate-sectorului-bio/

Organic certification of pasture

Organic certification of pastureland is a complex but important subject for Romania. Pastures represent a significant part of the agricultural area (5 million ha), and their proper management is considered essential for preserving biodiversity and preventing soil degradation. Several issues including low uptake of related eco-schemes and a lack of demand for organic livestock products prevent more pastureland entering the organic system.

Farm management and generational change

The age and aging of farmers is recognised as a serious problem in Romanian agriculture; more than half of the active farmers in Romania are over 60 years old. This situation poses significant challenges for the future of agriculture, as young people are less and less attracted to this field—this also affects organic farmers. Many farmers who are already in organic farming or in transformative forms give up the business when they retire. They have accumulated knowledge but they have no one to pass it on. Many young people are not attracted to agriculture and the rural areas. However, examples exist of people who were previously not connected with farming taking on the challenge and became successful farmers. Although there are initiatives to support young farmers, including European funding and vocational training programmes, discussions indicate that more effective policies are needed to encourage younger generations to get involved in agriculture.

Adoption of digital technologies

Digital technologies in farming may contribute to creating opportunities including for young people, but from the farmers point of view barriers must be noted:

- There is need for high initial investment for equipment, software, and training. This can be prohibitive for any farm with low profit margins, including organic ones that also need to pay for certification costs. There is ongoing cost for maintenance, updates, and subscription fees.
- The rural areas where many organic farms are located lack reliable high-speed internet, crucial for many digital solutions like cloud computing or real-time data analysis, and can suffer from unstable or insufficient power supply.
- There is often a lack of technical know-how among farmers, especially older generations combined with limited access to training or ongoing technical support.
- Many digital agricultural technologies are developed with conventional farming in mind and adapting these for organic standards, which often prohibit or restrict certain technologies or inputs, requires further research and development.

3.10 Discussion of results and conclusions

For the discussion of the results on factors impacting on decisions related to organic conversion or staying organic, we used a combination of two frameworks from the literature. Both were aimed at developing policy recommendations using empirical work.

Stephenson et al. (2022) aimed to identify where action or change is needed using a survey of 615 participants of the US Environmental Quality Incentives Program Organic Initiative (EQIP-OI) (Stephenson et al., 2022). The survey respondents were either certified, in conversion, or not converting farmers. The authors grouped major and minor obstacles identified into

spheres of influence: personal, farm level, and different aspects of external influences that are outside the farmer's level of control.

Möhring et al. (2024) reviewed 120 empirical studies of the adoption of organic farming and 183 policy recommendations in those studies and evaluated them using other indicators of development for the countries. The authors distinguished between factors related to the choice of the farming system, the actual production process, transport and processing, and the sale of the produce to consumers. They presented a synthesis of evidence-based recommendations that are related to actionable leverage points for food system and policy actors (Möhring, Muller and Schaub, 2024).

Both perspectives have strong similarities in the categories used and were combined in the presentation of the observation of the focus countries. In the section on farm-level barriers or obstacles we included observations related to technical and personal factors, which combines those influencing the conversion decision as well as managing a farm organically and maintaining organic management. The external spheres of influence have been divided into observations related to the marketplace, the local and regional infrastructure, and administration and policy. Findings have been contrasted with a limited selection of other studies.

A limitation of our largely qualitative approach is that the listing presented here can only highlight factors that are potentially influential but cannot indicate how widespread or how important these factors are.

3.10.1 Farm-level obstacles and barriers

Farm-level barriers were mentioned in most focus countries and include many that have frequently been mentioned in other studies, such as weed management, pest and disease control, managing soil fertility, reduced yields, and planning crop rotations. Critical were also economic issues, which are strongly influenced by factors outside of the farmer's direct control, particularly in relation to the organic market and policy support. Mentioned was also the learning processes and some personal issues. Table 3.8 presents the main issues at the farm level that were mentioned in the national reports.

Technical aspects of crop production

Several farm-level barriers were reported from the converting arable farmers in Austria, both in the group discussion and in individual interviews. An important concern centred around the fear of higher weed pressure and related concerns about the necessary investments in new machinery. One farmer's answer illustrates the learning taking place: He at first raised his initial concerns about the labour requirements for mechanical weeding but then reasoned "[…] when you count the fertilisation and pest control in conventional production, that alone means six runs through the fields." Other comments referred to the lack of experience with mechanical weed control and organic cultivation methods as barriers. The suggestion to have more affordable equipment indicate that the farm-level concerns about mechanical weed control also have a regional dimension in relation to opportunities to learn as well as availability of equipment. In the Austrian farmer interviews, a lack of knowledge of preceding crop effects, especially possible effects on weed abundance in the subsequent crop was raised too, pointing to the need for better knowledge on the planning of crop rotations.

Table 3.8: Farm-level factors mentioned in the national reports

	AT	DE	DK	FR	GR	HU	IT	RO
	Arable	Various sectors	Various sectors	Fruit/wine	Aquaculture	Viticulture	Urban gardens	Arable
Weed management	X		X	X				
Pest and disease control	X	X		X		X		
Managing soil fertility	X		X	X				X
Reduced yields			X	X				
Planning crop rotations								
Feeding livestock		X	X		X			
Economic feasibility of organic/conversion		X	X	X				X
Investment needs	X							
Additional labour requirements	X	X		X				X
Farm structure not suitable for organic		X		X				
Learning process			X	X				
Lack of knowledge of organic	X							X
Partners and Family	X	X	X		X			X

Source: Own data based on national reports

The Danish advisors who had carried out conversion check visits reported that many farms wanted to discuss practical aspects of plant production. Asked separately what the farmers considered to be barriers to conversion, they also mentioned weeds—also the control around the farmyard—and the availability of organic fertiliser as well as the standards' complexity around fertilisation (see also below). They reported that farmers are nervous to convert and are afraid of being limited in what plant nutrient sources they can use and the resulting limiting of yields.

The German advisors reported initial talks revolving around technical details. Farmers had concerns about the effort and capital required at the farm level, as well as concerns around the prohibition of pesticides, which implied more time required, more investment and higher staff costs. They have doubts about the technical feasibility of the conversion and ecological practices. This can be a reason why farmers do not proceed with exploring conversion further. Some farmers also believe that the existing condition of their farm cannot be changed, making

it not suitable for organic management. One farmer was also concerned about finding staff for the additional labour required.

The French advisors of fruit production highlighted a range of technical issues (pest and disease management, managing alternation of apples, weed management, and fertility issues). Diverging questions arise depending on whether an orchard is to be converted or newly established. Questions when converting mainly concern technical aspects (pests, thinning, fertilisation, weeds) and commercial aspects (market and selling price), whereas orchard layout (variety and rootstock) is important for establishment. Those few producers who had recently asked about new plantings were considered atypical, oriented towards direct sales and agritourism and even not striving for profitability. Further, yield loss and arising economic issues were considered important for French fruit production, as well as a sharp rise in production costs. The advisors pointed out that the decision-making horizon for fruit producers must be long-term, because orchards are set up for several decades and cannot quickly be changed. One of the two French young wine producers considering conversion expressed that "a fear of crop protection management" was holding her back from committing to organic, whereas she had made other changes, such as moving away from chemical weed control, encouraged by the French "Glyphosate tax credit" (see Results France for details).

In the Hungarian group discussion, wine producers raised issues of pest and disease control. An important topic was the lack of resistant cross-bred (interspecies) varieties, which have been used mainly for mass produced wines or for the local market for several decades (see also below). CoP members sell wine using the name of the variety, but consumers are not familiar with the resistant varieties, which creates problems when marketing those directly. Also sourcing domestic propagating material can be barrier to use such varieties. The CoP producers in Hungary see a contradiction between the term "bio," which they associated with the reduction of spraying, and the frequent application of copper and sulphur in organic vine growing. This was described as a negative aspect of the organic system.

The group of cereal farmers in the Danube region of Romania raised issues related to soil fertility management, which were related to rules of the local administration. The local Danube Delta Biosphere Administration does not allow organic producers to apply organic fertilisers, which would otherwise be permitted in organic farming. The group has made some representations to the authority to get these rules reviewed but so far without success. The farmers also mentioned issues of water scarcity and draught problems and were also concerned about additional labour requirements and how to find employees and the costs involved.

In the study of farmers in the US by Stephensen et al. (2022), weed management, pest and disease management, and managing soil fertility were found to be major or minor obstacles for most groups of farmers they studied, whereas yield reductions were not considered an obstacle. Best considers the question "Will I be able to control pests and weeds?" as an important one that farmers will ask themselves when confronted with the decision whether or not to convert (Best, 2009). Concerns about increasing weed pressure, fertility management, and low yields were also mentioned as reasons for farmers' reconversion to conventional in the German study of Kuhnert et al. (2013).

Box 3: Das BioRegioBetriebsnetz in Bavaria, Germany

The German example of the BioRegioBetriebsnetz (BRB) in Bavaria points to a novel approach of how authorities could create opportunities for farmers to learn from other farmers about how organic farmers have overcome perceived obstacles to conversion. The network comprises of one hundred organic model farms, distributed throughout Bavaria with the aim of fostering knowledge exchange between farmers interested in conversion and experienced organic farmers. Interested farmers can request to visit a model farm to ask their questions one-on-one, without any further obligations. The model farmers are supported by the programme to make time available for such visits. The program is considered a successful yet low-cost model by the local administration and has been used as a template for a similar network in Baden-Württemberg (Hinzpeter, 2024).

Livestock production

Farm-level barriers to conversion of farms with livestock were raised in relation to feeding livestock in Denmark, for aquaculture in Greece, and in relation to building requirements and access to pasture in Germany. The Danish advisors reported the feeding of the animals as important topics for discussion during their visits, especially in relation to beef, sheep, and horses. There was uncertainty about the rules, especially in relation to shared grazing with other holdings.

Aquaculture producers in Greece hoped for a breakthrough in the supply of suitable, affordable organic feed (i.e., insect meal, organic soya, or lupin meal), which could help reduce costs and thus make organic fish more competitive. This applies equally to freshwater farmers and marine fin fish producers. They mention the high price of organic feed and the lower feed conversion ratio, both with direct impact on the economics.

German advisors relayed that housing requirements of the regulation and the availability and setting up of pasture for grazing were reasons why one farmer abandoned the idea of conversion at an early stage. Concerns about finding suitable farm staff were also related to livestock production.

The Romanian report highlights the low uptake of organic management on pastureland for a variety of reasons, including the low uptake of related ecoschemes and lack of demand for organic livestock products. Livestock-related question have received less attention in the literature reviews of factors impacting on the conversion-decision.

Farm-level economic issues

Uncertainty about economics, i.e., the likelihood of farm profitability during and after conversion was an issue frequently raised by the Danish, German, and French advisors. A young and recently converted Austrian arable farmers found business calculations challenging to do.

In Denmark, a dominant reason given by most farms for not converting was the broad heading economy. Farmers were concerned that the limitations in nutrient supply might lead to reduced yields impacting returns, but also uncertain about whether they will get the prices they need. Farmers have the possibility to ask for more detailed calculations on the feasibility of conversion, but they would have to pay for this additional service. The advisors also reported

that there are some younger and often smaller part-time farmers who appear more willing to take an economic risk and have additional sources of income.

Concerns about the individual feasibility of conversion was also mentioned by German consultants, including the need to invest in buildings or cereal storage. Farmers fear they will not be able to earn what is needed, especially during conversion when products cannot be sold as organic. High inflation puts additional pressure on farmers. Some farmers believe that existing conditions on their farm cannot be changed or that the effort will not be worth it in the end. The French report working with advisors for fruit production and two wine growers raised the need for more long-term economic security for such permanent crops.

Economic concerns were listed as the second most important topic that farmers faced when considering converting, with questions such as "Will adopting organic farming ensure the long-term financial stability of my farm?" with further considerations also involving subsidies (Best, 2009). In the German study of reconversions, economic reasons were frequently cited as one of the reasons for giving up organic farming—farmers related those to low incomes, problem with the marketing, low organic price premiums, and low support rates. High costs of certification and of organic feed were also mentioned. However, comparisons of organic with conventional data in the national FADN data set in Germany did not show lower farm incomes for organic, and for some farm types organic farm incomes were consistently higher than for conventional (Kuhnert et al., 2013)[29]. Karipidis and Karypidou (2021) list high cost for inputs in conventional, financial risk of the conversion period, and high land prices as financial factors impacting on conversion (Karipidis and Karypidou, 2021). Wreford et al. (2017) conclude that actual or perceived lack of financial benefits may prevent adoption of climate friendly farming practices.

Personal and social issues

The reports from the focus countries cover only a limited number of personal issues, of which two categories are highlighted here. Some reports from the focus countries also highlight personal motivations of farmers, but these are not considered here.

The Austrian interviews with recently converted arable farmers mentioned that the parents, the partner, or other members of the family also had to be convinced that going organic was a good decision. Some talked about the initial lack of experience in organic cultivation methods, but seminars and workshops dealing with the conversion to organic were very helpful to them. These farmers would have also liked seminars dealing with practical workflow on organic arable farms (hoeing or harrowing) or a mentoring system with experienced organic arable farmers ("Farmers teach farmers").

One French wine grower had met a long-term organic producer who advised her not to convert, referring to the difficulties in making his own business pay under current circumstances. The other wine grower highlighted the importance of personal interactions with other organic farmers in the decision-making process.

[29] See also: https://www.thuenen.de/de/fachinstitute/betriebswirtschaft/projekte/analyse-der-wirtschaftlichen-lage-oekologisch-wirtschaftender-betriebe

One Romanian farmers also referred to a general lack of knowledge about agricultural machinery and inputs for organic agriculture and that farmers rely mostly on knowledge from other organic farmers, who might turn consultants themselves.

The interviewed German farmer pointed out her previous knowledge in business management putting her in a better position to cope with increased management requirements of running an organic business, which can be challenging (see also administration and policy below).

The Danish and Romanian report drew attention to that a generation of organic farmers are now nearing the age of 70 and coming closer to retirement, but a successor cannot always be found, and thus knowledge and experience of these farmers may be lost.

3.10.2 Marketplace

The strong interaction between the organic market and the conversion decision is not new but often has been explored more as a motivating factor rather that a barrier. Interactions with the organic market are noted in almost all the focus countries, mostly as a barrier to conversion (see Table 3.9). The market signals were considered so discouraging that several countries were not able to work directly with farmers interested in organic conversion but had to find other ways to get an understanding of barriers, for example by working with advisors. The findings illustrate the close interaction between the organic market and farmers' interest in conversion.

Table 3.9: Market factors mentioned in the national reports

	AT	DE	DK	FR	GR	HU	IT	RO
	Arable	Various sectors	Various sectors	Fruit/ wine	Aquaculture	Viticulture	Urban garden	Arable
Future demand and market stability		X	X	X				X
Market access and organic premiums				X	X	X		
Competing claims and unfair competition				X		X		X
Long-term commitment and planning		X		X				
Access to market information	X							X
Potential of bio-districts							X	

Source: Own data based on national reports

Uncertainty about **future demand, market stability,** and opportunities to sell for organic premiums are identified as a barrier among organic farmers in general in Denmark, Germany, France, and Romania. Farmers might have been exposed to reporting in the press about recent stagnation in the organic market in their country or in Europe (see national developments). The Danish advisors listed market stability as one important point of discussion in most conversion-check visits. In addition, the German report also raised the need to get better prices during conversion. Difficulties in finding buyers and establishing reliable supply chains are noted in many discussions with farmers in Romania.

Market access and organic premiums

The specialist sectors of fruit production in France and aquaculture in Greece report recent price reductions, increases in production costs, and difficulties in finding buyers. The Greek aquaculture producers end up selling parts of their production as conventional, resulting in financial losses. French fruit advisors see the need for higher prices to compensate for yield reductions compared to conventional. Wine producers in Hungary also comment on the lack of an organic market and organic premiums for their products. The French advisors also remark that quality criteria of the major organic fruit buyers have overtime moved closer to those for conventional produce, making market access more difficult in some cases. Historically, buyers were more willing to offer good prices and/or multiyear contracts. The urban grower group in Italy is not directly interacting with the market in the same way. The Austrian report working with farmers that have already converted mentioned higher producer prices for organic as an incentive to them, also highlighting the importance that the market can have on the individual decision. One Greek aquaculture producer emphasised own processing as a potential strategy to differentiate.

The French report also draws attention to uncertainty arising from **competing claims**, such as regenerative agriculture or HVE, the rules for which are less demanding than for organic, which creates uncertainty in the marketplace. Uncertainty about labels was also mentioned in Hungary, where the national wine legislation introduced the term “natural wine,” which by legislation must be organic, yet natural wines that are not certified organic are on sale, pointing to a lack of enforcement. The Greek report mentioned that too many labels for organic and similar fish (bio, eco, organic, antibiotic free) contributed to a reduction in consumer trust. The Romanian producers were concerned about unfair competition (e.g., lack of proper certification for grain imports from Ukraine and greenwashing), and the deteriorating condition in European markets to where their products are exported. The Romanian report mentioned that more emphasis on national food sovereignty and security as well as the promotion of local products was needed, also mentioned in Greek report.

The French advisors point to the importance of **long-term commitment** of downstream actors including adequate and fair prices for the specialist sector of fruit production, which requires more long-term investment decisions by producers to engage with organic. “An orchard is planted for many years. Modifying an orchard to make it more resilient and better adapted to organic farming is a long and costly process.” The German advisors also report that farmers mention the lack of planning security as an obstacle, caused by an uncertain market but also by regular changes in subsidies or regulations, especially related to animal husbandry.

Austrian and Romanian farmers wanted more **market information**, the Austrian farmers also mention difficulties in business calculations, whereas Romanian farmers mentioned information about export markets.

The Italian report refers to the potential of **bio-districts**, where farmers, public authorities and other regional operators jointly aim to maximise the economic and sociocultural potential of the territory, based on organic principles and practices. These more localised perspectives might be an important lever to unlock the potential of organic for a specific region and reduce the reliance on other market actors.

In the US study, Stephenson et al. (2022) found the availability of organic processing facilities and obtaining organic premiums to be a major obstacle for farmers not pursuing organic and a minor obstacle for farmers already in conversion.

Through farmgate prices and organic premiums, the marketplace has a direct impact on the economic situation of the farm and is likely to impact the conversion decision. In a German study of the conversion-decision, Best (2009) referred to the question of farmers "Will there be a market for my products?" as one of the important questions that farmers who are considering the decision whether to convert to organic will ask. Karipidis and Karypidou (2021) consider the product price that the farmers receive likely to be one of the most important determinants of the conversion decision (Karipidis and Karypidou, 2021).

Some caution is advised in interpreting apparent links between market development and willingness to convert to or maintain organic farming. According to Möhring et al., (2024) almost no studies have considered how changes in prices and demand are likely to affect farmer decision-making (Möhring, Muller and Schaub, 2024). The impact of the market is context specific and does not only reflect the organic market in general but also the regional and sector specific market structure that affect market access and farm gate prices.

3.10.3 Local and regional infrastructure

Commonly mentioned barriers in this area include the availability and costs of organic inputs, availability and costs of labour and technical expertise. Observations from the focus countries on these issues discussed are summarised in Table 3.10 and described below. The question of access to technical expertise is not specifically mentioned in the focus countries, so it appears that farmers who seek information or expertise are able to find some.

Table 3.10: Local and regional infrastructure factors mentioned in the national reports

	AT	DE	DK	FR	GR	HU	IT	RO
	Arable	Various sectors	Various sectors	Fruit and wine	Aquaculture	Viticulture	Urban garden	Arable
Availability of suitable cultivars	X			X		X		X
Plant protection inputs	X							
Access and costs of weed control equipment	X							
Organic fertilisers			X					
Cheaper organic feed					X			
Organic youngstock					X			
Availability of labour		X				X		
Access to land / property prices							X	X
Local water management							X	X

Source: Own data based on national reports

Austrian farmers talk about the need for more **robust or resistant cultivars** in arable farming. Hungarian vine producers also mention the need for resistant cultivars and also point to the need for acceptance of cultivars in the market. The French report lists the search for varieties that are better adapted to organic production as a technical challenge which the French advisors related to a lack of investment in research. The Italian group of urban gardeners use ancient varieties, which may not be registered in regional seed registers and thus could create some problems with certification.

The Austrian farmers mentioned a lack of **suitable plant protection** inputs, but no further detail was given. They saw the need for cheaper machinery for mechanical weed control machinery, considering what is on the market is quite pricy.

The Danish advisors concerned about **organic fertilisers** consider the question how to **source nutrients** important for arable producers, but it remains unclear whether this refers specifically to external inputs or covers also the supply within the rotation. The context of recent changes to the national rules that further restrict the use of conventional manure on organic farms is important in this context.

The Greek aquaculture producers were hoping for a breakthrough in suitable, affordable **organic feed** (i.e., insect meal, organic soya or lupin meal) that could help reduce costs and make organic fish farming more competitive. The report also raised the issue of availability of organic youngstock, especially since the one national hatchery is scheduled to close at the end of 2024.

In the German report, the question of labour burdens was raised by one advisor in relation to increased workload, and the interviewed farmer was concerned about **finding staff** and about the high bureaucratic burden when employing seasonal workers from abroad.

An issue raised by the German advisors was a **negative attitude** of some of the **landlords,** even the refusal to let a tenant farmer take land into organic management. Other issues mentioned were access to land and rising property prices (Hungary and Italy), local scarcity or access to water (Italy, Romania) and the lack of local plot management by municipality in (Italy),

In the US study of Stephenson et al. (2022), the cost of organic inputs and the cost of labour were considered major obstacles by farmers not pursuing organic conversion (Stephenson et al., 2022). The impact of local some factors was also identified by Möhring et al., (2024) who remind of the existing differences regarding economic conditions which can encourage but also discourage farmers to engage with organic farming.

3.10.4 Administration and policy

Administrative and policy issues are also a frequent theme in the reports of the focus countries (Table 3.11).

Table 3.11: Administrative and policy issues mentioned in the national reports.

	AT	DE	DK	FR	GR	HU	IT	RO
	Arable	Various sectors	Various sectors	Fruit and wine	Aquaculture	Viticulture	Urban garden	Arable
Costs of organic certification		x			x			
Recordkeeping and bureaucracy	X	X	x		x	x	X	X
Issues related to administration and specific rules			x	X				x
Other issues	X	X		X	X			

Source: Own data based on national reports

Cost of certification was mentioned in the reports from Germany and Greece. In Denmark, organic certification is provided by the state free of charge, however, the Danish advisors noted some concerns from farmers in the effort involved in becoming certified, and some farmers did not like the obligation to have the farm inspected regularly.

The issue of **recordkeeping requirements** of organic certification was mentioned in all focus countries, including concerns about organic standards and regulations in general, the dislike of the amount of paperwork, the complexity of pest, disease, and fertility management (Denmark, France), and around parallel production and livestock rules (Denmark). The German farmer interviewed emphasised that her business management background was helpful in handling the additional time and expenditure during conversion, for e.g., the organic inspection, QS inspection, pesticide practices. This was also echoed by a Greek aquaculture producer: “I must sacrifice all my time only to deal with the bureaucracy.” And an Italian plot holder of in the Urban gardens was referring to some plot holders not willing or able to deal with “hours of bureaucratic work, which then blocks the whole system.”

The Romanian report mentioned a lack of knowledge about organic in the regional **agriculture administration** and limited interest in explaining and communicating legislation from the Ministry of Agriculture to farmers.

Issues related to **national rules** were mentioned in the Danish report relating to recent changes restricting the use of conventional manure in organic arable production. The uncertainty about yields and the availability of nutrient inputs could be related to this change. The French fruit growing advisors pointed to the regulatory obstacle of the approval of phytosanitary products, especially the short-term nature of some Market Authorisation for permitted inputs. And the Romanian report mentioned a specific application of rules in one district.

Long-term policy stability

Austrian farmers raised the need for adequate support for small organic farms to stay in business, emphasising the ecological benefits generated. The German advisors reported the lack of planning security as an obstacle for farmers together with regular changes in subsidies and organic regulations and market uncertainty. The French report also mentioned the need for long-term perspectives, especially in relation to fruit and wine production. The French and Greek mention a lack of investment in research, both related to specialist organic sectors. And the two French wine growers highlighted the potential importance of regional strategies, where in one region biodiversity and environmental and social issues are at the heart of the regional wine organisation, whereas in the other, the plot was downgraded because of weed issues.

Support payments were not so frequently mentioned in the focus countries. In the literature, Stephenson et al. (2022) found that the cost of organic certification and record keeping were seen as a major or minor obstacle for all the groups of farmers they surveyed. Karipidis and Karypidou (2021) mention perceived bureaucracy to be negatively associated with organic certification. Kuhnert et al. (2013) also found problems with organic standards and their implementation on the farm, the effort involved in inspection and certification as well as changes to the standards (at that time 100% organic feeding and an end to the derogation for tethering) mentioned as a central reason for reconversion to conventional in Germany. Hermann and Padel (2023) note that the lack of mandatory digital capture of all relevant data (field location and size, culture, yield, sales volumes) is one of the main weaknesses of the organic control system.

3.10.5 Conclusions

We considered here factors related to the personal and farm level, which are in the sphere of influence of the farmer (such as choice of the farming system and the production process), the market sphere (including transport, processing, and the sale of the produce to consumers), local and regional infrastructure, and administrative and policy factors. Whilst many factors have already been identified in previous studies (see 3.10) the findings highlight some aspects that have received less attention so far.

Technical concerns reported are mainly related to specific farm types, such as weed control and nutrient supply for arable producers, rations, feeding, and buildings in the livestock sector, pest and disease control and resistant varieties for specialist crops. Much of this is well known from the literature, but it appears that information and advice are not equally well available in all focus countries, so farmers continue to experience this as an obstacle to going organic in some countries or sectors. Particularly specialist sectors deserve attention, such as horticulture (fruit, wine, urban gardens) and livestock production including aquaculture and small-scale producers. Technical issues at the farm level can be addressed by making better advice and information available to farmers and by creating opportunities for peer-to-peer exchanges.

Farm level financial or economic performance during and after conversion is a crucial barrier to conversion and obstacle to staying in organic. The reports from the focus countries illustrate much uncertainty, including about farm-gate price stability, future market access, policy support (especially in new CAP periods), raising costs for inputs, investment needs, etc. Issues less frequently identified in the literature are land prices and access to land. Farm finances affect all farmers, not just organic ones, but conversion creates new uncertainties.

Better availability of information (e.g., publishing reports on organic farming from FADN data collections) or specially targeted conversion-checks and financial service for organic producers and those interested in conversion could remove some uncertainty.

There is strong influence of the **organic market** on the conversion decision; farm-gate premium prices have a direct impact on farm finances. Information on organic prices and market development is not widely available in all focus countries, as indicated in some reports. Willer et al. (2024) for example has no recent retail sales data for several of the focus countries (Greece, Hungary, Romania) and data availability on export markets is even more limited. Which sources farmers use for information on organic premiums for this product would be an interesting topic for future research. More research evidence on how changes in organic farm-gate prices and demand affect farmer decision-making is needed. Supply chain and market measures are likely to be especially relevant for scaling up the adoption of organic agriculture by farmers (Möhring et al., 2024).

The influence of **local and regional infrastructure** as a barrier to conversion is mainly mentioned in the reports working with specialist sectors, related to the availability of robust or resistant cultivars for fruit and vine growing, organic feed for aquaculture, and some focus country reports see a direct relationship to investment in research. Also, the cost and availability of labour can be an obstacle to conversion.

Frequently mentioned **administrative and policy barriers** are high bureaucracy and need for record keeping associated with organic certification. Farmers converting might initially not be aware of additional requirements and the associated paperwork: all organic operators must undergo at least one very detailed audit as part of their organic certification. This can be highlighted in information and advice. Farmers also express uncertainty about likely rules change and specific national rules or interpretations of rules by regional authorities. Anecdotal evidence suggests that advisors spend more and more of their time involved with administrative support for grant applications, leaving little time for other aspects. Rules related to the licensing of inputs (pest and disease control, seeds) are also mentioned. It is surprising that support payments are not so frequently mentioned in the reports of focus countries, except for support for small producer and/or for higher environmental benefits in the report from Austria. The French report illustrates how much uncertainty a reduction of payments can create in the organic sector.

Concluding remarks

Our findings confirm the importance of factors beyond technical issues, related to the market, regional infrastructure, and administration and policy. These are outside the direct influence of farmers. This confirms the findings of Stephenson et al. (2022) that to increase the number of farms going organic will require not only farm-level research, farmer education, and better information and advice but also the development of regional infrastructure and national policy incentives. A focus on technical aspects alone will not be sufficient to encourage change (Day and Cramer (2021).

A sustainable growth strategy for organic farming must also improve the vision of organic farming in the agricultural population (Best (2006, 2009). This could encourage conversion and help minimising the number of farmers leaving the sector. Given the existing ambitious policy targets Möhring et al. (2024) argue for more causal approaches on organic adoption to supply evidence-based recommendations to policymakers and food-value chain actors.

Time is an important factor that needs to be considered both in relation to the individual farmer—and how the decision-making progresses from recognising a need for change, seeking out alternatives, and implementing them—and in relation to expanding organic farming in different regions (Padel, 2001; Best 2009; Möhring et al., 2024). It is likely that farmers need different types of support to overcome obstacles in these different stages, which should be considered when developing support policies.

4 Strengthening organic advisory services

Advisory services play a vital role in supporting the expansion of organic farming by facilitating knowledge exchange, providing technical guidance, and strengthening decision-making processes for farmers, processors, and other key stakeholders. As organic agriculture continues to grow across Europe, the need for well-structured, accessible, and competent advisory services has become increasingly critical. However, the effectiveness of these services varies across countries, influenced by differences in institutional frameworks, financial resources, and advisory expertise.

This chapter examines the state and future of advisory services in eight focus countries—Austria, Denmark, Germany, Greece, Hungary, Italy, France, and Romania—with a particular focus on their capacity to support the expansion of organic farming. Practice Partners in each of the eight focus countries organised national level workshops or conducted surveys as part of Task 5.2 of the OrganicTargets4EU project to collect expert inputs on the state of their organic advisory services, to supplement the findings of *Deliverable 1.1. Assessment of the knowledge and innovation systems for organic producers and value chain actors*.[30]

The analysis presented in this chapter highlights the diverse range of advisory actors and outlines key thematic areas covered by the current actors of advisory services. The chapter explores the vision for the future of organic advisory services, outlining desirable elements for an optimised system by 2030. It identifies strategic steps necessary for strengthening advisory structures. The recommendations aim to foster more effective, inclusive, and sustainable advisory services that can support the long-term development of organic farming in Europe.

4.1 Approach

This sub-chapter outlines the approach used in organising and conducting national workshops in the focus countries under Task 5.2, aimed at increasing the availability of organic advisory services and capacity building. These workshops were meant to foster mutual learning, identify gaps in existing advisory services, and propose actionable steps to develop or scale these services while addressing the specific needs of stakeholders in the organic sector.

Step 1. Guideline to conduct the workshop

A guideline document (see in Annex II) was prepared by ÖMKI to ensure smooth planning, execution, and reporting of the workshops. According to these guidelines, the workshops focused on two main topics:

Current situation—facilitated discussion on the current state of the organic advisory system

- Who are the actors of (organic) advisory system? From whom can information, guidance and inspiration be obtained, when making decisions on farming methods, investments, markets, subsidies?

[30] https://organictargets.eu/deliverables/

- How can these actors be described in terms of (1) availability, (2) affordability, and (3) competence?
- What are the key thematic areas covered by the current actors in the field of advice
- Which are the most important areas/topics?
- What are the gaps? To what extent do supply and demand for expert advice meet? What are the main identifiable strengths and gaps in the provision of advice? Are there differences in this respect by subject/region?

Future—what would be a viable/realistic state and how to get there?

- How would an optimal (ideal yet viable) organic advisory look like in 2030?
- What components, conditions, and funding mechanisms are needed for an optimally functioning organic advisory?
- What are the main obstacles to develop a well-functioning organic advisory by 2030?
- What are the next steps forward? What needs to be done as an immediate and concrete action? By whom?

The workshops were designed to utilise data collection methods, including facilitated discussions and the World Café Methodology, following the proposed guidelines. A preparatory meeting with Practice Partners took place on 13 March 2024 to familiarise them with the aim, the course of the activity, and the guideline document. The workshops were scheduled to take place between March and September 2024.

Step 2. Identification of participants for the workshops

Key workshop participants were experts and stakeholders identified in Task 1.2, who had previously provided insights into national AKIS systems via interviews and surveys summarised in Nagy et al., (2023). This group primarily included advisory service providers, other knowledge providers, organic farmer organisations (including agriculture and aquaculture) and policy makers. Considering that well-operating advisory services are key for all players of organic value chains, it was highly recommended to involve the representatives of additional stakeholders, especially those of processors and retailers' organisations or associations, controlling and certification agencies, chambers of agriculture, representatives of the ministries of agriculture and environment, and environmental NGOs. The ideal number of participants for the workshops was set between approximately 10 and 25 to ensure that everyone, regardless of their communication skills, could effectively express their views on each topic.

Step 3. Conducting the workshops

Each workshop adapted its format to national conditions, ensuring flexibility while maintaining a structured data collection approach. Denmark specifically opted for an online survey instead of a workshop due to its well-established organic advisory service structure. This approach allowed them to reach a larger group of advisors, particularly those with a strong focus on organic farming. Table 4.1 below summarises the timing and methods of input collection regarding national organic advisory services in the focus countries, along with the main types of stakeholders involved.

Step 4. Reporting results

Reports of the workshops were prepared by the Practice Partners, either by following the specified sections of the guidelines or using the reporting template provided by ÖMKi to help structure their results. Reports from focus countries were collected by the end of October 2024 and were stored on the OrganicTarget4EU SharePoint for data protection purposes.

In the case of Denmark, the survey-based methodology allowed them to gather broad and quantitative insights into the organic advisory sector, complementing the workshop-based approaches used in other countries. The aggregated and anonymised survey responses can be found in Annex III.

Table 4.1: Approach for data collection about national organic advisory services

Focus country	Practice Partner	Date	Method	No. of participants	Type of stakeholders
Austria	LKNO	3 October 2024	In-person workshop	4	organic advisor, experts from organic farmers' association, agricultural ministry and the agricultural chamber
Denmark	ICOEL	Open until 27 September 2024	Online survey	40	95% were advisors, of them, approx. 70% of their work is in relation to organic farming, and 50% of them work in Randl.
France	ITAB	9 and 12 September 2024	Online workshops	30	organic advisors, experts from organic farmers' association, agricultural ministry and the agricultural chamber, researchers
Germany	Naturland	25 September 2024	In-person workshop	11	organic advisors, ministerial staff, aqua experts, research institutions, farmer
Greece (aqua)	AUTH	8 May 2024	In-person workshop	16	researchers, university experts
Hungary	ÖMKi	14 May 2024	In-person workshop	16	researchers, experts from chamber of agriculture, private companies, family farmer.
Italy	CIHEAM-Bari	8 October 2024	In-person workshop	12	researchers, experts from universities, consulting companies
Romania	USH	24 May 2024	Hybrid workshop	16	marketing specialist, bio clusters, academy expert

Step 5. Analysing results

Reports from each country followed a standardised format to ensure comparability, except for Denmark, which conducted a survey. The analysis focused on identifying common trends, country-specific differences, and existing gaps. The finding are presented in aggregated tables for each sub-chapter. Additionally, the varying analytical approaches used to interpret the results are outlined in the respective sub-sections. **Greece only covered organic aquaculture and these results are summarised in the separate Section 4.4.**

All were consulted with and validated by the Practice Partners in February 2025.

4.2 Current state of the organic agricultural advisory system in the focus countries

This sub-chapter provides the analysis of the current state of organic advisory services across the focus countries, highlighting the key actors, their roles, and the key thematic areas covered by the current actors.

4.2.1 Current actors of advisory

Based on findings from national reports, this chapter presents an overview of the key advisory actors, their availability, affordability, and competence in each focus country. The various actors involved in the organic advisory system were grouped into ten categories to provide a structured understanding of their roles and influence. These categories emerged from national reports, considering their function in providing advice, funding, and knowledge exchange.

The ten categories are the following:

- **Public bodies**: such as chambers of agriculture and product councils, provide governmental and institutional support for farmers through advisory services, policy implementation, and funding mechanisms to enhance agricultural practices.
- **Research:** research institutes play a crucial role in generating scientific knowledge and innovations for organic farming, supporting advisory services with evidence-based recommendations and new agricultural techniques.
- **Education and training:** vocational and higher educational institutions, including universities and demonstration farms, contribute to farmer capacity building by providing formal training, workshops, and knowledge exchange programs.
- **Cooperations:** EU CAP Network operational groups and consortia bring together multiple stakeholders, such as farmers, researchers, and advisors, to collaborate on joint agricultural projects, knowledge-sharing initiatives, and innovative farming solutions.
- **Private sector**: Private consultancy providers, input suppliers, and independent advisors offer specialised, often market-driven, advisory services tailored to individual farm needs, including financial planning, technological adoption, and business development.
- **Farmer organisations**: Cooperatives, producer groups, and organic associations represent farmers' interests by facilitating peer-to-peer learning, collective bargaining, and support services to enhance organic production and market access.
- **Control bodies**: certification and control bodies oversee compliance with organic standards, ensuring that agricultural practices align with regulatory requirements, facilitating organic certification, and guiding farmers through inspection processes.
- **Authority**: government regulatory agencies set policies, provide financial incentives, and regulate organic farming standards, ensuring compliance with national and EU frameworks while supporting advisory services.

- **Media and digital platforms**: specialised press, digital advisory platforms, and social media networks play a growing role in disseminating agricultural knowledge, connecting farmers with advisors, and providing accessible, up-to-date farming information.

- **Organic regional communities:** areas where local farmers, consumers, authorities, training and research centres, associations, and tour operators collaborate on the sustainable management and use of local resources based on (agro)ecological principles and practices, e.g., bio-districts in Italy.

Table 4.2 below shows the current main actors of advisory across the focus countries and how they can be generally described in terms of availability, affordability and competence. This is followed by summaries for each country of the main advisory actors, their availability, affordability, and competence together with additional information provided by the Practice Partners.

Table 4.2: The current main actors of advisory across the focus countries and characteristics in terms of availability, competence and affordability

Colour code: High – moderate – low

Country	Category of actors	Current main actors	Availability	Competence	Affordability
AT	Farmer organisations	Bio Austria			
	Public body	Advisory services of chamber			
	Farmer organisations	Other organic associations			
	Private sector	Private consultancy providers	n/a	n/a	n/a
DK	Private sector	Large advisory agencies			
	Private sector	Independent Organic Advisors			
	Research	Research and Innovation Advisors			
	Farmer organisations	Small-scale networks			n/a
	Public body	Danish Agricultural Agency			n/a
	Education and training	Universities and vocational training centres			n/a
	Other farmers	Farmers	n/a	n/a	n/a
FR	Education and training	Agricultural technical institutes			
	Research	French agricultural research institute			
	Research	Regional experimentation platforms			
	Public body	Chambers of Agriculture			
	Farmers organisations	Advisory service of organic association			
	Farmers organisations	Cooperatives and producer groups			
	Media	Social media			
	Media	Digital platforms			
	Farmer organisations	Producer groups with facilitator			
	Other farmers	Fellow farmers			
	Private sector	Advisors and independent consultants			
	Public body	Public and government players			
	Media	Specialised press			
	Control bodies	Certification bodies			
	Education and training	Agricultural education system			

Country	Category of actors	Current main actors	Availability	Competence	Affordability
DE	Farmers associations	Advisory service of organic associations			
	Private sector	Independent special advisors			n/a
	Public body	Government advisory service			n/a
	Authority	State Agricultural Authority of Hesse (LLH) Organic team	n/a		n/a
	Farmers Organisations	Special expert advisors of organic associations			n/a
	Education and Training	Advisory days on farms	n/a	n/a	
	Media and digital platforms	Oekolandbau.de website		n/a	
	Education	Demonstration farms			
	Authority	Federal state authority	n/a	n/a	
	Organic regional communities	Regional and special advisory service			
	Private sector	Feeding advisors			n/a
	Private sector	Agriculture companies			
	Other farmers	Neighbour farmers		n/a	
HU	Other farmers	Fellow farmers			
	Individual advisors or advisory services	Plant protection specialists			
	Input supplier	Input retailers			
	Individual advisors or advisory services	Farm consultants			
	Individual advisors or advisory services	Registered agricultural advisors			
	Individual advisors or advisory services	Soil experts			
	Control bodies	Organic control bodies			
	Research	Specialists, researchers			
IT	Other farmers	Fellow farmers			
	Research	Research institutions			
	Farmer organisations	Organic producer associations			
	Farmers organisations	Cooperatives/ Producers' organisations			
	Cooperations	Consortia			
	Private sector	Supply chain leaders			
	Private sector	Private consultants / Networks of consultants			
	Private sector	Input suppliers			
	Organic regional communities	Organic Districts			
	Control bodies	Control and Certification Bodies			
	Authority	Regional Development Agencies, Regional and National Public Authorities			
	Media and Digital Platforms	Press and TV			

Country	Category of actors	Current main actors	Availability	Competence	Affordability
RO	Other farmers	Fellow farmers			
	Private	Traders			
	Cooperations, operational groups	Clusters			
	Authority	State employees			
	Individual advisors or advisory services	Private agricultural advisers			
	Individual advisors or advisory services	Financial experts			
	Control bodies	Certification bodies			
	Research	Researchers			

Source: own compilation based on national reports

Austria has a well-developed and highly accessible advisory system in the organic sector. The advisory services of Bio Austria and the Chamber of Agriculture are strong in all three categories—availability, competence and affordability—making them the most reliable sources of advice for organic farmers. The regional offices of the chambers of agriculture in the federal states of Austria are strong in providing farmers with reliable basic information about transitioning to organic and support organic farmers with profound knowledge about funding schemes for organic in the context of the Austrian Environmental Programme ÖPUL. Other organic associations—such as Demeter or ErdeandSaat—provide less organic advisory resources than BioAustria and the Chambers of Agriculture. Private consultancy providers for organic farming are scarcely established in Austria and in most cases are closely linked to suppliers of feeding stuffs or fertilisers and therefore lack independency. Organic farms are present in all regions of Austria, and experienced fellow farmers are a very valuable source of information for organic newcomers. Although the Austrian organic advisory system is comprehensive and well structured, Austria lacks strongly specialised advisors for special cultures and has to undertake efforts to enhance training and education of organic advisors.

Denmark has a well-stablished advisory system for organic farming. Advisory services operate privately and, according to the survey results, large advisory agencies provide organic advice, though not all conventional agencies offer organic counselling. However, major advisory firms include organic expertise in their services. Independent organic advisors work directly with farmers, focusing on organic regulations, certification processes, farm management strategies, and financial consultation. Approximately 50% of surveyed advisors are engaged in research and innovation, supporting technical advancements and knowledge development in organic farming. The Danish Agricultural Agency plays a regulatory role in advisory services, though advisors express concerns about the administrative burden and bureaucracy affecting their efficiency. Universities and vocational training centres contribute to the education of organic advisors, but there is a need for more specialised training, particularly in niche organic sectors (e.g., poultry, vegetables, fruits and berries, and nuts. Advisors highlighted the importance of building networks with counterparts in neighbouring countries such as Sweden, Germany, Ireland, the Netherlands, and the UK to exchange expertise and conduct cross-country visits. There is an express need for an "International Horticultural Advice Network" to strengthen knowledge exchange, particularly for small nurseries and specialised organic horticulture. Also, while small farmers are not the primary drivers of organic market growth, they offer alternative approaches to problem-solving in organic farming, emphasising the importance of their integration into advisory services. Despite Denmark's strong organic advisory system, challenges remain, such as the need for improved funding especially for

improving access to advisory for small scale farmers, reduced bureaucracy, and a greater focus on market-related advice and training for future advisors.

France has a diverse and multi-layered advisory system with many different actors, though their effectiveness varies. Chambers of Agriculture and Organic farmers organisation are the strongest advisory bodies, with high availability, high competence, and medium affordability. Agricultural technique institutes, the French Research Agricultural Institute (INRAE), and Regional Experimentation platforms are the best in terms of competence but with a low availability. Social media and digital platforms are the best in terms of availability but not often in terms of competence (medium) and affordability (digital platforms only). Fellow or neighbour farmers are also the most available (but less than social media) and most affordable but not often competent (medium). Fellow farmers are a widely available and affordable resource, though their technical expertise varies. Private advisors, specialised press have mixed levels of competence and affordability, making them useful but not dominant players. Government and public players provide limited but affordable advisory services. certification bodies provide also limited advisory services, competent but not affordable.

In **Germany,** the advisory system is highly structured but fragmented. Provision varies between the regions; public and private systems co-exist. Advice for organic farmers is provided by organic farmer associations, by state-supported extensions services (in Central and Southern Germany public bodies, in the North-West mainly through Chambers of Agriculture; in the East mainly through private providers), and by independent advisory services. Competence and affordability vary. Advisors from organic farming associations, independent special advisors, and some government advisors have good competence and reasonable availability, although more limited in the East. Oekolandbau.de, a government-supported online platform, has high competence and wide availability, making it a valuable online resource. Practical learning from demonstration farms, advisory days on farms, and neighbouring farmers remain widely useful. Regional and special advisory services, feeding advisors, and agriculture companies have low to moderate competence and affordability, making them secondary sources. Federal state authorities play a minor role, primarily for regulatory and financial guidance.

In **Hungary,** the advisory system is dominated by informal and practical knowledge sources, with varying levels of expertise and affordability. Fellow farmers are the most available, competent, and affordable advisory or information sources, reflecting a strong peer-to-peer knowledge exchange. Plant protection specialists are competent and widely available, but affordability may be a concern. Input retailers (suppliers of agricultural products) play a key role, offering affordable advice, though their primary interest is sales driven. Farm consultants and registered agricultural advisors are present, but their competence is not particularly high. Soil experts are highly competent but rarely available, making their impact limited. Organic control bodies and researchers play only a minor role, offering low availability and limited expertise. Overall, Hungary relies heavily on practical knowledge from fellow farmers and plant protection specialists, while expert advisors and researchers have less impact. Specialised knowledge (e.g., soil expertise) is difficult to access. Research institutes and specialists are listed as part of the advisory system, but their role appears to be limited and underutilised in direct farmer support.

Italy has a mixed advisory system, with fellow operators, research institutions and organic producer associations playing key roles. Research institutions provide high availability and

affordability, but competence can be narrow focused. Organic producer associations and operators are widely used and competent. Cooperatives are highly competent but tend to be less affordable and not extensively available. Private consultants and consortia are relatively available and affordable but generally less competent. Suppliers of technical and technological means have moderate competence but relatively low availability and affordability, making them a useful but secondary resource. Organic Districts, control and Certification Bodies play only a small role, with low availability and competence. Besides the essential role reportedly recognised to organic fellow operators sharing innovation peer-to-peer and in networks, Italy's advisory services are strongest in research institutions, and producer associations, cooperatives, and supply chain leaders also offer reliable support. Private consultants and consortia are less effective, and certification bodies play only a minor role. Organic districts have a very interesting potential that still needs to be fully unlocked.

In **Romania,** the organic advisory system is relying heavily on fellow farmers and traders who are the most available and competent, with moderate affordability. State employees provide moderate competence and affordability, but availability is somewhat lower. Private agricultural advisers and financial experts are moderately competent but may not always be affordable. Certification bodies and researchers play a small role, offering limited availability and competence. There is a scarcity of advisers at local regional levels and the farmers are not guided by local bodies acting like a one-stop shop, able to deliver integrated services in various areas such as digital, transformation, agroecology, financing schemes, market opportunities, etc.

Patterns of Influence Among Advisory Actors Across Countries

Certain common patterns can be observed regarding which advisory actors tend to be the most influential and effective across different countries.

- **Institutional and governmental advisory bodies provide the most reliable expertise**

chambers of agriculture, agricultural technical institutes, and government advisory services are among the most competent advisory actors across countries such as France, Austria, and Germany. These institutions generally offer comprehensive and structured advice, making them trustworthy and widely available. However, their affordability varies. In some countries, they are highly accessible (e.g., Austria), while in others, costs or bureaucratic inefficiencies make them less attractive to farmers.

- **Fellow farmers and peer learning are the most accessible and affordable knowledge sources**

Across Hungary and Romania, fellow farmers are highly available and affordable sources of advice. While competence varies, peer learning often provides practical, experience-based knowledge that complements institutional or expert advice. Farmers trust their peers more than external advisors, leading to a strong preference for farmer-to-farmer knowledge exchange.

- **Private consultants and advisors are often less available and more expensive**

Independent consultants and advisory services are often not widely available and can be expensive, especially in Germany, Italy, and France. Their competence is highly variable, with

some offering specialised expertise while others provide generalised, less impactful advice. In Denmark, all advisory services providers are private and offer tailored and specialised services, characterised by impartiality. Although this is seen by advisors and farmers as a strength and something they want to preserve in the future, their high cost limits their accessibility for small-scale and part-time farmers.

- **Digital platforms and online advisory, information tools are emerging but have limitations**

Germany's Oekolandbau.de, France's digital platforms, and social media networks are becoming increasingly important advisory tools. While digital platforms increase accessibility, they often lack in-depth, personalised advice. Farmers in less technologically advanced regions (e.g., parts of Hungary and Romania) still rely on traditional advisory actors rather than digital tools.

- **Cooperatives and producer groups offer strong advisory support in some countries**

France, Italy, and Germany have well-established cooperatives and producer groups that provide high-quality, structured advice. However, their availability is limited to farmers who are members, and costs can be higher due to membership fees or service charges. Cooperatives combine peer learning with expert advice, making them a hybrid model of knowledge sharing.

- **Certification and control bodies play a minor role in giving advice but still have important role**

Certification bodies are not a primary advisory actor but are crucial for compliance and regulatory guidance in organic farming and sustainability initiatives. Their competence is low-to-moderate, as they mainly enforce standards rather than provide practical farm advice.

- **Researchers and universities are not used for advice despite their high competence**

Research institutions are highly competent but are not widely available or affordable for farmers. Their impact is more significant in countries with strong research-agriculture partnerships (e.g., France, Italy). The gap between academic knowledge and practical farm application remains a challenge.

4.2.2 Key thematic areas covered by current actors

The thematic areas covered by current actors of advisory in organic farming are consistently addressed across the focus countries, though with some regional nuances. **Production and technical practices** are a common focus, with all focus countries' current actors providing guidance on soil management, pest control, fertilisation, and animal health to ensure sustainable farming methods. These services support farmers in implementing best practices tailored to organic production. **Compliance and administrative support** are another key area, emphasising assistance with organic certification, legal requirements, and bureaucratic processes. Farmers receive support in meeting regulatory standards and managing subsidy applications, ensuring their operations comply with national and EU-level organic farming policies. Closely related to this, **financial planning and subsidy access** is a critical advisory theme, providing farmers with guidance on funding opportunities, transition planning, and financial sustainability in organic agriculture. The **market and economic aspects** of organic farming are also universally recognised. Advisory services help farmers identify market

opportunities, develop branding strategies, and access commercialisation channels, enabling them to compete in both local and international markets. **Knowledge exchange and peer learning** is a widely supported theme, as all countries encourage farmers to share best practices and experiences. This approach fosters innovation and improves advisory services by leveraging collective wisdom. **Climate change adaptation** remains a specialised focus in only four focus countries, highlighting different national priorities in organic farming advisory systems. Finally, **digitalisation** has become an essential aspect of advisory services, integrating modern technologies into organic farming practices. Digital tools are used for precision farming, supply chain optimisation, and data-driven decision-making, ensuring efficiency and sustainability in organic agriculture.

Table 4.3 below introduces the key thematic areas covered by the current actors mentioned by the workshop or survey participants in the focus countries. These areas were grouped based on recurring themes from country reports.

Table 4.3: Thematic areas covered by current actors of advisory

Category of thematic areas	**Thematic areas** mentioned in national reports	**Countries** covering thematic area
Production and technical practices	- Soil management and fertility - Crop rotation and plant cover strategies - Pest, disease, and weed management - Fertilisation planning - Technical and technological aspects - Animal health and veterinary medicine - Farming practices for crops and animal production - Mechanical weeding	AT, DK, FR, DE, HU, IT
Compliance and administrative support	- Support with certification processes and compliance with organic standards - Bureaucratic simplification - Regulations and legal requirements - Certification and inspection - Statistics and data collection support	AT, DK, FR, DE, HU, IT, RO
Financial planning and subsidy access	- Consultancy on subsidies and financial resources - Support for aid and funding applications - Transition plans (e.g., milk transition to organic)	AT, DK, FR, DE, HU, RO
Market and economic aspects	- Identification of market opportunities and channels. - Marketing, branding, and audience targeting. - Economic advice, including financial planning and investment guidance - Market distribution networks and commercialisation channels - Access to international markets	AT, DK, DE, HU, IT, RO
Knowledge exchange and peer learning	- Exchange of knowledge and best practices among farmers - Awareness of organic farming principles	AT, DK, FR, DE, HU
Climate change adaptation	- Climate change adaptation strategies - Ecosystem management and fostering biodiversity - Soil and water conservation - Risk assessment and resilience strategies	AT, DK, DE, IT
Digitalisation	- Introduction of new farming technologies - Use of digital tools for advice - Adoption of innovative practices like agroforestry - Digitalisation of organic agri-food supply chains	AT, DK, FR, DE, IT, RO

Source: own compilation based on national reports

4.3 Advisory system in the future

4.3.1 Desirable elements of an organic advisory system in 2030

The five key desirable elements of a future organic advisory system identified (and presented in Table 4.4) show that the advisory services should become more comprehensive, adaptive, and specialised while also becoming more affordable and accessible. To achieve this, advisors should receive greater support and improved training. Advisory service providers should be strengthened through enhanced collaborative knowledge-sharing and better coordination of their services, fostering stronger partnerships with other institutions and actor groups.

To become more comprehensive, adaptive, and specialised, organic advisory services must integrate key improvements across multiple areas. Developing value chain and market expertise in advisory services will ensure comprehensive support by covering the entire agricultural value chain, including market connections, processing, and marketing. Strengthening sector-specific and small-scale farming advisory services will provide dedicated support through independent specialist advisors and specialised services for small farms and part-time farmers. Building climate resilience and crisis adaptation competencies in advisory services will enhance advisors' ability to address climate adaptation, water availability, and extreme weather resilience through coordinated advisory networks and climate-smart training. Strengthening research-based and specialised advisory services will ensure that advisory practices are grounded in applied research, enhancing advisors' sector-specific expertise and promoting regenerative farming knowledge. Enhancing context-specific and systemic advisory approaches will equip advisors with the ability to analyse regional farm settings and provide cross-functional, strategic advice tailored to local socio-environmental conditions. Building advisory soft skills and farmer engagement will improve advisors' ability to foster trust, support change management, and strengthen relationships with farmers. Finally, enhancing mentorship and long-term support in advisory services will ensure sustained guidance for transitioning farmers through structured mentorship programs covering farm management, supply chains, and long-term engagement.

To ensure affordable and accessible advisory services, key improvements must focus on reducing costs and increasing availability. Improving the affordability and accessibility of advisory services involves providing subsidised, low-cost options, including free group events and farm visits, while ensuring that advisory support remains widely available to all farmers. Additionally, reducing administrative burdens will further enhance accessibility by streamlining processes and removing barriers to advisory services. Expanding collaborative and group-based advisory models will also play a crucial role by offering multi-partner advisory options to improve accessibility and foster collaboration. Providing financial support and discounted certification services for group-certified producers will further enhance affordability and encourage wider participation in organic advisory programs.

To ensure enhanced support and training for advisors, efforts must focus on strengthening training structures and promoting continuous learning. Strengthening organic advisory training and certification requires expanding and structuring training programs through universities, agronomic institutes, technical institutes, vocational schools, and national organic farming institutes to fully integrate organic farming into curricula. Accreditation should be required to establish baseline competency, limit segmentation, and provide

specialised training for niche productions. Additionally, organic farmers should be encouraged to rely on certified advisory services for compliance and quality guidance. Promoting continuous learning and knowledge exchange is essential to keeping advisors well-equipped and up to date. This includes providing ongoing training through peer exchanges, experimentation stations, and producer meetings, supported by a dedicated training organisation. Enhancing digital learning through high-quality e-learning materials and visual content will further strengthen knowledge accessibility. Advisors' digital competencies must also be improved to help them effectively leverage evolving technologies. Strengthening advisory training structures to support field engagement and establishing organised, financially supported peer-to-peer training programs will ensure that advisors continue to develop practical expertise and maintain strong connections within the organic farming community.

To ensure integrated and collaborative knowledge-sharing in organic advisory services, efforts must focus on strengthening collaboration, enhancing peer-to-peer learning, and leveraging digital tools. Enhancing collaboration and knowledge exchange among advisory organisations requires strengthening partnerships between organic advisory organisations to share experience and expertise at both national and international levels. Facilitating international knowledge transfer for advisory structures, services, and cross-linking initiatives will further promote best practices and innovation. Research collaboration should be encouraged to integrate scientific advancements into advisory practices, ensuring continuous improvement in organic farming methods. Strengthening demonstration farms and peer-to-peer knowledge exchange is essential for practical learning and experience sharing. Establishing demonstration farm networks will showcase best practices, while organising knowledge exchanges between large and small farms as well as experienced and novice producers will facilitate discussions on key topics such as soil management. Creating digital platforms for knowledge sharing and collaboration will further enhance advisory services by enabling efficient access to knowledge, tools, and best practices through a multi-level digital platform. AI-powered platforms, digital decision-making tools, and improved IT infrastructure will support communication, applications, and field planning. Additionally, a centralised, multilingual database of scientific and grey literature, managed by universities or research institutes, should be developed and integrated into key platforms to improve research accessibility and practical application.

To ensure coordinated advisory services, efforts must focus on multi-stakeholder collaboration, regional integration, and strong partnerships. Strengthening multi-stakeholder coordination in advisory services requires establishing coordinated platforms that connect farmers, advisors, researchers, teachers, and processors to facilitate knowledge exchange and collaborative advisory development. Providing meeting spaces and digital tools will further support cooperation and enable theme-based multi-partner advisory services. Improving coordination and integration of advisory services is essential to ensuring complementarity between different advisory initiatives. Strengthening regional coordination through collective intelligence and open innovation principles will help align diverse advisory services, while coordinating them effectively at the regional level will enhance efficiency. Developing hubs for gathering advisory needs and thematic priorities will further support integration within agricultural knowledge and innovation systems (AKIS). Strengthening partnerships will enhance collaboration across the organic sector by establishing and reinforcing partnerships among key actors. Advisory networks should be farmer-owned and controlled or developed in collaboration with traders to ensure practical and market-driven support. Joint advisory efforts

between public institutions and private organisations should be expanded while reinforcing the role of local institutions. Embedding organic advisors into strategic development plans will further support organic conversion and long-term sectoral development.

Table 4.4 on the next page presents the five key desirable elements of a future organic advisory system. Alongside each element, the necessary action categories required to achieve them are outlined. These action categories are derived from the proposed frameworks for action identified by workshop participants, who explored the essential components, enabling conditions, and funding mechanisms needed for an optimally functioning organic advisory system.

Table 4.4: Desirable elements of an organic advisory system in 2030

Desirable elements	Action categories	Proposed frameworks for action
Comprehensive, adaptive, and specialised advisory services	**Developing value chain and market expertise in advisory services:** - Establish specialised advisory groups covering the entire agricultural value chain, including market connections, processing and marketing (HU, RO, DK) **Strengthening sector-specific and small-scale farming advisory services:** - Develop independent specialist advisors dedicated to specific organic sectors (DE, DK) - Specialised advisory services for small farms and part-time farmers (DK) **Building climate resilience and crisis adaptation competencies in advisory services:** - Integrate advisory services into cross-regional development plans to address climate adaptation, water availability, and extreme weather resilience through coordinated advisory networks (DE) - Implement climate-smart and sustainability-focused advisory training (DE, IT) - Strengthen advisors' adaptability to respond to climate change, geopolitical instability, and socio-economic crises (FR) **Strengthening research-based and specialised advisory services:** - Develop advisory services grounded in research and practical application (IT, AT, HU, RO, DE) - Train expert advisors with broad specialisation and sector-specific expertise (AT, DE) - Ensure organic advisors remain highly competent, and credible, incorporating the latest advancements in applied research (HU, RO, DK) - Promote regenerative farming expertise among advisors (DK) **Enhancing context-specific and systemic advisory approaches:** - Equip advisors to provide cross-functional, systemic, and strategic advice tailored to local socio-environmental conditions (FR)	- Specialised advisory groups capable of providing comprehensive advice across the entire agricultural value chain, including elements such as market connections and processing (HU) (RO) - More and better advisory focused on marketing (DK) - Independent specialist advisors focused on specific organic sectors, e.g., dairy, legumes (DE), horticulture (DK), and small farms (DK) - Advisory services for small scale and part-time farmers (DK) - Advisory services grounded in research (IT) - Expert advisors with broad specialisation (AT) - Research-integrated advisory services (AT, DK) - Organic advisors maintain high levels of competency, practical knowledge, and credibility, leveraging the latest applied research in their advisory practices, and tailoring their advice to local socio-environmental conditions (HU), also should maintain diversified knowledge capacities (RO) - Advisors should offer practical, research-backed solutions to farmers' key challenges (DE, DK) - Advisors should be skilled in driving regenerative farming practices and strategies (DK) - Open-minded farmers, their receptiveness to new advisory knowledge supports advisor credibility (AT) - Be able to provide cross-functional advice (FR) - Providing systemic and strategic advice on a local scale, in a local context (FR) - Must be able to implement systemic advice based on an analysis of how the system functions in its environment (FR) - Need to have a very detailed knowledge of the regional settings of farms they are working with, and of the innovations adapted to that area. Their job will be to combine a large amount of information collected at different levels (generic versus local) to deliver advice tailored to a farm in each context (FR)

	- Strengthen advisors' ability to analyse regional farm settings, integrating both generic and local knowledge for farm-specific solutions (FR) **Building advisory soft skills and farmer engagement:** - Enhance advisory skills in fostering trust, change management, planning, and farmer engagement through humanities and social science techniques (FR) - Recognise the role of open-minded farmers in enhancing advisor credibility and knowledge exchange (AT) **Enhancing mentorship and long-term support in advisory services:** - Transitioning producers receive mentorship on farm management and supply chains (HU, RO) - Ensure long-term engagement in advisory services (DK) - Establish mentorship programs covering entire supply chains, also focusing on young farmers (HU, RO, IT)	- Supporting people, establishing a relationship of trust, helping farmers to plan, fostering change, encouraging questioning, etc.). The techniques used, some of which come from humanities and social sciences (pedagogy, psychology, etc.), need to be strengthened among advisers who currently lack training for these skills (FR) - For climate change adaptation, advisory services must be integrated into cross-regional development plans (that address interrelated issues like water availability, extreme weather resilience), which coordinated cross-regional advisory networks (DE) - Climate-smart advisory training (DE), sustainability-based advisory services (IT) - Ability to adapt is fundamental: Against a backdrop of climate change, geopolitical instability and socio-economic crisis, advisers will need to develop a strong capacity to adapt (FR) - Producers transitioning to organic practices receive ongoing mentorship to understand the fundamentals of farm management during the transition period (HU) (RO) - Mentorship programs covering entire supply chains (HU, RO) - Business tutoring and coaching for youth (IT) - Long-term advisory engagement (DK) - Mentorship programs covering entire supply chains (HU, RO)
Affordable and accessible advisory services	**Improving Affordability and Accessibility of Advisory Services:** - Provide subsidised, low-cost advisory services, including free group events and farm visits (AT, DK, FR) - Ensure high availability of advisory support for all farmers (AT) - Reduce administrative burdens to improve access to advisory services (DK) **Expanding Collaborative and Group-Based Advisory Models:** - Offer multi-partner advisory options to increase accessibility and collaboration (FR) - Provide financial support and discounted certification services for group-certified producers (HU)	- Subsidised advisory services for small farms (AT, DK) - High availability for farmers (AT) - Affordable for farmers (AT, FR) - A financially accessible advisory system for all farmers (free group events, free visits and low-cost individual follow-up) (FR) - Offering multi-partner advice options (FR) - Producers participating in group certification programs receive additional financial support and access to certification services at a reduced cost (HU) - Reducing administrative burdens (DK)
Enhanced support and	**Strengthening organic advisory training and certification:** - Expand and structure organic advisory training through universities, agronomic institutes, technical institutes and	- Organic advisors receive additional support and specialised training delivered through high-quality online e-learning materials and visual content (HU) (RO)

training for advisors	vocational schools and National Organic Farming Institutes, ensuring organic farming is integrated into curricula (IT, DK) - Require certification to ensure baseline competency and limit segmentation, while offering specialised training for niche productions (FR, DK) - Encourage organic farmers to rely on certified advisory services for compliance and quality guidance (HU) **Promoting continuous learning and knowledge exchange:** - Provide continuous training through peer exchanges, experimentation stations, and producer meetings, supported by a dedicated training organisation (FR) - Enhance digital learning with high-quality e-learning materials and visual content (HU, RO) - Strengthen advisors' digital competencies to effectively leverage evolving technologies (FR) - Improve advisory training structures that support field engagement (DK, FR) - Establish organised and financially supported peer-to-peer training programs (IT)	- Support the training of a new generation of advisors with new ideas about how to set up advisory services (DK, FR) - More university-level training for advisors (also on niche productions as poultry, vegetables, fruit and berries, nuts, etc.) (DK) - Require having a diploma or certificate that provides a basic level of competence, allowing advisors to support all types of farmers and thus limit segmentation (FR) - Shaping and structuring organic training through National Organic Farming Institutes (universities and agronomic institutes) (IT) - Shaping and structuring organic training through universities, technical institutes and agricultural vocational schools that should introduce organic farming in their curricula and programmes (IT) - More funding to be able to spend more time in the field with the farmers (FR) - Advisers should undergo continuous/annual training (peer exchanges, training, visiting experimentation stations, capitalising on producers' exchange meetings, etc.) And have time to do so. Goal is to have detailed knowledge of their area of expertise, and up to date with the latest innovative practices adapted to the area. Should share their knowledge with their less experienced peers (tutoring). A training organisation should be dedicated to maintaining/updating advisers' skills (FR) - Organic farmers should be required to utilise certified organic advisory services to ensure compliance with organic standards (HU) - Digital tools and artificial intelligence (the proliferation of applications to recognise pests, help with tactical decision-making, etc.), advisers' skills must evolve (FR) - Organised and financially supported peer-to-peer training (IT)
Integrated and collaborative knowledge-sharing in	**Enhancing collaboration and knowledge exchange among advisory organisations:**	- Greater cooperation between organic advisory organisations to share experience and knowledge, international knowledge-exchange (DK), research collaboration (IT)

organic advisory services	- Strengthen collaboration between organic advisory organisations to share experience and expertise at national and international levels (DK) - Facilitate international knowledge transfer for advisory structures, services, and cross-linking initiatives (DE) - Promote research collaboration to integrate scientific advancements into advisory practices (IT) **Strengthening demonstration farms and peer-to-peer knowledge exchange** - Establish demonstration farm networks to showcase best practices (IT) - Organise knowledge exchanges between large and small farms, and experienced and novice producers, on key topics like soil management (FR) **Creating digital platforms for knowledge sharing and collaboration:** - Develop a multi-level digital platform to enable advisory services to share knowledge, tools, and best practices efficiently (FR) - Enhance advisory services with AI-powered platforms, digital tools for decision-making, and improved IT infrastructure for communication, applications, and field planning (AT, DK, DE, FR) - Develop a centralised, multilingual database of scientific and grey literature, managed by universities or research institutes, with integration into key platforms like RIRAB, GRABIT, and TP Organics (IT)	- International knowledge transfer for structures, advisory services, cross-linking advisory services (DE) - Greater cooperation between organic advisory organisations (DK) - Platform for sharing and capitalising on knowledge at several levels: A digital platform shared between advisory services will enable advisers to share their knowledge and tools (FR) - Using new technologies for communication (AT) - Better IT services for both applications and field plans (DK) - AI-supported advisory platforms (DE) - Database of scientific and grey literature, with available translations (entrusted to universities or research and training institutes) (IT) - Availability of tools such as RIRAB, GRABIT, and the TP Organics platform (IT) - Demonstration farms networks showcasing best practices in (IT) - Encourage exchanges between 'large' and 'small' farms on cross-cutting topics (soils for example), and between experienced and novice producers (FR)
<u>Coordinated</u> advisory services	**Strengthening multi-stakeholder coordination in advisory services:** - Establish coordinated platforms connecting farmers, advisors, researchers, teachers, and processors for knowledge exchange and collaborative advisory development (FR) - Provide meeting spaces and digital tools to facilitate cooperation and theme-based multi-partner advisory services (FR) **Improving coordination and integration of advisory services:** - Strengthen regional coordination of advisory services to ensure complementarity, using collective intelligence and open innovation principles (FR) - Coordinate diverse advisory services at the regional level (FR)	- Coordination should bring together a wide range of players involved in the process of producing knowledge, from farmers to advisers, researchers, teachers and processors. Coordination should also provide a meeting place and tools to encourage collaborative working. Together, the advisory players will produce a variety of multi-partner advisory services (associating partners according to the advisory theme) (fr) - Stable and well-integrated partnership between different actors and roles of the organic sector (it) - A wide range of advice services coordinated at regional level (fr) - The advisory network is, directly or indirectly, owned and controlled by the farmers (hu) and traders (ro) it serves

	- Develop hubs for gathering advisory needs and thematic priorities to support AKIS (IT) **Strengthening partnerships:** - Establish and strengthen partnerships among key actors (IT) - Advisory networks owned and controlled by farmers (HU) and traders (RO) - Strengthen joint advisory between public institutions and private organisations, while reinforcing the role of local institutions (FR, HU, RO, IT) - Embed organic advisors in lags' strategic development plans (LEADER program) to support organic conversion (RO)	- Joint advisory between public institutions and private organisations, the former focusing on administrative and financing aspects and the latter on professional and technical areas (fr) (hu) (ro) - Reinforcing the role of local institutions in advisory systems (it) - Organic advisors should be present in strategic development plans of lags (leader program) in order to support conversion to organic among lags (ro) - Advisory services should work in a complementary way, thanks to effective coordination at regional level, using the principles of collective intelligence and open innovation (fr) - Development of hubs for the collection of needs and themes to support akis (it)

Source: own compilation based on national reports

4.3.2 Main obstacles to a well-functioning organic advisory system

By 2030, the development of a well-functioning organic advisory system faces five key obstacles, presented in Table 4.5. Training deficiencies, advisor shortages, and retention challenges arise from inadequate training programs and a limited advisor workforce. Knowledge gaps, market constraints, and conflicting interests hinder advisory effectiveness, driven by weak information-sharing mechanisms, insufficient market expertise, supply chain fragmentation, and undue influence from input suppliers. There is also misalignment with farmer needs. Financial and structural barriers further limit advisory access, including cost constraints and a shortage of demonstration farms, on-farm experimentation, and training opportunities. Governance inefficiencies, bureaucratic hurdles, and a lack of strategic coordination among advisory providers exacerbate inefficiencies, while weak accountability, limited market feedback, and inadequate impact monitoring undermine service effectiveness. Addressing these challenges requires a comprehensive, coordinated policy approach to strengthen advisory systems and support organic agriculture's long-term viability.

Training deficiencies, advisor shortages, and retention challenges weaken organic advisory services due to limited institutionalised training, lack of mandatory organic agriculture education, and insufficient professional development. High staff turnover and generational renewal issues, driven by inadequate funding and low career attractiveness, further exacerbate advisor shortages and hinder service continuity.

Knowledge gaps, market limitations, and conflicting interests undermine advisory services. The absence of a centralised hub, underutilisation of advisory tools, and weak regional cooperation restrict information accessibility and innovation adoption. Limited access to advisory innovation results and lack of vertical integration further hinder the uptake of new practices. Advisors' insufficient market expertise, weak supply chain connections, and lack of strategic partnerships reduce their ability to link farmers with market opportunities. Additionally, the influence of input suppliers, driven by commercial interests, threatens the independence and objectivity of advisory services.

A mismatch between advisory systems and farmer needs further weakens effectiveness. Advisory services often fail to align with farmers' expectations, as many struggle to identify farmers' needs and favour ready-made solutions over long-term systemic guidance. Gaps in training and specialised expertise, particularly in emerging areas like new crops and climate change, limit the ability to provide multidisciplinary support. Farmers with less technical training require a stronger focus on foundational knowledge, while traditional farmers prioritise marketability over innovation, creating additional challenges for advisory adaptation.

Financial and structural barriers limit advisory access, particularly for small farmers, due to high costs, sectoral disparities, and insufficient subsidies. Short-term funding and limited resources hinder service quality and knowledge updates. A shortage of demonstration farms and on-farm experimentation reduces hands-on learning, while time and travel constraints further restrict farmer participation in training.

Governance and efficiency challenges weaken advisory services due to excessive administrative burdens, complex certification and legal frameworks, and regulatory complexities in managing public funds. Fluctuating regulations, technology, and market conditions make long-term planning difficult. Additionally, the lack of accountability, impact monitoring, and market feedback undermines advisory credibility and effectiveness.

Table 4.5 below outlines the key obstacle categories hindering the development of a well-functioning organic advisory system. Each category is accompanied by a list of specific obstacles identified by workshop participants. These obstacles stem from observed challenges reported by participants who were asked to identify the main obstacles to develop a well-functioning organic advisory by 2030. The final column indicates the countries where participants reported obstacles within each category.

Table 4.5: Main obstacles to a well-functioning organic advisory system

Obstacle category	Key obstacles by category	Detailed obstacles reported	Countries reporting obstacles from that category
Training deficiencies, advisor shortages, and retention challenges	- limited institutionalised training, professional development, and no mandatory organic agriculture education hinder advisor expertise (HU, RO, AT, IT, DE, FR) - advisor shortages and high staff turnover, generational renewal issues driven by insufficient funding, low career attractiveness, that weaken advisory services (RO, DE, DK, FR, AT)	- insufficient number of qualified advisors, who often lack adequate knowledge about domestic organic farming practices and even less about products (especially on livestock farming) (HU) (RO) - lack of training for advisors (RO) - lack of incentives to become and advisor (RO) - lack of institutionalised training courses (IT) - no mandatory training on organic agriculture (IT) - shortage of skilled technicians and limited training opportunities (IT) - lack of well trained and skilled advisors (AT) - gap in the vocational training (DE) - lack of training makes it difficult to provide systemic advice (combining expertise and strategic analysis) essential in agroecology. Advisors should develop multiple skills over time, keep abreast changes and trends, which requires time to learn leadership, uncertainty management and teaching skills (FR) - lack of generational renewal (DE, DK) - high fluctuation of advisors (AT) - shortage of advisors: funding for advisory services is insufficient to provide the appropriate human and financial resources, careers in advisory services are not sufficiently attractive (low pay, lack of recognition, career development) (FR) - there is too high a turnover of advisory staff (FR)	HU, RO, IT, AT, FR, DE, DK

Knowledge Gaps, Market Limitations, and Conflicting Interests in Advisory Services I.	**Gaps in information sharing and innovation adoption:** - absence of a centralised hub and poor utilisation of existing advisory tools and resources limit information accessibility (IT) - insufficient exchange of information and cooperation between regions and organisations weakens advisory effectiveness (AT) - limited access to advisory innovation results and lack of vertical integration hinder the adoption of new practices (FR, DE)	- lack of a Centralised Information Hub for Advisory Resources (IT) - poor valorisation of available tools, existing information and materials (IT) - insufficient exchange of information and cooperation between regions and organisations (AT) - promoting innovations in advisory services is hindered by the inaccessibility of the results (FR) - lack of vertical integration prevent innovation (DE)	IT, AT, FR, DE
Knowledge Gaps, Market Limitations, and Conflicting Interests in Advisory Services II.	**Limited market expertise and weak supply chain integration**: - advisors' limited knowledge of market conditions, supply chains, and emerging trends, combined with weak partnerships, hinders their ability to connect farmers with market opportunities (RO, FR, IT)	- consultants do not have in depth knowledge about market conditions and where farmers should find market opportunities (RO) - there is a general lack of knowledge about market trends / specific issues (variety references in market gardening, adaptation to climate change, etc.) (FR) - gearing advice to match the product market (supply and demand) and anticipate opportunities is difficult due to a lack of information and market transparency on prices and volumes required. Additionally, the impacts of advice on this market are unknown (FR) - lack of partnership linked to a concrete supply chain, makes it difficult to have a concrete impact (IT)	RO, FR, IT
Knowledge Gaps, Market Limitations, and Conflicting Interests in Advisory Services III.	**Influence of input suppliers on advisory independence**: - input suppliers prioritise business interests over independent advisory services, potentially limiting unbiased information access (HU, RO)	- input suppliers and agents share information with customers based on their business interests. Suppliers might even oppose the establishment of independent advisory services (HU, RO)	HU, RO
Mismatch between advisory systems and farmer needs	**Mismatch between advisory systems and farmer needs:** - advisory services are not fully adapted to farmers' needs, who struggle to identify their needs and prefer readymade solutions over long-term systemic advice (FR, IT)	- advisory services are not adapted to the farmers' real needs (FR) - farmers are less prone to seek systemic advice because it is not a readymade solution (FR) - the renewal of the population of farmers who receive less and less technical training, calls for refocusing advice on the fundamentals (FR)	FR, HU, IT

	- gaps in training and specialised knowledge (e.g., new crops, climate change) limit the ability to provide systemic and multidisciplinary advice (AT, FR) - farmers with less technical training require a refocus on fundamentals in advisory services (FR) - traditional farmers prioritise marketability over innovation (HU)	- there is a difficulty in establishing a long-term approach to advice (FR) - more and more special knowledge needed (new crops, climate change, etc.) (AT) - farmers, viewing farming as a family legacy, show little interest in modern knowledge, and are unwilling to invest in development. Most farmers are primarily driven by the marketability of their products. Younger farmers are more open, especially to good practices (HU) - farmers have difficulty identifying their advisory needs, self-assessment tools, skills assessments needed (FR) - should be more efforts made for teasing out unspoken needs (not just emergencies) (IT)	
Financial and Structural Barriers to Advisory Access and Learning I.	**Financial barriers to advisory access:** - high costs and lack of collective action make advisory services financially inaccessible to small and part-time farmers (HU, RO, FR, DK) - Small farm sise and sectoral/geographic disparities limit knowledge circulation and access to advisory support (IT, DE) - Short-term funding, lack of financial support, and insufficient subsidies weaken advisory services, especially during transition periods (RO, AT, DE, FR) - Limited financial resources hinder the regular updating of technical and economic references essential for organic production advice (FR)	- individual farmers, especially those with smaller operations, cannot afford advisory services due to the lack of collective action (HU) (RO) - farm/business size (depends on sector and geography) hinders the circulation of knowledge (IT) - advisory services are financially inaccessible to certain producers ('small' producers) (FR) - there is a need to foster structures for small companies/farms (DE) - small scale and part-time lack access to advisory services which are privately managed (DK) - funding and the definition of missions are too short term (FR) - lack of financial support (RO) - lack of funding and subsidies (AT) - financial aspect of advisory service, especially in the transition (DE) - technical and economic references need to be updated regularly for all organic production, to support advice. The lack of references is linked to a lack of resources, particularly financial, to acquire them (FR)	HU, RO, IT, FR, DE

Financial and Structural Barriers to Advisory Access and Learning II.	**Limited availability of demonstration farms, on-farm experimentation, and training opportunities:** - a shortage of demonstration farms and insufficient support for on-farm experimentation hinder farmers' ability to adopt best practices and develop evidence-based advisory services (HU, RO, FR) - farmers struggle to attend group events and training due to time and travel constraints (FR)	- there is a shortage of demonstration farms and exemplary models to follow (HU, RO) - there is too little support for on-farm experimentation and innovation to reduce the amount of risk taken by the farmer experimenting. As a result, experiments are not always carried out successfully, and it is difficult to develop advice on them (FR) - farmers are not available (in terms of time and travel) to take part in group events or training courses (FR)	HU, RO, FR
Governance, Efficiency, and Accountability Challenges in Advisory Services I.	**Lack of strategic coordination of advisory service providers:** - weak coordination, and competition between advisory structures hinder collaboration and complementarity (FR) - institutional fragmentation and lack of political vision disrupt the organisation and strategic development of organic agriculture (IT) - limited institutional knowledge about organic farming weakens policy-making and advisory support (IT) - absence of public-private dialogue and weak consultancy from the public sector reduce the effectiveness of advisory services (RO)	- there is also a lack of organisation of the relay within or between the structures. Competition between the different types of advisory services is strong and limits collaboration and complementarity (FR) - institutionalisation vs. radicalisation (IT) - lack of political will/vision and connection of the different steps and phases (lack of organisation) (IT) - institutional officials do not really know what organic is about (IT) - repositioning organic production and products in a more strategic way (IT) - absence of public private dialogue, and weak consultancy from public sector (RO)	IT, FR, RO
Governance, Efficiency, and Accountability Challenges in Advisory Services II.	**Bureaucratic burdens and administrative inefficiencies in advisory services:** - excessive administrative tasks reduce advisors' capacity to provide professional advice and pursue further training (HU, RO, DK) - complex certification processes, legal frameworks, and oversight mechanisms create bureaucratic challenges for both advisors and farmers (HU, RO, DK) - high bureaucracy in handling public funds complicates the management and accessibility of advisory services (AT)	- advisors spend too much time on administrative tasks, reducing their capacity to provide professional advice and pursue further training (HU, RO, DK) - current certification process, legal framework, oversight mechanisms require significant improvements (RO) - high amount of bureaucracy in handling public funds for advisory services (AT) - conversion and certification are heavily bureaucratic for advisors as well as for farmers (DK) - the current certification process, legal framework, and oversight mechanisms require significant improvements (HU)	HU, RO, AT, DK, FR

	- long-term advisory planning is difficult due to fluctuating regulations, technology, and market conditions (FR)	- the regulatory and technical context and the markets are in flux (FR)	
Governance, Efficiency, and Accountability Challenges in Advisory Services III.	**Lack of accountability, market feedback and impact monitoring:** - lack of accountability, impact monitoring, and market feedback undermines the credibility, relevance, and effectiveness of advisory services (HU, RO, FR)	- advisors frequently do not take responsibility for their advice, leading to a lack of trust and credibility among farmers. Recommendations from other farmers are the primary basis for credibility (HU) (RO) - there is inadequate market feedback regarding the quality and benefits of advisory services (HU) - lack of tools or methods to monitor the impact of advisory services (FR)	HU, RO, FR

Source: own compilation based on national reports

4.3.3 Necessary steps to establish a well-functioning organic advisory system by 2030

The next steps toward establishing a well-functioning organic advisory system require immediate and concrete actions across five key areas:

- enhancing advisory training, skills, and career development to build expertise
- restructuring, integrating, and expanding advisory services for more comprehensive support
- strengthening knowledge hubs and fostering collaboration among advisors
- improving the accessibility, availability, and affordability of advisory services to ensure wider reach
- raising awareness about organic farming among decision-makers to drive policy and institutional support.

Each of these actions plays a crucial role in strengthening the organic advisory system and ensuring its long-term effectiveness.

To strengthen the organic advisory system, it is essential to enhance advisory training, skills, and career development through a series of targeted measures. First, organic farming should be systematically integrated into university, vocational, and agronomic training programs, with strong support from governments and institutions to ensure the development of a well-prepared advisory workforce. Advisor training must be reinforced through a balanced approach that combines theoretical knowledge, practical applications, research-backed methodologies, and the use of digital learning tools to facilitate continuous professional development. Additionally, expanding sector-specific training will equip advisors with specialised expertise, enabling them to address the unique challenges of different organic farming sectors effectively. Peer-to-peer learning should be actively promoted through study trips, field visits, technical demonstrations, and structured mentorship programs, fostering knowledge exchange and strengthening advisory networks. Furthermore, advisors need to develop strong communication and internationalisation skills to engage effectively with diverse stakeholders and stay informed on global best practices.

To address the challenges of generational renewal and high turnover rates among advisors, it is crucial to improve working conditions by enhancing salaries, optimising workloads, and providing clear career incentives. Additionally, reevaluating advisor certification criteria will help ensure that professional standards align with the evolving needs of the organic sector. These measures will contribute to building a more skilled, motivated, and sustainable advisory workforce capable of supporting the long-term growth of organic farming.

To enhance the effectiveness of organic advisory services, it is essential to restructure, integrate, and expand their scope to provide more comprehensive support to farmers and stakeholders. Strengthening state advisory services with sector-specific expertise will ensure that advisors are equipped to address the unique needs of organic farming across different agricultural domains. Additionally, advisory services should adopt a more integrated, cross-sectoral approach, offering guidance not only on agronomic practices but also on finance, digitalisation, and legal issues, thereby providing farmers with holistic support. A key aspect of this restructuring is ensuring a balanced approach between individual and collective advisory services, allowing farmers to receive tailored one-on-one guidance while also

benefiting from shared knowledge and collaborative learning in group settings. Advisory services must also expand their focus to include climate adaptation and local sustainability, ensuring that organic farming remains resilient in the face of environmental challenges. Special attention should be given to supporting farmers in transition to organic farming by providing tailored guidance throughout the conversion process. The establishment and support of demonstration farms and living labs will be instrumental in showcasing best practices, fostering innovation, and enabling hands-on learning experiences. Additionally, long-term, market-driven mentorship programs should be developed across the entire value chain, alongside specialised advisory groups that provide targeted support in key areas of organic farming. To improve efficiency and focus, administrative and practical advisory services should be separated, ensuring that advisors can dedicate more time to providing hands-on support to farmers while administrative tasks are streamlined. These measures will create a more integrated and effective advisory system capable of addressing the diverse and evolving needs of the organic sector.

To enhance the effectiveness and reach of organic advisory services, it is crucial to establish robust knowledge hubs and foster stronger collaboration among advisory organisations. Organic knowledge hubs should be developed at multiple levels to centralise key resources, including research projects, publications, and best practices, ensuring that advisors and farmers have access to the latest developments in the sector. Complementing this, systematic dissemination tools and digital platforms should be developed and effectively managed to facilitate seamless knowledge-sharing and improve access to critical information.

Increase awareness and provide training for public administration and policymakers on organic agriculture and advisory structures to strengthen institutional support and informed decision-making. The creation of advisory networks at various levels will further strengthen cooperation, enabling advisors to share expertise, align methodologies, and provide more specialised support. To improve the accessibility, availability, and affordability of advisory services, securing sustainable funding is essential, particularly to ensure that small-scale farmers can benefit from high-quality advisory support. Additionally, group certification initiatives should be developed to reduce the financial and administrative burden on farmers seeking organic certification. Direct access to advisors should also be facilitated through comprehensive directories, making expert guidance more readily available. Advisory services must be extended to support cross-regional development plans related to climate adaptation and water management, and other key areas, ensuring that organic farming remains aligned with broader sustainability efforts. Finally, bureaucratic procedures related to organic conversion and funding must be simplified to make the transition to organic farming more efficient and accessible. By implementing these measures, the organic advisory system can become more structured, collaborative, and responsive to the evolving needs of farmers and stakeholders.

Table 4.6 below outlines the key steps required to strengthen organic aquaculture advisory services. Each category is accompanied by a list of specific necessary steps identified by workshop participants. These steps stem from observed challenges and gaps in advisory services reported by participants who were asked to identify the critical actions needed for improvement—the next steps forward, the immediate and concrete actions required, and the stakeholders responsible for implementation.

Table 4.6: Necessary steps to establish a well-functioning organic advisory system by 2030

Categories of necessary steps	Necessary steps by category	Proposed necessary steps in detail, based on the country reports
Enhancing advisory training, skills, and career development	• **Integrate organic farming into university, vocational, and agronomic training** with government and institutional support • **Strengthen advisor training** with a mix of theory, practice, research-backed methods, digital learning tools, • **Expand the advisors' sector-specific training,** • **Enhance peer-to-peer learning** through study trips, field visits, and technical demonstrations, and mentorship programmes, • **Enhance advisors' communication and internationalisation skills** • **Address lack of generational renewal and high advisor turnover** by enhancing salaries, optimising workload, provide career incentives, reevaluating advisor certification criteria	- **Better education and training for advisors (AT)** - **Comprehensive training for advisors (HU, RO):** balanced theory and practice, methodological training, best practices, and reference demonstration farms: Actors: National Chamber of Agriculture, ÖMKI (HU), public-private partnerships and regional clusters (RO), Actions: implement training programs incorporating best practices and high-quality online content (HU), update the Organic Farming Consultant's Guide (RO) - **Education and training focus for advisors (IT):** Actors: Universities, Ministry of Education, Actions: introduce organic farming into university curricula, technical institutes, and vocational schools; mandate organic modules in agricultural institutes; map training offers; establish agreements for organic training between national agronomic agencies and organic representatives - **Reassessment of advisor certification requirements (HU):** Actors: certification bodies, educational institutions, Actions: rethink certification criteria to ensure they are not strictly tied to higher education degrees - **Sector-specific training for advisors (FR):** Actors: government, Actions: develop courses in deficient areas such as arboriculture and market gardening, support initial training content development and promote apprenticeship - **Develop mentorship programs for young, novice advisors (AT, FR)** - **Education program for vocational training teachers (DE):** Actors: National government, federal states, Actions: vocational training instructors have sufficient knowledge of organic farming - **University-level training for advisors (DK):** Higher education for new advisors and farmers, focusing on niche production areas like poultry, vegetables, fruits, berries, and nuts. - **Study trips for organic and conventional advisors (FR):** Visits within departments or neighbouring countries to foster curiosity and encourage innovative solutions while reducing competition issues. - **Technical field visits for students and new advisors (FR)**: Hands-on experience to strengthen field knowledge in initial training. - **Development of communication skills (HU):** Actors: Training institutions, advisors, Actions: Improve advisors' communication abilities for greater effectiveness and credibility - **Development of internationalisation skills (RO):** Actors: Training institutions, advisors, researchers, Actions: Strengthen advisors' market access skills to enhance advisory impact - **Understand the high turnover of advisors (FR)**

		- **Increase the attractiveness of consultant's job with proper salaries (RO)** - **Develop a plan that tackles the generational renewal (FR)** - **Optimise advisors' workload (FR)** to include time for face-to-face training, as well as time for exchanges between peers
Restructuring, integrating, and expanding advisory services for a more comprehensive support	• **Strengthen state advisory services with sector-specific expertise** • **Provide more integrated, cross-sectorial advisory services** in finance, digitalisation, and legal issues • **Integrate individual and collective advice** • **Expand advisory services to support climate adaptation and local sustainability** • **Support farmers in transition** • **Establish and support demonstration farms and living labs** • **Develop long-term, market-driven mentorship programs across the entire value chain, specialised advisory groups to provide comprehensive value chain support** • **Separate administrative and practical advisory services**	- **Provide more comprehensive advice (HU):** Actors: National Chamber of Agriculture, Research Institute of Organic Agriculture (ÖMKI), Action: Form specialised advisory groups to provide comprehensive advice across the agricultural value chain, including market connections and processing. - **Make advice more integrated (RO):** Regarding the future, an optimal green advice should look like an integrated one, covering more issues, not only technical but financial, market access, certification rules, legislation etc. Such an integrated advisory service can be described as a knowledge network - **Extension of consultancy from organic to climate change (RO):** Actors: Certification Bodies, researchers, Action: develop champions and new voluntary schemes. - **Practice-oriented and locality-sensitive research and advisory services (HU, RO):** Actors: research Institutions, ÖMKi (HU), Research Institutions, Business associations, innovation centres, living labs (RO), Action: focus on applied research and advisory services that address practical agricultural challenges and consider local socio-ecological challenges (HU, RO) - **Secure mentoring across the entire value chain (HU, RO):** Extend mentoring to cover the entire value chain (selecting crops, processing, product, market), involving industry stakeholders with minimal state influence. Actors: Industry stakeholders, advisors (HU), trader, processors, distributors, advisors (RO), Action: provide mentoring that covers the entire value chain (processing, market, product) with minimal state influence (HU) - **Long-Term Farmer-Advisor Relationships (HU):** Develop long-term mentoring relationships between farmers and advisors, funded by market mechanisms rather than grants. Actors: advisors, farmers, Action: Foster long-term mentoring relationships between farmers and advisors, funded through market mechanisms rather than grants - **Long-term, long-lasting farmer-advisor relationships, based on interactions platforms; sector specific (RO):** Actors: Advisors, Farmers, clusters, Action: Foster long-term mentoring relationships between farmers and advisors, funded through market mechanisms rather than grants - **Supporting farmers in transition (RO):** through feasibility check, conversion planning service, assistance to secure compliance with legal requirements, assistance with documentation, technical assistance, facilitation of networking, digitalisation, providing access to relevant information through: operational network, field trips, one/multiple day seminars, Internet platform on organic, online database, videos, social media, radio, podcast, online support, leaflets, brochures, conversion planning tools.

		- **Establishment of demonstration farms (HU) and living labs (RO):** Actors: government, agricultural organisations, Action: develop and support demonstration farms to serve as reference models and showcase best practices. - **Combine individual and collective advice (FR):** combine individual and collective advice and make the most of their complementary roles, peer-to-peer exchanges also need to be combined with advisory services - **Establishing specialised advisory networks (RO):** Actors: DAJ (ministry of agriculture territorial units) network of the ministry combined with rural network and umbrella associations of farmers and clusters, Action: form specialised advisory groups to provide comprehensive advice across the agricultural value chain, including market connections and processing. - **Development of specialist advisors (DE)** Development of specialist advisors in the state advisory service that are only specialists in their area. Scope/responsibility: State advisory service. - **Establishing specialised and sector-specific advisory services (HU, RO):** Separate administrative advisory services (which currently exist) from professional/practical advisory services (which do not exist in Hungary) (HU), divided by sectors (crops, fruits, etc.) and cross-sectorial issues (finance, digitalisation, IPR etc) require specialised advisory services that apply across multiple agricultural sectors (RO)
Strengthen knowledge hubs and advisory collaboration	• **Establish organic knowledge hubs at multiple levels to centralise projects, publications, and best practices.** • **Develop and manage systematic dissemination tools and platforms for effective knowledge sharing.** • **Create (thematic) advisory networks at multiple levels to strengthen cooperation and expertise-sharing between advisory organisations**	- **Strengthening Innovation, Knowledge Hubs, and Dissemination in Organic Farming (IT):** Actors: MASAF, regions, Action: Launch a public contest/competition of innovative ideas to be made available for EIPs to propose projects. To be managed within the framework of a national hub, e.g., SINAB. Actors: collective effort is needed from different actors of the sector, Action: Build hubs with 'everything' available about organic (projects, publications, practices, etc.) at EU level towards a well-coordinated organic farm knowledge, Actors: MASAF, regions, associations, Action: Creation and coordination of dissemination tools (videos, fact sheets, dossiers) on organic practices and their systematised collection, Actors: MASAF or regions, producer associations, umbrella organisations, Action: Create thematic or regional hubs or networks with large participation of technicians and companies, Actor: MASA, Action: practice sharing, collection and organisation of materials and available results for territorial organisations and territorial planning. - **Improve the circulation of knowledge and innovations between the various players, creation of a national platform shared by all the players in the advice sector (FR)** - **Promote a greater cooperation between advisory organisations at national and international level (DK)** to share experience and knowledge. The sector of horticulture would benefit from

		building an international horticultural advice network to have more knowledge on advisory to small new nurseries
Improve accessibility, availability and affordability of advisory services	• **Secure funding to improve the availability of advisory services, especially for small-scale farmers** • **Develop group certification initiatives** • **Facilitate direct access to advisors through directories** • **Make advisory services available for cross-regional development** • **plans** on climate, water, and other key areas • **Simplify bureaucratic procedures for conversion and funding**	- **Secure funding to support advisory services (HU, RO, FR)** CAP, national, EU sources - **Advice should be made more accessible to farmers (FR):** by introducing a technical advice voucher, which would enable farmers to have a contact adviser who, in addition to providing technical advice, could direct them to the right people to answer their questions. This would require a cross-disciplinary directory to be set up, listing all the skills available. - **Secure funding for higher integration of small-scale farmers into the advisory offers (DK),** also to support group certification programs (HU) - **Provide funding to secure affordability (DE):** funding for a low level affordable advisory system, responsible: State advisory service, federal regions and national government. - **Simplify bureaucratic procedures for conversion and funding (DK)** - **Simplification of procedures (IT):** Actors: MASAF, regions, organic sector representatives, Action: bureaucracy-free organics. Interregional coordination table for simplification in the organic sector. - **Make advisory services available for cross-regional development plans (DE):** Personal in the federal regions that work cross-regional to create a development plan (climate, water, etc.) and make advisory service available. Responsibility: national/federal state.
Raise awareness about organic farming among decision-makers	• **Enhance awareness, and train public administration and decision-makers on organic agriculture, including relevant advisory structures**	- **Awareness training for public administration and decision makers (IT):** Actors: MASAF, regions, Actions: Training organic decision makers (MASAF, Regions, Central Inspectorate of Quality Protection and Fraud Repression-ICQRF). Set up an office 'for organic' at national and regional level, with highly trained staff, responsible for the communication with the different actors of the sector. Define the steps and conditions to be taken to raise awareness in public administration.

Source: own compilation based on national reports

4.4 Advisory for organic aquaculture—the Greek case

Greece's current advisory actors in the organic aquaculture sector include the Ministry of Rural Development and Food, which plays a regulatory and licensing role but lacks a dedicated division for organic aquaculture, resulting in limited support for this sector. The Hellenic Aquaculture Producers Association (HAPO) provides some representation but focuses primarily on marine aquaculture, leaving freshwater producers without strong advocacy. Universities like the Aristotle University of Thessaloniki (AUTH) and research institutions like Hellenic Centre for Marine Research (HCMR) and Hellenic Agricultural Organisation (ELGO DIMITRA) contribute through research and knowledge transfer, though this collaboration requires further funding and public outreach. Private entities, including AMBIO Consulting and TUV Hellas, also engage in the sector, though their impact is less clear due to limited government connection and funding. Overall, the advisory landscape is fragmented, with a notable communication gap between the Ministry, producers, and other stakeholders, underscoring the need for a more integrated and supportive institutional framework.

Greece's main obstacles to a well-functioning organic advisory system include the lack of a dedicated division for organic aquaculture within the Ministry of Rural Development and Food, as aquaculture is currently managed under the Fisheries Directorate, where organic production is not prioritised. There is a notable absence of communication between the Ministry and fish farmers, with limited dissemination of funding opportunities and capacity-building. Freshwater aquaculture producers lack representation, as HAPO primarily serves marine producers, resulting in an uneven advisory landscape. The term AKIS is not widely known among the fish farming community, highlighting a gap in knowledge transfer. Additionally, there is insufficient political motivation to advance organic aquaculture, compounded by inadequate long-term funding for applied research. Complex bureaucracy, high certification costs, and a lack of public awareness campaigns further exacerbate these challenges, impeding the development of a supportive advisory framework.

To establish a well-functioning organic advisory system for aquaculture in Greece by 2030, several key actions are necessary. First, a dedicated division for organic aquaculture must be created within the Ministry of Rural Development and Food to address the sector's needs. Strengthening communication between the Ministry and fish farmers is crucial to provide timely updates on funding opportunities, capacity-building, and sector developments. Expanding representation for freshwater aquaculture producers is essential to ensure balanced support across the industry. The transfer of knowledge and expertise between universities, research institutions, and producers should be enriched with increased funding for applied research and public engagement. Simplifying bureaucratic processes and certification requirements will reduce the administrative burden on producers. Public awareness campaigns must be launched to educate consumers on the benefits of organic aquaculture, creating market demand. Additionally, mechanisms to facilitate collaboration across the value chain and sustained government support for organic initiatives are critical to overcoming current

gaps and ensuring long-term success. A comprehensive institutional framework that integrates marine and freshwater producers while fostering collaboration across the value chain will be vital for the future development.

4.5 Proposed actions for strengthening organic advisory services and capacity building

Foster mutual learning processes and initiate the transformation of existing advisory services to enhance the effectiveness of knowledge transfer and improve advisor competency

The study strongly supports the goal statement by emphasising mutual learning, structural transformation, and competency enhancement in advisory services. The focus on peer-to-peer learning, digital platforms, restructuring advisory services, research integration, and specialised training directly contributes to improving knowledge transfer and advisor effectiveness.

Proposed actions in line with this goal:

- **Enhance peer-to-peer learning and knowledge exchange:**
  - Establish structured mentorship programs linking experienced advisors with new entrants.
  - Promote study trips, field visits, and technical demonstrations to foster practical knowledge-sharing.
  - Strengthen demonstration farms and living labs to facilitate hands-on learning and innovation adoption.
- **Develop collaborative knowledge Hubs and digital platforms:**
  - Create organic knowledge hubs at multiple levels to centralise research, best practices, and sectoral expertise.
  - Invest in digital platforms and dissemination tools to improve accessibility and information-sharing.
  - Establish a centralised, multilingual database of scientific and practical knowledge, managed by research institutions.
- **Transform advisory services to address emerging challenges:**
  - Expand advisory services to include finance, digitalisation, and legal aspects for holistic farmer support.
  - Ensure a balanced approach between individual and collective advisory services, promoting both personalised guidance and collaborative learning.
  - Align advisory services with regional and sectoral development plans to support broader agricultural knowledge and innovation systems (AKIS).

- **Strengthen training and professional development for advisors:**
    - Integrate organic farming into university, vocational, and agronomic training programs to develop a well-prepared advisory workforce.
    - Establish mandatory certification programs to standardise quality and ensure advisors meet the evolving needs of organic farming.
    - Promote continuous learning through digital learning tools, specialised sector-specific courses, and international knowledge exchange.

Stimulate the initiation of viable new conversion and organic advisory services in countries where they are not yet available

The study strongly supports this goal statement by outlining steps to establish new advisory services, support organic conversion, and create a sustainable advisory framework in regions where they are not yet available. Key actions include expanding advisory networks, securing funding, simplifying conversion processes, strengthening advisor training, and fostering institutional support—all crucial for launching viable organic advisory services in new countries.

Proposed actions in line with this goal:

- **Expand organic advisory services to new regions:**
    - Strengthen state advisory services with sector-specific expertise to ensure tailored organic farming support.
    - Promote a cross-sectoral approach, integrating agronomic, financial, digital, and legal guidance into advisory frameworks.
    - Extend advisory services to cross-regional development plans, particularly in climate adaptation, water management, and sustainability efforts.
- **Establish organic knowledge hubs and advisory networks:**
    - Develop organic knowledge hubs in emerging organic regions to centralise information and best practices.
    - Facilitate international knowledge transfer by promoting advisory cooperation across borders.
    - Create coordinated organic advisory networks at national and regional levels to improve knowledge-sharing and advisory alignment.
- **Support organic conversion processes:**
    - Expand advisory services specifically for farmers transitioning to organic, offering customised guidance.
    - Establish long-term mentorship programs to assist farmers throughout the conversion process.

  - Develop and support demonstration farms and living labs to showcase best practices and facilitate hands-on learning.

- **Address financial and structural barriers to advisory expansion:**

  - Secure sustainable funding for advisory services to ensure affordability, particularly for small-scale farmers.
  - Simplify bureaucratic procedures related to organic conversion and funding to facilitate easier transition processes.
  - Provide subsidised, low-cost advisory options to increase accessibility in new and underserved regions.

- **Build institutional and policy support for advisory services:**

  - Raise awareness among decision-makers about the benefits of organic farming and the role of advisory services.
  - Provide training for public administrators and policymakers on organic advisory structures to strengthen institutional backing.
  - Embed organic advisory services into national and regional agricultural strategies to ensure their long-term viability.

Develop effective funding mechanisms and foster public-private partnerships to develop or scale up advisory services

The study strongly supports this goal statement by detailing funding strategies, multi-stakeholder partnerships, and investment plans that enable the development and scaling up of organic advisory services. It highlights sustainable funding mechanisms, public-private collaboration, and strategic investment as essential elements for expanding and strengthening advisory services.

Proposed actions in line with this goal:

- **Secure sustainable public funding for advisory services:**

  - Establish long-term financial commitments from governments to ensure stable funding for advisory programs.
  - Advocate for subsidised advisory options, including group training events and farm visits.
  - Reduce financial barriers for farmers by developing group certification initiatives to lower administrative costs.

- **Enhance public investment and policy support:**

  - Integrate organic advisory training into national education programs, ensuring ongoing government support.

- Provide direct financial support for organic knowledge hubs and demonstration farms to enhance their role in advisory systems.
- Simplify bureaucratic funding processes to make advisory services more accessible and efficient.

- **Foster public-private partnerships for advisory development:**

  - Promote joint advisory initiatives between public institutions and private organisations to enhance service quality and outreach.
  - Strengthen collaboration between farmers, advisors, researchers, and industry stakeholders to align advisory services with market needs.
  - Encourage co-financed advisory initiatives, where public and private sectors collaborate on funding models to ensure service sustainability.

- **Scale up advisory services through strategic investment:**

  - Embed organic advisory services into regional and national development plans to secure long-term financial and structural backing.
  - Strengthen regional coordination of advisory services to improve efficiency and accessibility.
  - Invest in IT infrastructure, AI-powered platforms, and digital decision-making tools to expand the reach and impact of advisory services.

Enhance sector-specific advisory services for organic aquaculture

Organic aquaculture requires specialised advisory support due to its unique challenges, including water quality management, organic feed regulations, and ecosystem sustainability.

Proposed actions in line with this goal:

- **Establish a dedicated division for organic aquaculture (in Greece) within the Ministry of Rural Development and Food, ensuring targeted guidance for both marine and freshwater producers**

- **Expand digital knowledge hubs, demonstration farms, and living labs** to strengthen knowledge transfer and hands-on training, while cross-sector collaboration with research institutions and environmental agencies and align advisory services with broader sustainability and water management strategies.

5 Conclusions and recommendations

Achieving the 25% organic land target by 2030 requires significantly increasing farmer conversions while retaining existing organic farmers. However, recent disruptions, such as food price increases due to the war in Ukraine, have dampened interest in conversion and led to declines in organic land area. To meet this target, interventions must address key challenges faced by farmers and advisory systems and ensure sustainable funding for organic transition support.

Overcoming farmer obstacles

Farmers considering conversion or maintaining organic agriculture face technical, economic, and regulatory barriers. To address these:

- **Enhance advisory support**: Provide tailored technical guidance, particularly for niche sectors (e.g., horticulture, fruit, vine, smallholders) through improved information services and peer-to-peer learning networks.
- **Strengthen financial viability**: Increase transparency and availability of organic market data, pricing trends, and financial results to aid informed decision-making. Establish dedicated advisory services focused on market and business aspects of organic farming.
- **Develop market and supply chain support**: Foster regional and sectoral infrastructure to enhance market access and farm gate prices, leveraging successful models such as Romanian cluster projects.
- **Streamline bureaucracy**: Reduce administrative burdens related to certification and policy support through digital tools, data sharing, group certification, and improved regulatory consistency.

Strengthening advisory systems

Current advisory services face deficiencies in training, expertise, and accessibility. To improve these:

- **Expand advisory services**: Develop holistic farmer support integrating climate resilience, financial management, supply chain development, digitalisation, and regulatory guidance.
- **Invest in advisor training**: Strengthen professional development through peer learning, mentorship programs, and hands-on study trips.
- **Leverage digital tools**: Develop multilingual knowledge-sharing platforms and integrate AI-powered advisory tools for broader accessibility.
- **Align advisory services with regional development**: Integrate organic advisory programs into broader agricultural innovation systems (AKIS), promoting cross-border collaboration and standardised accreditation for advisors.

Initiating and expanding advisory services

Regions lacking organic advisory support require targeted interventions:

- **Establish new advisory services**: Strengthen public and private advisory initiatives, ensuring sector-specific expertise is embedded in state-supported services.
- **Integrate advisory support into broader development plans**: Align organic advisory services with regional efforts in climate adaptation, water management, and sustainability.
- **Create organic knowledge hubs**: Establish regional centres to facilitate access to best practices and expert guidance.

Securing sustainable funding mechanisms

Long-term financial stability is essential for effective advisory services:

- **Ensure continuous funding:** Secure EU and national government commitments to guarantee consistent advisory service funding through the Common Agricultural Policy.
- **Foster public-private partnerships**: Encourage collaboration between organic farming associations and governmental advisory services to scale up outreach and expertise.
- **Increase accessibility and affordability**: Offer subsidised advisory services, expand peer-to-peer training, and simplify bureaucratic funding processes.
- **Embed organic advisory training in education**: Integrate organic farming education at university, vocational, and practical levels with sustained government support.
- **Invest in digital infrastructure**: Develop AI-powered platforms and digital decision-making tools to enhance advisory reach and effectiveness.
- **Encourage multi-stakeholder collaboration**: Fund initiatives that align advisory services with market needs, facilitating cooperation between farmers, advisors, researchers, and industry stakeholders.

By addressing these critical challenges, the EU and national governments can create a robust support system for organic farming, fostering long-term growth and sustainability in the sector.

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7 Annexes

Annex I. Farmer members of the CoP groups

Austria

	Farm 1	Farm 2	Farm 3
Farm size (ha)			
Total area farmed	86	50	49,5
Grassland (inc. rough grazing)	0	0	4,5
Fodder crops	0	0	
Arable crops	80	46	41
Other: Green fallow	6	4	4
Main farm type			
Cereals	x	x	x
Agriculturally related activities			
On farm processing e. g. cider/butchery		x	
On farm retailing e. g. farm shop		x	
Main current marketing outlets			
Direct to public %		30	
Wholesaler / retailer %	100	70	100
Legal type of business			
Sole trader	x	x	x

Hungary

Info	HU1	HU2	HU3	HU4	HU5	HU6	HU7	HU8	HU9
Total area farmed (ha)	**45**	**11**	**76,6**	**1,5**	**2**	**2**	**10**	**15**	**0,2**
Grassland (inc. rough grazing)	18	5,7	16						
Fodder crops			3						
Combinable crops	10								
Root crops			0,3		0,2				
Hort		3,8	0,3		0,5				
Woodland			32		0,1				
Vineyard	17	1,5	25	0,7	1,2	2	10	15	0,2
Farm type									
Horticulture, viticulture	x	x	x	x	x	x	x	x	x
Other related activities									
On farm processing	x		x		x	x	x	x	
On farm retailing	x		x		x	x	x	x	
On farm renewable energy	x		x						
Tourism activities	-		x	x				x	
Agricultural contracting	x								
Main sales outlets									
Sales direct to public %	80	100	80	100	100	100	80	100	
Wholesaler / retailer %	20		20				20		
Legal type of business									
Sole trader	x	x			x	x	x	x	x
Shared ownership			x (Ltd)	x					

Romania

	F1	F2	F3	F4	F5	F6	F7	F8
Organic status	non organic	organic	organic	non organic	part organic	part organic	part organic	non organic
Farm size (ha UAA - Agricultural Utilisable Area)								
Total area farmed (ha)	64	3,000	15,000	1,800	200	1,100	6,000	800
Grassland (inc. rough grazing)								X
Fodder crops	x		x				x	
Combinable crops	x	x	x	x	x	x	x	X
Root crops		x						
Woodland	x							
Other							Chick pea	
Main farm type - only choose one for each farm								
Cereals	x	x	x	x	x	x	x	X
Related activities (please tick all that apply)								
On farm processing			x					
Agricultural contracting	x	x	x	x	x	x	x	X
Main current marketing outlets								
Wholesaler / retailer	x	x	x	x	x	x	x	x
Legal type of business								
Sole trader	x			x	x	x		
Shared ownership							x	
Holding group		x	x				x	
Legal holding								x

Annex II. Workshop guidelines: Increasing the availability of advisory services and capacity building

Workshop instructions

Introduction of workshop + quick tour de table: very brief intro of participants – 15'

The facilitator welcomes the participants and briefly explains the aim of the workshop (within OrganicTargets4EU project), and the outline of the day. After that, each participant will introduce him/herself in one or two sentences (not more, than name + job/role).

AKIS country report 'advisory' - presentation - 10' presentation + 10' QandA

Based on the country-specific parts of the D1.1, the facilitator will present the key findings on the country's AKIS, focusing on the advisory system. The presentation should not be more than 10 min, ppt or any other format (e.g., free talk) can be used.

The facilitator indicates that the statements in the presentation have been made largely on the basis of information provided by those present, and again indicates that the primary purpose of the workshop is to discuss in more detail the claims made about the advisory system. Then asks who has a fundamental disagreement with what has been said, or any questions regarding the summary. The QandA session should not be more than 10 minutes.

Current situation – facilitated discussion of the current state of the organic advisory system – 45'

It is important to stress that it is not only about official/institutional advisory services, but also about all players, stakeholders or resources (e.g., digital resources) from whom/where farmers, processors, and retailers would get information or inspiration for their decisions regarding organic agriculture, aquaculture, processing or retail. The following questions should be addressed:

a. **Who are the actors of (organic) advisory? From whom can information, guidance and inspiration be obtained, when making decisions on farming methods, investments, markets, subsidies? – 5'**

The question is posed to all participants, whose comments are written down by the facilitator on a flipchart or large sheet of paper on the wall. The facilitator asks the participants, if there are any missing stakeholders.

b. **How can these actors be described in terms of 1. availability, 2. affordability, and 3. competence? – 10'**

Participants have 3 colours for the three attributes and 6-6 votes per each attribute to indicate a ranking by each attribute: the most important one gets 3, the 2nd two, the 3rd three votes (dots).

c. **What are the key thematic areas covered by the current actors in the field of advice - 5'**

The question is posed to all participants, whose comments are written down by the facilitator on a flipchart or large sheet of paper on the wall. The facilitator asks the participants, if there are any missing topics?

d. **Which are the most important areas/topics? – Ranking exercise 10'**

Participants have 5 votes (points) and are asked to rank the different topics according to their own experience and opinion.

e. **What are the gaps? To what extent do supply and demand for expert advice meet? What are the main identifiable strengths and gaps in the provision of advice? Are there differences in this respect by subject/region? – 15'**

Facilitated discussion among participants, notes taken based on comments and remarks of the audience.

Future – what would be a viable/realistic state and how to get there? – 60'

The following four questions are addressed using the *world café methodology*. The room is rearranged during coffee break with four tables, with 1-1 flipchart paper on each, with one of the below questions on the papers. For each of the tables, one mediator is selected from the group. Ensure that the facilitators are selected and briefed on their role before the World Café (i.e., at or before the coffee break)!

Participants are divided into four groups equal size and sit down at the tables. The mediator reads out the question, the participants give their answers and points of view, and after appr. 10 minutes they move to the next table. When the next group sits down, the mediator briefly summarises the key points from the previous session(s), which the group refines, discusses, or adds to.

a. **How would an optimal (ideal, yet viable) organic advisory look like in 2030?** How can such an advisory service be described? Are there good examples or best practices in other countries and/or in other sectors? *For mediators, if needed in for easing the conversation: Think about actors, capacity, availability, affordability, competence, reliability, and topics of advisory. What role can the constantly evolving IT solutions play in this? (E.g., knowledge-sharing platforms, online courses, AI-based services).*

b. **What components, conditions and funding mechanisms are needed for an optimally functioning organic advisory?** What would be needed to transform the current advisory into a better, viable model by 2030?

c. **What are the main obstacles to develop a well-functioning organic advisory by 2030?** What is hindering the progress? Can we identify the typical barriers and gaps? *For mediators, if needed for easing the conversation: Think about the lack of education/training, funding, communication, political will, legal background, any other?*

d. **What are the next steps forward?** What needs to be done as an immediate and concrete action? By whom? What is needed to take a particular step (e.g., which other step is a precondition)? In what time sequence (immediate/medium term/temporal)?

Conclusions – 30'

The four mediators of the tables give a 5-5 min summary on the key findings to the whole group. The facilitator asks for any comments on the findings. As a closure, the facilitator asks for any remarks on either the workshop or any of the topics/sub-topics. After noting these, he/she will thank participants for their active participation, outline the next steps and assure participants that they will receive feedback on the results.

Participants can remain in their four groups for this last part of session I, the groups will work again together in session II.

Reporting

As a report, please, provide one consolidated table (+ attachment) filled as indicated below. If you have any questions, please, contact!

Date of the workshop	
List of Participants (name/organisation)	
Location and agenda of meeting (as sent out beforehand)	
Summary of AKIS presentation	Ppt attached or summary of talk + summary of QandA session
'Current situation' summary	Key players listed and ranked; key advisory topics listed and ranked; gaps detailed – summary of discussion.
'Future' summary	Summary of each table's notes and discussions, regarding the 4 questions. Please, create full sentences, instead of just listing topics. Focus specifically on - ways of transformation of existing advisory services - new conversion/organic advisory services - possible funding mechanisms or public-private-partnerships - necessary relationships for a viable professional network
List of Identified Action Points	Based on the above summaries and discussions, a comprehensive list of specific action points, indicating their importance/priority, timeframe and who has the scope/responsibility for the action point.

The list of action points addressing the objectives listed above (point 3.1) will be agreed by the participants, the achievement of which will be assessed in Task 7.2. The task will result in recommendations for strengthening organic advisory services and building capacity and be integrated in D5.2.

Annex III. Denmark survey results: Increasing the availability of advisory services and capacity building

The survey had three main purposes:

1. To have the advisor's concept about the key findings for Denmark Agricultural Knowledge and Innovation Systems, that has been reported in WP1 of OrganicTargets4EU.

2. To rate according to advisors the advisory services according to different aspects and to express what they think is missing, if any.

3. To assess the potential increase of organic production and agricultural land in Denmark.

Through the survey we obtained 40 answers, from which 95% were advisors. From those advisors, approximately 70% of their work is in relation to organic farming, and 50% of them work in research and innovation.

Section 1: Background based on key findings for Denmark Agricultural Knowledge and Innovation Systems report

In relation to the question "Do you agree with the key findings of the AKIS report?" 30% of respondents agree with them, 8% disagree, 10% partly agree and disagree 10% and 53% did not answer the question. Some of the

Although the key findings regarding the advisory services in Denmark appears very segmented, advisors have a general feeling that is not like that. It is not entirely true that all conventional counselling agencies offer counselling in organic farming. However, all large advisory agencies provide organic advice, and there is not a big percentage of people who do not have access to adequate advice, whether organic or conventional, that want to know more about organic. Some advisory services do provide advice to a wide range whether they are producers who just need an organic declaration to large professional farmers with 1500 ha.

Some advisors do not agree with the defined main bottleneck for the development of organic farming. If small farms and part-time farms can't afford to use professional counselling, they do not see that as a problem. That is a result of the policy objectives in Denmark since small organic farmers are not the ones driving the market because they are not producing the crops for the market, but they are more focused on nature conservation and growing grass. Many advisors do not see as a problem that farmers themselves pay for the counselling. It only helps to ensure that the advisors are working towards what is demanded by the full-time farms that use the advice. On the contrary, some other advisors think that "We are building an administratively heavy system in the Board of Agriculture that removes the diversity of small and medium-sised farms." Advisors mentioned as well that perhaps the biggest bottleneck is that they spend a lot of time on consultations, administration and EU applications, and too little time in the field with the farmer. "

The second part of the first section continued with the question: "What do you think is missing, that is a relevant or characteristic to the advisory services in Denmark?

Surprisingly 50% of the respondents did not answer the question, and only 2% said they are not missing anything to provide a proper advisory service. Many of the advisors that answered, agreed that the main characteristic of the advisory service in Denmark is that is impartial, and they see that as an strength and something they want to preserve in the future. It would be obvious for companies that sell agricultural inputs to offer advisory services, but they see it as something that would compromise the impartiality of the advice. There is a general need of an approach to keep providing advice to small and part-time farmers since their turnover and profit is much lower which makes difficult for them to pay for the advisory services. Advisors find important to keep small farmers because most of the times they have alternative approaches to solve problems, and that is important to preserve.

Advisors also highlighted that there should be more focus on the economics **and marketing advice** of organic farming and how to improve it. **As referred through the survey, t**he relationship between advisor and costumer is often long term**, advisors would like to have more time available for being in** the field with the farmer **and be able to give a m**ore holistic counselling**. They have referred that the services have entered a very bureaucratic stage that consumes a lot of time. A last need mentioned is regarding the need for better IT services for both applications and field plans.**

Section 2: Functioning of the advisory services for the organic sector

According to the respondents, it is of general perspective that the advisory services for the organic sectors is well stablished in terms of the network, the updated knowledge and training, the advising capacity for conversion checks and increasing organic agricultural land, the coverage of the agricultural sectors and the accessibility for farmers (Figure 7.1).

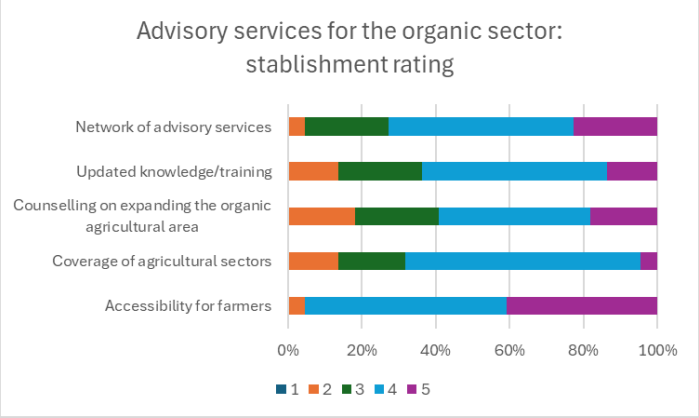

Figure 7.1: Rating of advisory services for the organic sector in Denmark.

Listed below are what the advisors think they need to improve the advisory services in the organic sector in Denmark.

- Higher integration of small-scale farmers in terms of knowledge provision and marketing

- Education and training: More university-level training for advisors, especially for the new generations of advisors and farmers that want to be familiarised with organic farming; training focalised in niche productions such as poultry, vegetables, fruit and berries, nuts.
- Give space to new generation of advisors to develop professionally and to bring a renovation to advisory services.
- As Regenerative Agriculture is emerging organic farming will have to support setting the agenda "regeneratively."
- More and better advisory focused on marketing
- Greater cooperation between organic advisory organisations to share experience and knowledge. It would be also relevant to seek professional knowledge and inspiration abroad. The sector of horticulture would benefit from building an "International horticultural advice network" to have more knowledge in relation to advisory for small new nurseries.
- As said in the previous section, advisors would like to have less bureaucracy with applications and more funding to be able to spend more time in the field with the farmer and for practical testing of new initiatives.
- Technically advisors expressed a need for new tools that could help farmers for instance with better weed control or could provide an overview of crops (including new ones) that have potential in the market and their quantities for human consumption (plant-based diet).

Section 3: Towards increasing organic production and agricultural land

What technical or methodological skills do organic advisors need to support the increase of organic conversion and organic agricultural land?

Advisors should be a highly specialised professional advice with great realism. They need to be able to see the bigger picture and look at production in a more holistic way and transmit this to the farmer. They require a broad knowledge of rules and what is possible within that framework, plus strong knowledge of economics. In this regard, it is important that advisors are frequently updated in relation to the organic market to convince farmers to stay as organic or convert to organic. Farmers require a level of certainty of sales otherwise they choose to stay in conventional production, if organic is associated with more physical labor and greater financial risk. Since economic calculations are the basis when large farms are converted, advisors could benefit greatly if there would be a tool to give a qualified estimate of this.

Advisors do not work alone, therefore it is important to have active efforts for co-operation between conventional and organic advisors regarding conversion checks, as well as a very close relationship with farmers, especially those with intentions to convert.

Again, advisors have expressed that rules should not represent a burden for the farmer that wishes to convert to organic.

How are the organic advisory services engaging future advisors?

Definitely the key here is higher investments in education, training and building up professional experience from the beginning. This must be agreed by the educational institutions and advisory organisations because advisors need to build up high levels of knowledge and confidence to reflect that to farmers. Therefore, practical experiences like internships are highly recommended.

Furthermore, education and training must be matched with fair salary and employment conditions. Currently, there is a drop in the number of qualified advisors, therefore it is important to make higher efforts to make the advisory services sector much more attractive for new commers.

What are the target producers regarding different production sectors and farm sizes, to support the increase on organic land until 2030?

In general, advisors suggest that the increase on organic farmland depends on the profitability of the business, and this depends on demand for the products in Denmark and abroad. To reach the organic area that is targeted, there is a need of large-scale famers, and they will only convert to organic if they have the opportunity to make sufficient profit. Small scale farmers do not play a significant role in this process, though they convert because they believe in the organic principles. Some advisors see that the short-term increase of the organic land would be more in relation to nature conservation than to food production.

There is as well the discussion of increasing yields and barn production in organic farming to premiums can support the continuation and expansion of organic production, however the majority of consumers do not agree with that but on the other hand, there is no willingness to pay for more expensive organic products.

Is the organic subsidy system (basic, eco services, low fertiliser premium) helpful in the organic sector growth aspiration

Most of the advisors (70%) agree that the subsidy systems support the organic sector growth aspiration. However, subsidies might not have the same impact on every production sector. That is the case in horticultural sector. Nevertheless, subsidies are relevant for investment on education for new farmers and advisors.

What approaches do you see to target small organic farmers? (in relation to subsidised targeted consultancy; Group/ seminar approaches, etc)

The main issue with is the small organic farmers is the low profit they make and consequently they are less prone to pay for advisory services. Advisors suggest that a basic subsidy could help small businesses to pay for advisory services that support farmers mainly for the bureaucratic processes, that are a burden for them. Networking or info meetings would be another alternative so they can get relevant information and advice for less money.

How well informed are the advisors regarding to how organic agriculture contributes to lower greenhouse gas emissions?

As shown in figure 2 a big group of the advisors, feel that they are slightly informed in terms of how the organic agriculture contributes to lower the greenhouse gas emissions.

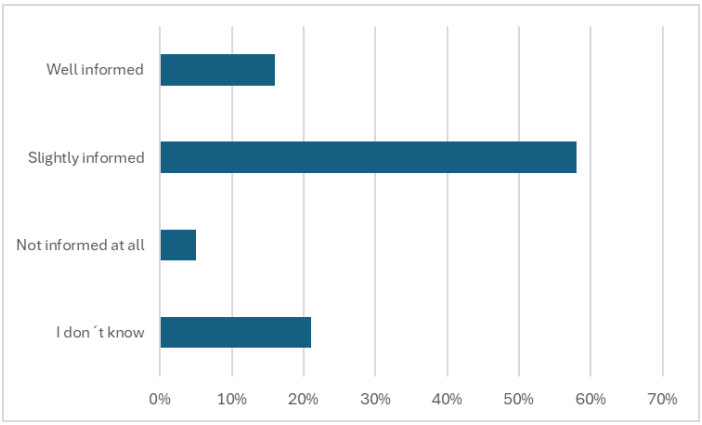

Figure 7.2: Information perception from advisors regarding organic agriculture and its contribution to greenhouse gas emissions.

How relevant would it be for the advisors to build up a network with organic advisors from other countries (e.g., Sweden, Germany, Ireland, UK, The Netherlands) to exchange knowledge on specific topics and perform cross country visits?

The majority of the advisors think that it is important to build up a network with other advisors in neighbour countries for knowledge exchange and cross visits (Figure 7.3).

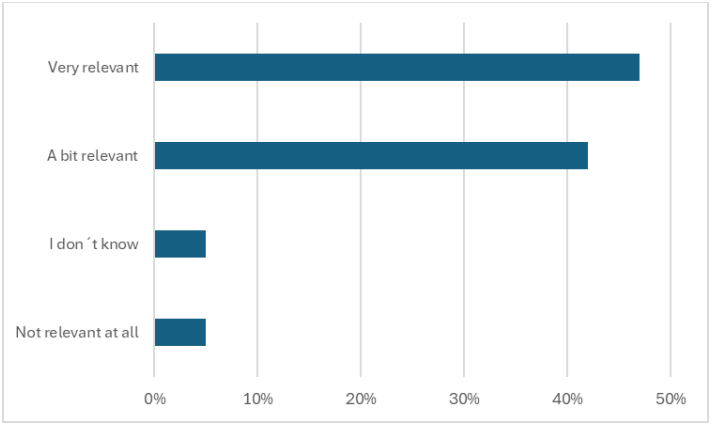

Figure 7.3: Advisors' relevance level of networking with international advisors.