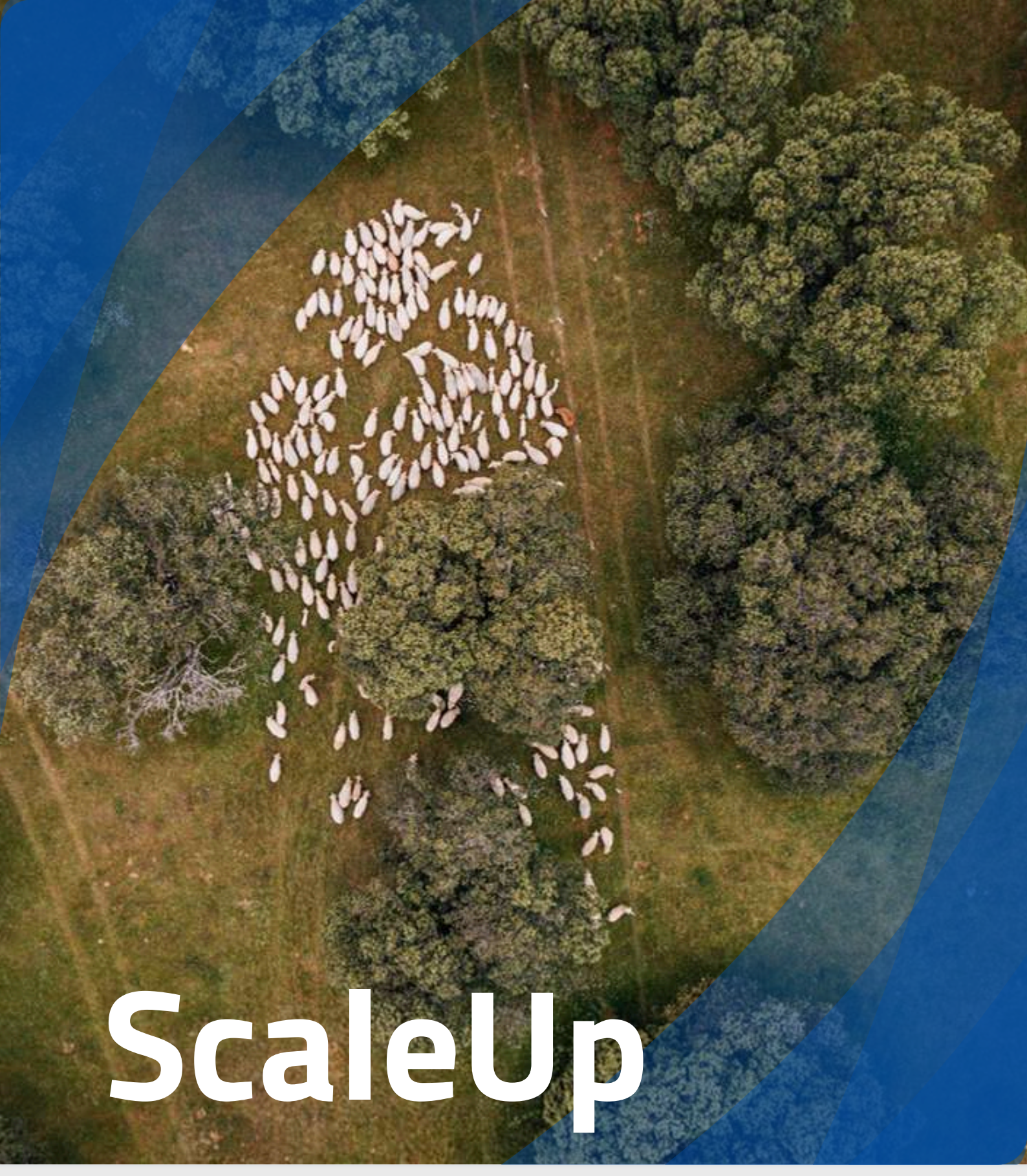

ScaleUp

eit Food

Co-funded by the European Union

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EXECUTIVE SUMMARY
ACHIEVEMENTS AND IMPACT

PROGRAMME REACH AND PARTICIPATION

Between 2020 and 2025, the ScaleUp programme delivered **114 training courses in 14 countries**, received over **4,600 applications**, and engaged more than **2,900 farmers and agronomists**, alongside over **100 regenerative agriculture experts**. Applications were driven predominantly by farm owners and primary decision-makers (78%), while farm managers, contractors and operational roles were less represented (together accounting for around 20%). This pattern highlights a potential leverage point for future programme phases: strengthening the engagement of these figures is critical, as they are responsible for day-to-day implementation in many farming operations and therefore strongly influence whether regenerative practices are adopted or impeded.

The programme attracted a high share of applications from organic and in-conversion farms (approximately 46%), with a further 17% identifying as regenerative or agroecological, while still engaging a substantial proportion of conventional producers (around 30%). Marked regional differences shape this picture. In Southern Europe, participation is dominated by farms already operating within organic or regenerative paradigms (around 53% organic or in-conversion and 21% regenerative/agroecological), whereas in North-Eastern Europe the applicant base is predominantly conventional (around 74% of applicants), indicating that the programme reaches farmers positioned at different points along sustainability and transition trajectories.

Motivations for participation are primarily linked to innovation and professional development (around 30% of applicants) and soil health and environmental concerns (together accounting for roughly 35%), while values-driven motivations represent a further 15% and explicitly economic or management-oriented motivations remain below 10% at application stage, suggesting potential to broaden engagement by more explicitly emphasising profitability, input reduction and practical resilience benefits for farms not initially motivated by sustainability considerations.

FROM TRAINING TO ADVISORY SUPPORT

Building on training activities, targeted **advisory support was provided to 215 farms across 9 countries**, representing more than 35,000 hectares of agricultural land. Participating farms display a wide range of structural profiles, **spanning from 1 to 2,300 hectares**, and advisory delivery involved over 40 regenerative agriculture experts. Training functions as an entry point, building shared technical understanding and identifying farms with the interest and readiness to engage in deeper transition processes, while advisory support translates this foundation into farm-specific decision-making, supporting the prioritisation, adaptation and sequencing of practices over time.

ABOUT THIS REPORT

This report presents an assessment of the EIT Food ScaleUp Regenerative Agriculture Programme, combining evidence on programme delivery with field- and farm-level observations of regenerative transition themes, outcomes, barriers and country-specific pathways. It documents the reach of training and advisory activities implemented across Europe over the 2020-2025 period, and examines how regenerative practices were supported, prioritised and translated into on-farm change between 2023 and 2025, resulting in evidence-based insights relevant to the fostering of regenerative agriculture across Europe.

Photo credits: Caspar Daniël Diederik (Storytravelers) for EIT Food with images from South European farms (front cover, p.6, p.12, p.22); all other images by ScaleUp Programme advisors.

EXECUTIVE SUMMARY
ACHIEVEMENTS AND IMPACT

Analysis draws on a dataset of **900 advisory reports collected between 2023 and 2025**, providing the empirical basis for examining patterns of advisory focus and observed change.

Clear **structural differences emerge between regions**. In North-Eastern Europe, advisory engagement is primarily concentrated on large-scale annual cropping systems and focuses on field-level implementation, with soil cover and fertility-related themes forming a stable core of advisory attention. In Southern Europe, advisory work more often addresses perennial, pastoral and mixed systems embedded in complex landscapes, is frequently framed at whole-farm level, and distributes attention more evenly across transition themes including, among others, a more prominent role for livestock management, water and hydrology, and agroforestry.

Beyond these broad regional contrasts, the analysis reveals a **diversity of transition profiles** within the same countries and regions, reflected in different distributions of advisory attention across transition themes and corresponding farm priorities and constraints. This underscores the highly contextual nature of regenerative transitions and suggests that support mechanisms for regenerative agriculture need to be sufficiently flexible to respond to diverse farm- and context-specific pathways, rather than relying on uniform or sequential models of change.

OUTCOMES AND TRANSITION DYNAMICS

Observed outcomes during the programme period document **incremental and consistent indications of emerging change** across key dimensions of the regenerative transition. Most documented progress corresponds to stepwise advancement within outcome dimensions rather than abrupt transformation, reflecting the multi-year time horizons involved. Progress emerges most consistently in **agronomic practices (observed in 98% of participating farms)**, confirming these as the primary entry point through which regenerative transitions begin to materialise under advisory support.

Changes related to soil management - such as reduced tillage (71%), fertility management (54%) and soil cover maximisation (53%) - are documented across the large majority of farms, reinforcing the central role of soil-related interventions as foundational levers of transition.

Economic outcomes are documented in 61% of farms, most commonly through reductions in variable input costs (42%), labour costs (21%) and energy costs (21%). **Environmental outcomes** are observed in around 50% of farms, while **socio-political** (around 20%) and **overall farm resilience-related outcomes** (around 13%) are less frequently documented, reflecting both the longer timeframes typically required for change in these dimensions to become clearly observable, as well as the potential need for additional enabling conditions to support their emergence.

Regional outcome patterns further underline differentiated transition dynamics. In North-Eastern Europe, outcomes are more tightly concentrated around agronomic practices and efficiency-oriented economic changes, consistent with the North-Eastern European field-level advisory focus and with outcomes derived ex post from farm performance evaluation reports, while in Southern Europe outcomes are distributed across a broader range of agronomic, environmental and farm-system dimensions, consistent with the Southern European whole-farm framing of advisory engagement and with outcomes scored directly by advisors.

In a limited number of outcome profiles, improvements across agronomic and environmental dimensions were observed to coexist with **pressures and trade-offs**, particularly in selected economic indicators. These trade-offs should not be interpreted as failures, but as intrinsic features of transition processes in which multiple objectives evolve at different speeds. Their limited documentation reflects the analytical effort required to make such dynamics visible and emphasises the need to further develop and **refine data collection approaches to better capture complexity**, synergies, trade-offs and the evolution of performance over time.

EXECUTIVE SUMMARY
ACHIEVEMENTS AND IMPACT

This perspective highlights the **potential value of identifying** not only transition profiles, but also **recurring trade-off profiles** linked to specific cropping systems and contexts, to inform future programme design by anticipating tensions and setting realistic expectations regarding the pace and non-linear nature of change.

BARRIERS TO CHANGE

Barrier analysis shows that regenerative transitions are shaped by **multi-level constraints** that vary by region and become visible depending on how barriers are identified and the scale at which advisory engagement operates.

In Southern Europe, where barriers are discussed explicitly within whole-farm advisory processes, **challenges are not confined to the agronomic dimension**, which includes technical knowledge gaps (41%) and limited access to machinery adapted to regenerative practices (26%), **but also extend to systemic pressures** including climatic constraints (reported by 46% of farms), policy and regulatory barriers (38%), labour availability (28%), market and price conditions (23%), and investment costs (21%). In North-Eastern Europe, where barriers are derived ex post from field-focused advisory reports, constraints cluster more strongly around practice implementation, including soil and fertility limitations (68%), crop or rotation design issues (45%), water availability (42%) and pest, weed or disease pressures (39%). Together, these constraints influence which practices can be realistically recommended, tested, or scaled, pointing to the need to acknowledge that **conditions shaping regenerative transitions often extend beyond the farm gate**, therefore requiring coordinated action that combines technical support with organisational, market and policy-level enabling conditions.

Together, these constraints influence which practices can be realistically recommended, tested, or scaled, pointing to the need to acknowledge that conditions shaping regenerative transitions often extend beyond the farm gate, therefore requiring coordinated action that combines technical support with organisational, market and policy-level enabling conditions.

CASE STUDIES AND FUTURE PERSPECTIVES

Overall, the evidence presented in this report illustrates how **combining introductory training with targeted advisory** can support the progressive translation of shared technical understanding into farm-specific practice change. Building on this, the analysis shows that regenerative transitions do not follow a uniform sequence, but unfold differently across production systems, regional contexts and farm objectives, highlighting the need for **adaptable support programmes and realistic expectations** regarding the pace and complexity of change.

Country-level success stories complement the aggregated analysis by providing illustrative **examples of how transition pathways take shape over time in real farming contexts**. By showing how advisory support, practice evolution and on-farm progress manifest under concrete ecological, agronomic and organisational constraints, they help make visible the diversity of forms that regenerative transitions can assume in practice. Selected pilot farms serve as early bioregional blueprints and testing grounds for regenerative transitions, offering concrete evidence of what has proven effective, where limitations remain, and where complexity becomes most apparent.

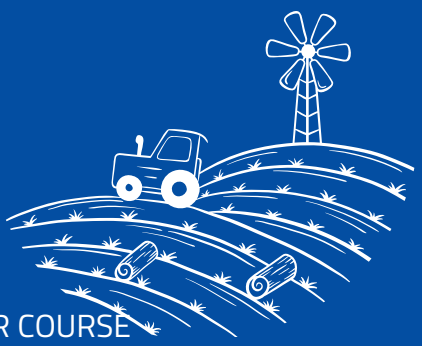
From this perspective, some of the programme's most advanced achievements lay precisely in **supporting the development of territorially anchored reference points and local farmer-advisor networks**, which embed learning in locally grounded on-farm innovation and knowledge generation, providing practical orientation for transition processes. Future programmes can build on this fertile substrate to inform and shape farm-level, landscape-level, value-chain, and broader market, regulatory and policy initiatives, thereby supporting the scaling of regenerative agriculture across Europe.

SCALE UP PROGRAMME AT A GLANCE
A FARMER'S JOURNEY

1. COURSE ORGANISER / TRAINER SELECTION

We select and coordinate a **curated network of course organisers**, who are recruited through an open call, based on a proven record of delivering high-quality agricultural trainings. Screening is synthesized around capability to deliver reliably at scale, to mobilise and combine top-tier regenerative agriculture experts across disciplines, and to **grow durable networks of farmers and trainers/agronomists**. Evidence of farmer reach and course outcomes is required, as well as the capacity to convene leading practitioners (advisors, agronomists, soil/water, livestock, tree-crop and other experts), reflecting EIT Food's aim to build a network of both farmers and advisors.

TRAINING PROGRAMME



2. FARMER COURSE PARTICIPANT SELECTION

During the year, open calls to gather farmer applications are promoted via both grassroots networks and institutional channels. **Participants are screened with a concise profile** (farm type, land/crops, market channels, etc.) to ensure alignment with course content and readiness to apply practices. **Recruitment is designed to build a heterogeneous cohort**, with the aim to maximise peer learning and diffusion: locally rooted and nationally connected farmers; varied farm scales and production systems; different stages of the regenerative transition (from not yet engaged to early adopters, etc.); and balanced representation by geography, farm type, gender, and motivation.

3. FARMER COURSE DELIVERY

2-day intensive **trainings are delivered free of charge** to a maximum of 30 farmers, so as to maintain high quality standards, with a small number reserved for agronomists and researchers to add diversity and strengthen the network. The **content is focused on a specific cropping system** (grains, livestock, olives, grapes, almonds, vegetables, etc.) and **on cross-cutting topics** (such as soil, hydrology, farm design, agrarian policy, and so on) to support transition to regenerative agriculture. A local network is convened, and field-based demonstrations are combined with classroom modules, with **the course cohort serving as a talent pool to identify high-potential farmers** for the advisory programme.

4. PILOT FARM SELECTION

ADVISORY PROGRAMME

From courses, **pilot farms are selected as long-term hubs for testing and diffusion** (6 farms per country per year in the North-East, 3 per course in the South) and receive three years of free assistance to advance their regenerative transition and establish local blueprints. Selection is based on: (i) size and scalability; (ii) commitment to the regenerative transition; (iii) influence in the (on-farm and digital) community; and (iv) likelihood of future success with the regenerative journey. **Diversity of farm types and contexts is sought**, clear pathways to replication are emphasized, and regional and system balance is maintained to **establish reference points for different agroclimatic zones and cropping systems**.

5. ADVISORY PROGRAMME DELIVERY

Each pilot is **supported for 3 years with 2-4 on-farm advisory visits per year** plus remote support, financed by EIT Food. A Regeneration Plan frames each farm's holistic context at the beginning of the advisory. The plan records: 1) the current situation and constraints; 2) the desired future for farmer, business, ecosystem, and community; 3) three-year objectives; and 4) year-by-year actions to reach them, so that **advisory remains coherent over time and aligned with the farmer's vision** and local realities.

Advisory **covers a plurality of regenerative agriculture topics** and is mainly delivered through individual advisory, with **in-depth support either at field level** (more common in the North-East) **or whole-farm level** (more common in the South). In Southern Europe, additional formats have been tested, including participatory advisory, where peer farmers attend sessions centred on the host farm's context, and farmer work groups, that enable on-farm peer-to-peer learning and exchange.

6. ONGOING REGEN AG COMMUNITY ENGAGEMENT

Beyond advisory, EIT Food fosters regenerative agriculture community engagement through complementary initiatives that connect learning, inspiration, and collaboration. The **Regenerative Agriculture Manuals** provide accessible, crop-specific guidance to support farmers in adopting regenerative practices; the **Success Stories of Pioneering Farmers** share real experiences to inspire peers and illustrate tangible transition outcomes; and, in the Southern regions, the **CERES Awards** recognised virtuous farmers participating in the programme for their outstanding contributions to much-needed field-level innovation, while the annual **Regen Ag Workshop** organised in different countries convened diverse food-system actors to exchange knowledge and strengthen awareness and cross-sectorial collaboration networks.

SCALE UP PROGRAMME AT A GLANCE
HOW EVERYTHING BEGAN

Since its first pilot in 2020, the ScaleUp framework has evolved from a small network of regenerative practitioners into a multi-country initiative encompassing training and advisory activities across Southern, North-Eastern, and Western Europe. In several countries - Spain, Italy, Portugal, Poland, Czechia, Slovakia, Hungary, Bulgaria, and Serbia - both the training and advisory programmes were implemented, while in others such as Greece, Türkiye, France, Germany, and Ireland, activities focused primarily on training.

SCALE UP PROGRAMME AT A GLANCE
HOW EVERYTHING BEGAN

Year when **training** activities first began in each country 2020 2021 2022 2023 2024 2025

SCALE UP PROGRAMME AT A GLANCE
HOW EVERYTHING BEGAN

Year when **advisory** activities first began in each country 2021 2022 2023 2024

SCALE UP TRAINING PROGRAMME
TRAINING IN NUMBERS (2020-2025)

>110

>4600

Applications received

>2900

Trained farmers and agronomists

>100

Regen ag experts engaged as trainers

SCALE UP TRAINING PROGRAMME TRAINING IN NUMBERS (2020-2025)

Between 2020 and 2025, the ScaleUp programme delivered training activities in 14 European countries, grouped here into three macro-regions - South, North-East, and West - according to their implementation clusters.

Together, these figures illustrate the scale and regional diversity of engagement achieved through the ScaleUp network, reflecting the programme's broad reach across diverse production systems, climates, and organisational contexts. Some countries show lower numbers of courses as their implementation began in later phases (see the European map in the previous section).

WEST

	France	Germany	Ireland
Trainings	13	4	2
Applications	162	104	92
Participants	150	91	77

SOUTH

	Greece	Italy	Portugal	Spain	Türkiye
Trainings	14	14	9	30	4
Applications	307	1389	295	944	149
Participants	257	522	185	680	113

NORTH-EAST

	Bulgaria	Czechia	Hungary	Poland	Serbia	Slovakia
Trainings	4	4	4	6	2	4
Applications	264	252	236	221	100	157
Participants	173	158	149	157	74	135

SCALE UP TRAINING PROGRAMME
INSIGHTS FROM TRAINING (2020-2025)

INSIGHTS FROM THE TRAINING NETWORK

Since its launch, the programme has grown into a dynamic network of trainers, farmers, and pilot farms driving the regenerative transition across Europe.

Between 2020 and 2025, 114 courses were delivered, spanning contexts from Mediterranean orchards and vineyards to continental grain systems and large-scale livestock operations (see the map below).

Examining course applications and the subjects taught by trainers across countries provides insight into the evolving interest in regenerative agriculture across Europe.

DIVERSITY OF FARM PROFILES

The ScaleUp programme attracts applicants from across Europe who are motivated to adopt or deepen regenerative agriculture practices. The applicant base is highly diverse in terms of farm size, production systems, and experience, reflecting the broad applicability of regenerative approaches across the agricultural landscape.

Farm sizes range from intensive horticultural operations of less than one hectare to extensive livestock and broadacre cropping farms covering several hundred hectares. **Production types** include cereals such as wheat, oats, barley, maize, and rice; oilseeds like rapeseed, soybean, and sunflower; and root and cole crops such as potato, onion, sugar beet, carrot, and cauliflower. Many participants also work in perennial systems - fruit orchards, olives, almonds, and vineyards - and in livestock and dairy farming, often integrated with pasture or permanent meadows. **Experience levels** vary widely, from those entering agriculture within the last few years to multi-generational farmers with lifelong involvement in the sector.

This variety indicates that the interest in regenerative agriculture is not limited to a specific farm scale or production system. Instead, it is being considered a relevant framework for both small, diversified farms and large commercial enterprises seeking to enhance soil health, resource efficiency, and climate resilience.

Geographic distribution of ScaleUp training activities (2020-2025)

SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)

DIVERSITY OF PROFESSIONAL COMPOSITION

The composition of applicants to regenerative agriculture courses gives insights into how this approach is spreading across the European farming sector.

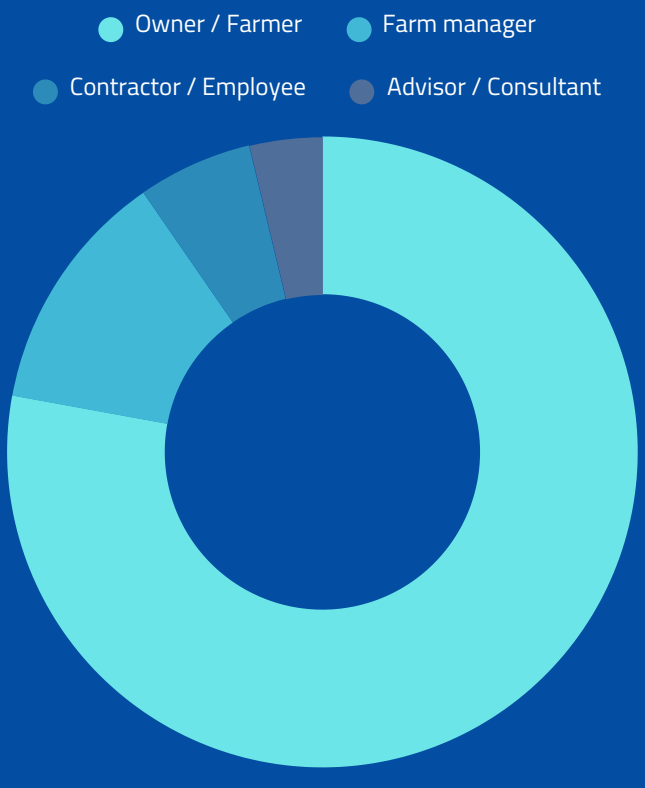
A clear majority - 78% - are **farm owners**, including both landowners and tenants. This indicates that the adoption of regenerative agriculture is primarily practitioner-led, driven by those who make direct management and investment decisions on their land.

Around 13% are **farm managers**, showing that the approach is also gaining ground in more structured operations where management and implementation are separated. Their presence suggests that regenerative practices are being considered as part of operational and strategic farm planning.

Contractors and employees represent 6% of applicants. Their presence points to the diffusion of regenerative methods along the agricultural value chain, as service providers and field workers become more involved in implementing these practices.

Advisors and consultants account for 4% of applicants. Although not the main target audience of the courses, their participation is strategically important because they serve as multipliers, helping to embed regenerative principles into advisory systems and farm support networks.

Overall, the data shows that regenerative agriculture engagement is broad-based, with strong participation from primary decision-makers. Strengthening the engagement of farm managers and contractors / employees will be key, as these groups play a critical role in day-to-day implementation and can either accelerate or obstruct mainstreaming of regenerative practices through operational decisions and peer influence.



SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)

DIVERSITY OF FARMING MODELS

The distribution of farming models among applicants further illustrates how regenerative agriculture is engaging farmers across different contexts and levels of transition.

At an aggregated European level, nearly half of applicants operate under **organic, biodynamic, or in-conversion** systems, showing that regenerative agriculture strongly resonates with those already committed to soil health, ecological balance, and input reduction.

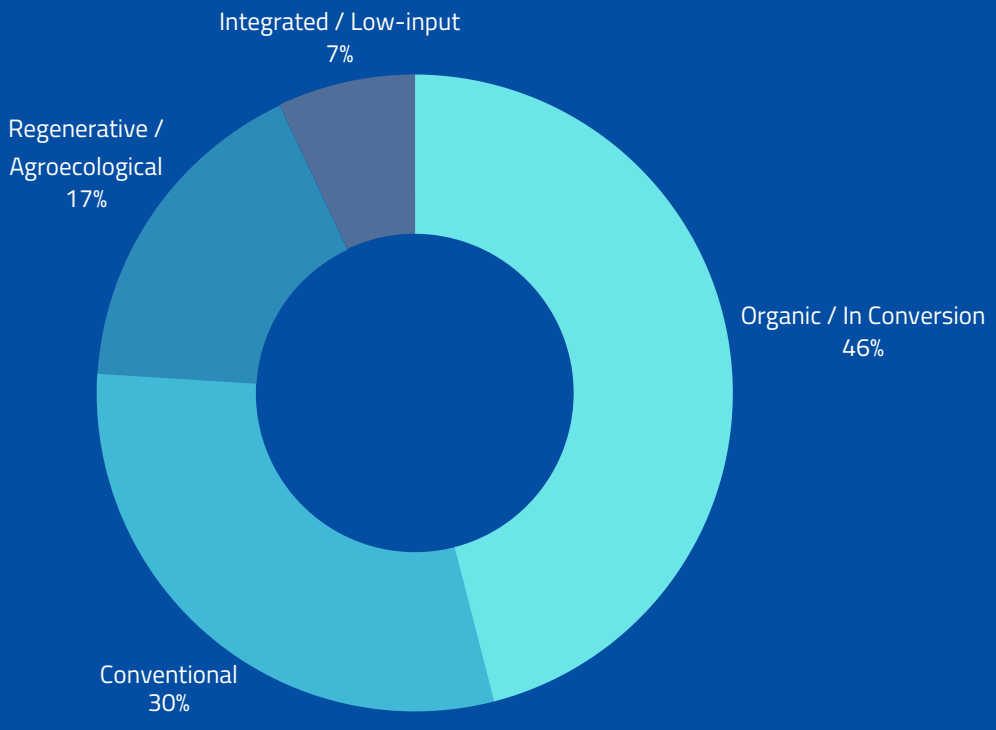
Conventional farmers represent 30% of applicants, suggesting that a considerable portion of conventional farmers are open to learning about regenerative and ecological practices, reflecting readiness for change and curiosity about alternative approaches to profitability and resilience.

Regenerative or agroecological practitioners account for 17%, representing applicants who are already applying regenerative frameworks.

Their presence indicates that the programme also serves as a platform for refinement, peer learning, and scaling of established practices rather than only early-stage awareness.

Representing 7% of applicants, **integrated and low-input** systems are less numerous than organic or conventional farms but form a crucial bridge between them. Their emphasis on input efficiency and soil stewardship suggests strong potential for transition to regenerative models.

Overall, compared with the broader European farming population, the share of organic and regenerative applicants is significantly higher, indicating a self-selecting group already more committed to sustainability and soil health principles. Nevertheless, the distribution also demonstrates engagement from conventional and integrated farms, underscoring that interest in the regenerative transition is expanding beyond niche or alternative models and is increasingly recognised across all production systems.



SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)

DIVERSITY OF MOTIVATIONS

The motivations expressed by applicants across Europe highlight the diversity of pathways through which interest in regenerative agriculture emerges. While technical and professional drivers dominate, environmental, ethical, and personal values also play a substantial role. The distribution of responses reveals that regenerative agriculture is attracting both pragmatic and visionary actors - those seeking practical farm improvements and those inspired by broader ecological or societal goals - illustrating its appeal across both performance-driven and values-driven segments of the sector.

1. Strong learning and innovation drive (30%)
With 30% of participants motivated by innovation and professional development, the programme is clearly attracting proactive and forward-looking farmers. These are people eager to experiment, network, and adapt — a highly engaged audience likely to apply what they learn. This validates the training's positioning as both technical and strategic.

2. Soil and environment as core entry points (36%)
A combined 36% of applicants cite soil health (18%) and environmental or climate resilience (18%) as their main motivations, showing that ecological degradation and climate stress are major triggers for interest. Participants are looking for solutions to visible on-farm problems, rather than abstract sustainability goals. This suggests the programme resonates best when it connects regeneration to practical farm-level outcomes (soil fertility, resilience, input reduction).

3. Values-driven engagement remains substantial (15%)
The philosophical/ethical group shows that many participants are motivated by stewardship and values of respect for nature. These participants express an ethical commitment to caring for the land, working in harmony with natural systems, and leaving a positive legacy for future generations. Their perspective reflects a growing cultural shift in farming identity - from extractive management toward stewardship and respect for ecological limits.

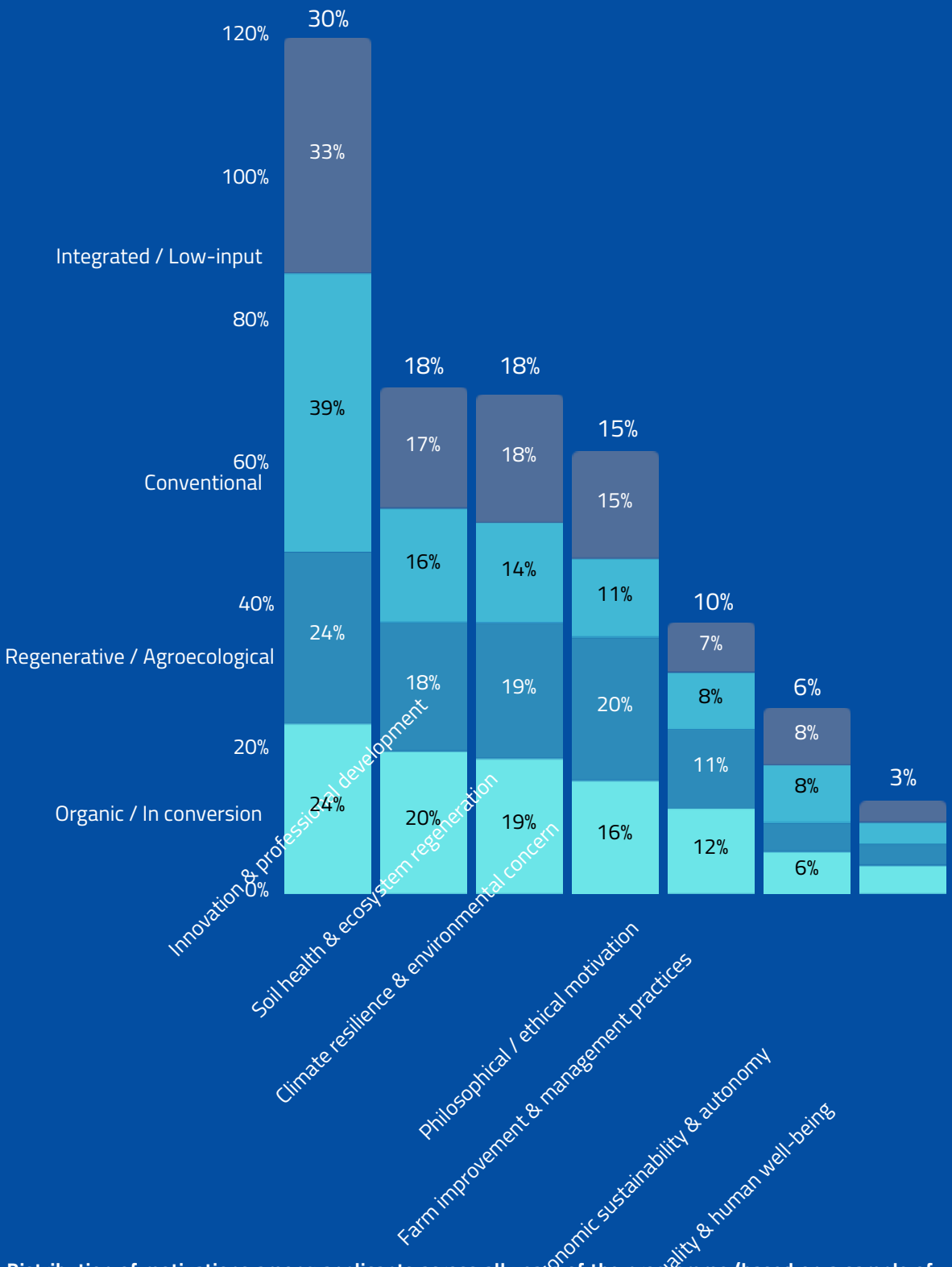
4. Practical problem-solving as a key secondary driver (10%)
Farm improvement and management motivations reflect a pragmatic group who want to enhance efficiency and yields, not necessarily overhaul their system. Regenerative agriculture is seen as a toolbox for better efficiency, rather than a complete redefinition of their farm approach. This shows that regenerative agriculture can also reach mainstream farmers if training content emphasizes practicality, risk reduction, and measurable benefits.

5. Economic motivations underrepresented but strategic (6%)
Economic sustainability appears less frequently as a declared motivation, but it underpins many other categories, implicitly (input reduction, resilience). This signals an opportunity: clearer framing of regenerative practices in terms of profitability, input savings, and long-term business stability could broaden appeal among more conventional producers.

6. Health and food quality as emerging dimensions (3%)
A smaller group connects regenerative agriculture directly with food quality and human health. While still marginal, this motivation signals a growing interest in linking production practices with nutrition and community well-being, an opportunity to position regenerative agriculture within wider food system transformation narratives.

The data suggests that ScaleUp attracted an engaged learner base. The dominance of innovation, soil and environmental motivations indicates a self-selecting group of active learners, already committed, curious, and ready to experiment. This suggests a high likelihood of knowledge application and peer dissemination. At the same time, the relatively smaller share of economically or pragmatically motivated farmers shows where engagement can expand: targeting those who are not yet "converted" but who could be reached by emphasizing profitability, input reduction, and resilience.

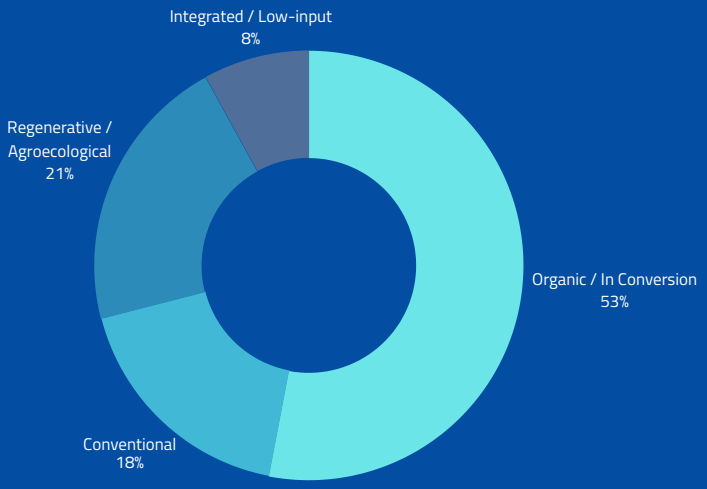
SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)



Distribution of motivations among applicants across all years of the programme (based on a sample of ~4,000 analysed applications). The chart shows the relative distribution of stated motivations, aggregated across cohorts. Bars are segmented by farming model, with colours representing Organic / In conversion, Regenerative / Agroecological, Conventional and Integrated / Low-input applicant profiles. Percentages above each bar indicate the share of total applications citing a given motivation. Percentages within the coloured segments show how applicants belonging to each farming model distribute their motivations across categories.

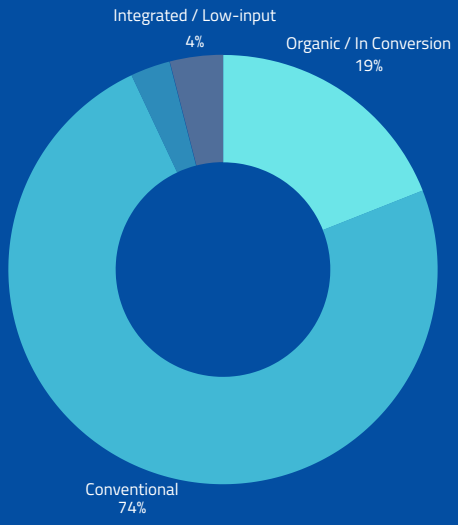
SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)

Breaking down applicant motivations by farming model reveals differentiated patterns (see bar chart on previous page). Innovation & professional development stands out as the most prominent driver among Conventional farmers (39%) and, to a lesser extent, Integrated / Low-input profiles (33%), whereas other farming models display a more even distribution across motivations. By contrast, philosophical / ethical motivation is relatively more prominent among Regenerative / Agroecological practitioners (20%) and shows a gradual decline across Organic / In conversion (16%) and Integrated / Low-input (15%), reaching lower levels among Conventional farmers (11%). Economic sustainability & autonomy is cited somewhat more frequently by Integrated / Low-input and Conventional farmers (16% combined), while remaining less prominent among Regenerative / Agroecological and Organic / In conversion applicants (10% combined). While not definitive, the patterns observed across a large and diverse applicant base suggest that motivational priorities tend to differ in emphasis across farming models.



Southern Europe

Breaking down applicant farming models by region, in a similar way, reveals another pattern, highlighting marked differences between Southern Europe and North-Eastern Europe. In Southern Europe, applicants predominantly operate under Organic / In conversion systems (53%), alongside a substantial presence of practitioners that identify as Regenerative / Agroecological (21%). This suggests a participant base that might already be more closely aligned with concepts of ecological transition and regenerative farming. By contrast, in North-Eastern Europe the applicant pool is largely composed of Conventional farms (74%), with smaller shares of Organic / In conversion, Regenerative / Agroecological, and Integrated / Low-input systems. This indicates that, in this region, training programmes are engaging a more conventional farming audience and potentially reaching farmers at earlier stages of transition.



North-Eastern Europe

Taken together, these patterns suggest that different farming models engage with regenerative agriculture training with varying emphases across motivations and regions, pointing to a potential opportunity for differentiated targeting approaches aligned with different participation contexts.

SCALE UP TRAINING PROGRAMME INSIGHTS FROM TRAINING (2020-2025)

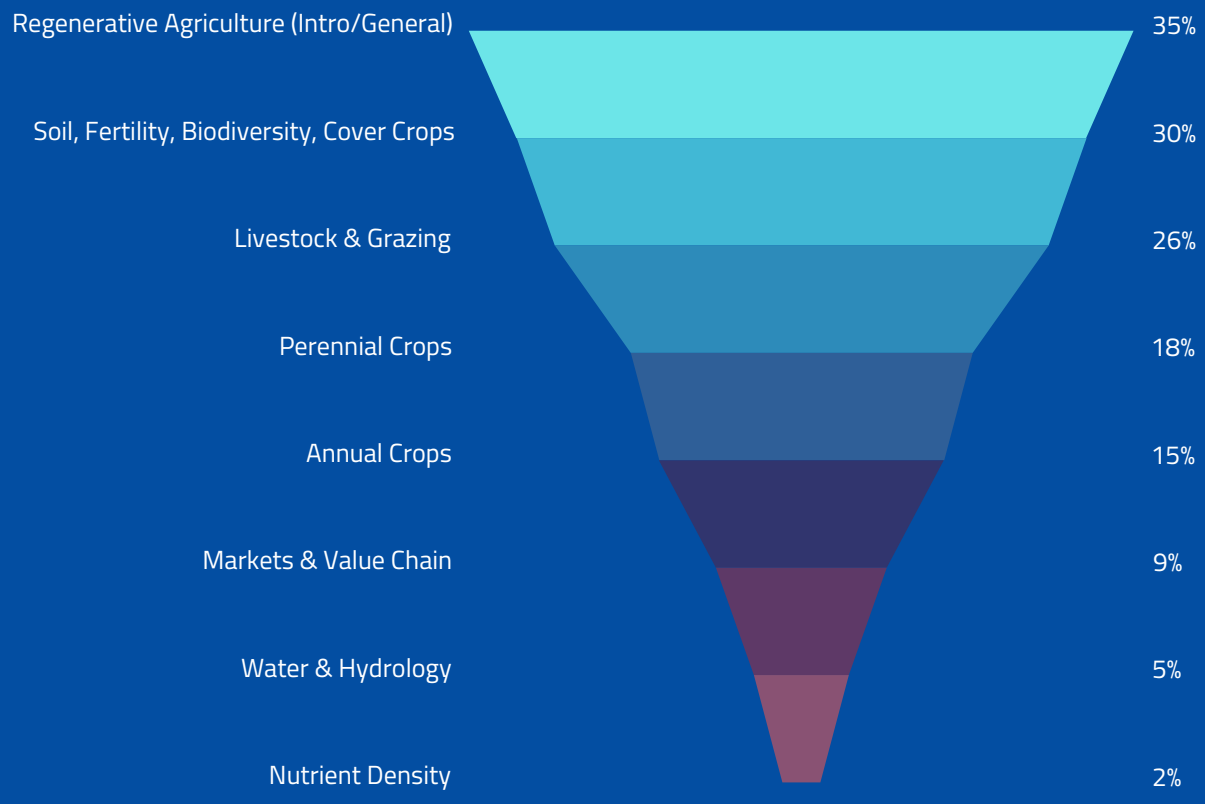
DIVERSITY OF FOCUS AREAS

Finally, the curriculum of training courses was centred on a defined set of primary subject areas - the main focus areas of each course - while other topics were consistently addressed as complementary elements within broader discussions.
This reflects the programme's intent to combine deep technical coverage with integrative, cross-cutting learning.

Foundational modules - covering **general regenerative principles and practices** (35%), **soil health, fertility, cover crops and biodiversity** (30%), and **livestock & grazing** (26%) - formed the technical backbone of the training offer, anchored firmly in the core technical dimensions of regenerative agriculture. These core areas aimed at addressing the most pressing knowledge gaps and building a shared understanding of soil function, fertility, animal integration / management and regenerative principles as the entry point for the transition across European contexts.

Perennial and annual cropping systems (18% and 15%) were also strongly represented as stand-alone subjects, ensuring coverage across diverse production models. In contrast, **markets and value chains** (9%), **water and hydrology** (5%), and **nutrient density** (2%) appeared less frequently, suggesting that the programme's focus remained primarily on ecological and agronomic dimensions rather than on economic or nutritional ones. Other cross-cutting themes - including **social, policy, and digital** dimensions - were also touched upon throughout the courses, though not treated as stand-alone subjects.

This distribution reflects a curriculum aligned with the immediate learning needs of farmers and of creating a shared language based on sound ecological principles, while also pointing to areas for further integration. Strengthening the connection between regenerative practice, economic performance, and product quality could enable future training initiatives to evolve from technical competence toward full system resilience - linking soil and biodiversity management to profitability, water stewardship, and food value creation.



Main thematic focus areas of training courses. Courses often addressed multiple topics and were classified according to their primary thematic focus areas. The funnel shows the share of total courses focusing on each theme; percentages do not sum to 100%, as courses may be associated with more than one focus area, with broader and more frequently taught topics appearing at the top and more specialised ones toward the bottom.

SCALE UP ADVISORY PROGRAMME
ADVISORY IN NUMBERS (2020-2025)

215

>35000

Hectares managed by 2020-

2025 enrolled farmers in total

59

Hectares median farm size
(ranging from 1 to 2300 hectares)

>40

Regen ag experts engaged as advisors

SCALE UP ADVISORY PROGRAMME ADVISORY IN NUMBERS (2020-2025)

The advisory component of the ScaleUp programme was designed to translate training into practice by providing tailored technical guidance to farmers applying regenerative principles on their land. Since 2021, advisory activities have supported farms across nine countries in Southern and North-Eastern Europe, representing an in-depth focus on selected countries where the training phase had already been implemented, fostering on-farm experimentation, monitoring, and peer learning.

While the training programme built broad knowledge and skills among thousands of participants, the advisory work focused on a smaller number of farms engaged in concrete transition processes. The selection of these pilot farms was based on specific criteria including the scalability potential of the farming model, demonstrated commitment to regenerative agriculture, influence within their local or digital communities, and potential for future success. These pilot farms served as reference points within their regions, testing regenerative practices under real conditions and generating practical evidence on their agronomic and economic performance.

The advisory was implemented in different countries through diverse service providers and partner organisations, ensuring that guidance was locally tailored while also building a curated network of national experts across Europe. Typically, the advisory work combined field visits, agronomic diagnostics and the development of transition plans addressing soil health, crop diversification and input optimisation, along with other priority topics identified according to each farm's specific context and needs. Through these efforts, the programme created a feedback loop between training, on-farm research and local practice, supporting the creation of local references for the regenerative transition. Tables summarise all farms that entered the advisory programme between 2020 and 2025, together with their associated agricultural area.

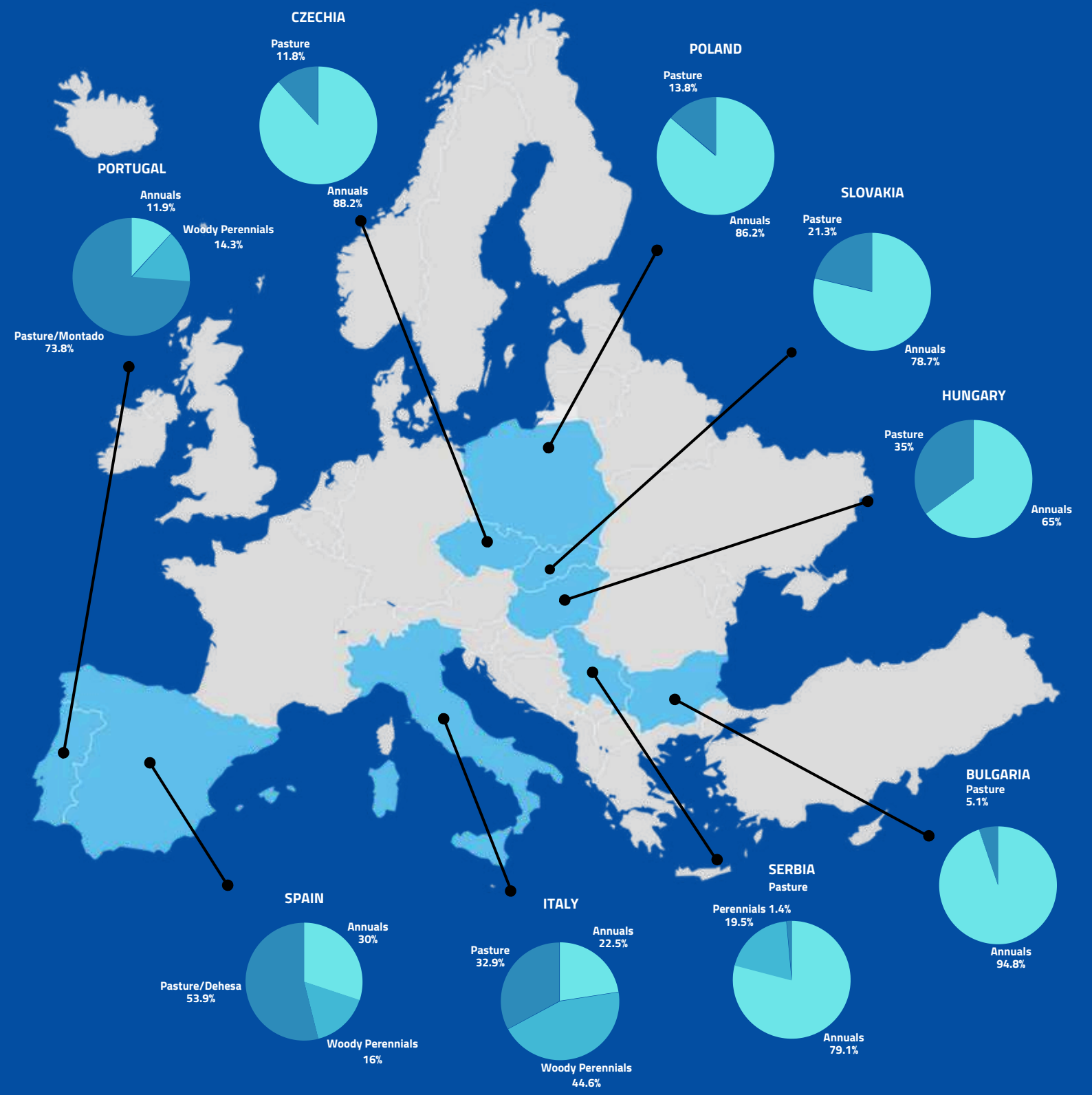
SOUTH

	Italy	Portugal	Spain
Farms involved	30	15	67
Hectares by participant farms	1545	3365	8970
Regen ag experts involved	14	4	9

NORTH-EAST

	Bulgaria	Czechia	Hungary	Poland	Serbia	Slovakia
Farms involved	18	18	18	18	12	18
Hectares by participant farms	12804	6887	1137	6840	1440	5913
Regen ag experts involved	2	2	3	3	2	2

SCALE UP ADVISORY PROGRAMME
INSIGHTS FROM ADVISORY (2023-2025)



Distribution of the dominant production systems of advisory farms across participating countries (2023- 2025). The proportions illustrate the diversity of agricultural contexts addressed by the advisory programme, with respect to annual, woody perennial, and pasture-based systems. Percentages refer to the share of total hectares managed by participating farms under each production type. Mixed or integrated operations were classified according to their predominant land use.

SCALE UP ADVISORY PROGRAMME
INSIGHTS FROM ADVISORY (2023-2025)

FARM-LEVEL ANALYSIS (2023-2025)

From this point onward, the report draws on data collected between 2023 and 2025 from farms participating in the ScaleUp advisory programme. These datasets provide both quantitative and qualitative evidence of progress in the regenerative transition, based on field observations, surveys, soil lab results, remote sensing, and the application of a monitoring framework. Together, they offer a detailed picture of how regenerative practices evolved under local conditions across participating countries.

CROPPING SYSTEMS OVERVIEW

Before delving into country-specific results, this section examines the composition of farms participating in the 2023-2025 advisory cohorts and the distribution of their managed hectares across major production systems - annual, perennial, and pasture-based - across nine countries. This typology helps interpret the diversity of contexts in which advisory support was delivered and where regenerative practices were tested.

Annual cropping systems dominated across Central and Eastern Europe, covering between 65% and 95% of the advisory land base. In Southern Europe, represented a smaller but still significant share: 30% in Spain, 22% in Italy, and 12% in Portugal. These systems were primarily composed of cereals - wheat, barley, maize, oats, and rice - making up between 43% and 69% of total annual crop area across Europe.
Oilseeds (rapeseed, soybean, sunflower) formed another major component, accounting for 17-30% of annual crop area in Eastern countries such as Serbia, Bulgaria, and Slovakia, while root and cole crops (potato, onion, sugar beet, carrot, cauliflower) remained less frequent but regionally relevant, especially in Poland (16%), Hungary (5%), Serbia (5%) and Portugal (4%). Rice in Northern Italy (14%) represents a distinct niche within these annual systems, where water management and soil carbon dynamics emerge as critical entry points for the regenerative transition.

Woody perennial systems were most prominent in Mediterranean countries, representing 45% of advisory hectares in Italy, 16% in Spain, and 14% in Portugal. Within these, vineyards, olive groves, almonds, and fruit orchards were the dominant land uses, alongside minor shares of woodland and intensive agroforestry. Italian farms showed a particularly strong integration of woody perennials and mixed landscapes, with up to 25% of advisory land associated with woodland. The perennial context offered long-term opportunities for carbon sequestration and resilience to climatic extremes, demonstrating how regenerative approaches can enhance both productivity and ecosystem stability.

Pasture and silvopastoral systems formed the ecological backbone of regenerative agriculture in Southern Europe, accounting for 54% of advisory hectares in Spain, 74% in Portugal, and 33% in Italy. In Iberia, these systems included extensive *dehesa* and *montado* landscapes - extensive agroforestry systems integrating livestock, perennial vegetation, and soil conservation. These systems were central to climate adaptation, biodiversity conservation, hydrological regulation, and nutrient cycling, showing strong synergy between traditional management and regenerative innovation.

In synthesis, the distribution of systems across countries reveals both geographical and structural diversity in the regenerative transition. Annual systems dominated the continental plains of Eastern Europe, where large-scale arable farms offered significant potential for soil restoration through diversified rotations. In contrast, Mediterranean countries showcased the integration of perennials and silvopastoral models that connected production with landscape-scale ecosystem functions. Together, these regional contrasts underline the adaptability of regenerative principles across Europe's agricultural mosaic, aligning with the advisory programme's goal of supporting the development of context-specific blueprints for transition across a wide range of conditions.

SCALE UP ADVISORY ANALYSIS METHODOLOGY

Soil cover & functional disturbance

Fertility & inputs

Crop diversity & rotations

Ecological pest & weed management

Water & hydrology

Livestock & grazing

Agroforestry & habitat creation

Woody perennial management

Overall farm & socio-economic organization

Monitoring & digital technologies

Transition themes used to structure the analysis, representing ten families of practices and leverage points that were observed, discussed, prioritised and worked on during advisory visits.

SCALE UP ADVISORY ANALYSIS METHODOLOGY

TRANSITION THEMES AND TRANSITION PROFILES

The following chapters examine how the regenerative transition was addressed and observed through the ScaleUp advisory programme, drawing on aggregated evidence from on-farm advisory work conducted between 2023 and 2025.

Regenerative agriculture is understood here as a set of coordinated changes that progressively reshape how farms manage soil, water, biodiversity, crops, livestock and socio-economic decisions over time. Within the ScaleUp advisory programme, these changes emerge through concrete actions discussed, tested and refined during on-farm advisory visits. This analysis draws on **900 advisory reports collected between 2023 and 2025** across South and North-Eastern Europe, documenting field observations, farmer decisions, trials, experiments and advisory recommendations.

Using a structured text-extraction and classification process, all practice-related statements were identified, split into individual sentences and classified according to a shared taxonomy of regenerative practices, hereafter referred to as **transition themes**: recurring families of practices that capture how farms actively intervene in their systems during the regenerative transition, corresponding to major leverage points within agricultural systems.

The taxonomy was developed both inductively, through analysis of recurring patterns in advisory data, and deductively, by aligning these patterns with established leverage points for the regenerative transition. It is not intended as an exhaustive or normative classification, but as an analytical framework developed specifically to structure and interpret the evidence generated within the scope of this programme.

To analyse how transition themes are distributed across farms, each advisory report was quantified by the relative share of attention devoted to each theme. These relative weights were averaged across reports to describe each farm by its composition of advisory focus rather than by absolute counts of practices.

A Principal Component Analysis (PCA) was then used to explore patterns of co-variance in how transition themes combine, followed by hierarchical clustering to group similar combinations into **transition profiles**, which capture shared configurations of advisory focus and serve as descriptive groupings to characterise and compare farms.

OUTCOMES

Outcomes were interpreted using Agroecology Europe's OASIS framework (Original Agroecological Survey Indicator System), in which each indicator is scored on a five-level scale to assess progression across multiple dimensions of agroecological transition. In this report, regenerative agriculture is used as an overarching term to describe the transition processes addressed through advisory work, and where the OASIS framework refers to agroecological transition the two are treated as conceptually aligned within the scope of the programme, reflecting shared principles related to ecological processes, farming-system functioning, socio-economic resilience and integrated farm management. OASIS was selected precisely because it captures not only agronomic change, but also other themes that are central to the regenerative transition, with 86 indicators organised across five key dimensions: agroecological farming practices, economic viability, socio-political aspects, environment and biodiversity, and farm resilience, each capturing a distinct but inter aspect of change.

It is important to note that, in this report, OASIS was used as a structured reference rather than as a comprehensive indicator-based assessment. While the framework was originally designed to support holistic farm-level assessments, ideally applied across the full indicator set and over time, it was applied here in a targeted way to support the identification and scoring of the outcome areas most relevant to the advisory work. In practice, this meant using the framework to identify, for each farm, a selectively limited set of outcome areas where change was most relevant and most clearly evidenced within the scope of advisory work. For analytical clarity, agricultural input-related indicators across economic and resilience dimensions were aggregated to ease interpretation.

SCALE UP ADVISORY ANALYSIS METHODOLOGY

BARRIERS AND SYSTEM CONSTRAINTS

In parallel with the analysis of practices and outcomes, the report examines barriers and system-level constraints encountered during the transition process. Barriers are understood as limiting factors that hinder the implementation or consolidation of regenerative practices. Identified barriers were organised into a shared analytical framework comprising five broad dimensions: agronomic, economic, organisational, institutional and environmental constraints.

In Southern Europe, barriers were reported directly by advisors as part of their documentation of advisory work. In North-Eastern Europe, barriers were identified through systematic analysis of advisory reports. In these reports, however, practices are the main focus, and references to barriers tend to emerge only partially and in connection with the specific topics addressed during each visit, implying that barriers are captured in a more indirect and topic-dependent manner. Despite these limitations, barriers were retained in the analysis to provide additional context for interpreting practices and outcomes, without the intention of offering an exhaustive account of all constraints faced by participating farms.

COUNTRY-SPECIFIC SUCCESS STORIES (TRANSITION PATHWAYS)

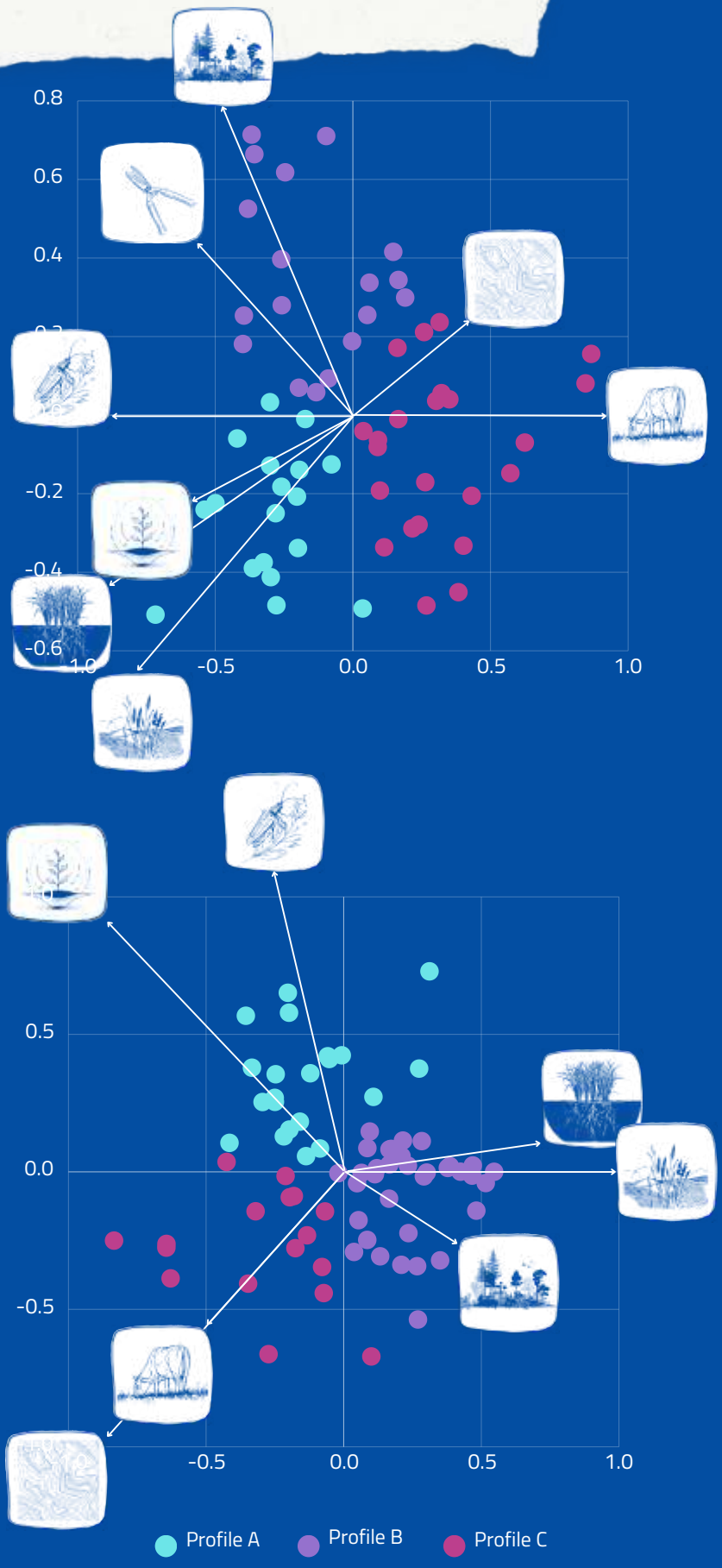
Each country-specific section is presented over three to four pages. First, an "Advisory in numbers" page summarises programme outputs together with a small set of additional trend metrics. These are distinct from the aggregated OASIS-based outcome analysis and include basic programme outputs alongside simple indicators illustrating the observed direction of change. In Southern Europe, photosynthesis and soil cover trends are derived from satellite time series and aggregated to field level across years. In North-Eastern Europe, trend indicators are derived from farm surveys. In both regions, these metrics complement OASIS-based outcomes but are not directly comparable, as OASIS scores reflect qualitative shifts across defined outcome levels rather than incremental change.

The second country-specific page presents two farm case studies per country, referred to as success stories. For each advisory report, the relative share of attention devoted to each transition theme was quantified, and reports were then grouped into a small number of recurring report types using a PCA and clustering approach. The resulting graphical representation of how the relative focus of advisory discussions across transition themes changes over time within individual farms is referred to as a **transition pathway**. Finally, the last page summarises the outcomes associated with each selected farm using the OASIS-based approach described above.

REGIONAL DIFFERENCES IN ADVISORY FOCUS AND DATA COLLECTION

Finally, it is important to consider that, across regions, differences in observed practices, outcomes and constraints reflect not only contextual and agronomic variation, but also systematic differences in how advisory work was structured and documented. In North-Eastern Europe, advisory engagement was more often oriented towards selected fields used as focal points for experimentation, observation and iterative learning, while remaining embedded within the broader farm context. As a result, many observations and documented changes originate at field level, even where they signal wider implications or subsequent extension at farm scale. In this context, outcomes and barriers were derived ex post through systematic analysis of advisory reports, including dedicated annual assessment reports in which advisors summarised the most significant changes observed during the year. In Southern Europe, advisory work more frequently addressed entire cropping systems or broader farm operations, with a clearer farm-level framing, and outcome indicators and barriers were selected and scored directly by advisors as part of their ongoing engagement with farms, drawing on repeated on-site observations and advisory documentation. These differences in advisory focus and data-collection approaches influence the scale, scope and type of change that is most readily observed and documented, and should be taken into account when interpreting regional patterns in practices, outcomes and barriers throughout the report.

CHARACTERISING FARMS (2023-2025) TRANSITION THEMES



Southern (top) and North-Eastern (bottom) European farm characterisation showing the relative distribution of advisory attention across transition themes. Each point represents a farm, positioned according to the relative share of advisory attention devoted to different themes. Distance from the centre reflects how much emphasis on a theme differs between farms (farther = more, closer = slightly less). The position and orientation of theme icons indicate how topics tend to vary together (semi-parallel arrows), contrast with one another (opposite arrows), or change independently across farms (right or near-right angle arrows). Non-differentiating themes are not displayed.

CHARACTERISING FARMS (2023-2025) TRANSITION THEMES

DISTRIBUTION OF ADVISORY FOCUS ACROSS TRANSITION THEMES

This section aims to provide a descriptive overview of the farms participating in the programme, which represent a selected group of early adopters engaged in regenerative agriculture within each country. It examines how advisory conversations are distributed across transition themes, drawing on reports from individual advisory visits that document the topics discussed and classify them into ten transition themes. This allows observation of how themes tend to co-occur, trade off, or vary independently.

Each point in the charts represents a farm, positioned according to how advisory attention is proportionally allocated across the ten themes identified. In practice, this reflects what advisory visits mainly focus on. On some farms, discussions concentrate on soil cover, nutrient management, and crop rotations, with other topics appearing only marginally. On others, advisory exchanges are more oriented toward grazing systems, water management, or organisational aspects, while soil and fertility remain present. The charts capture these differences by comparing the relative weight each theme occupies within advisory conversations. Interpreting the charts relies on two elements: distance from the centre and direction.

Distance from the centre indicates how much a theme's relative emphasis varies between farms. Themes positioned further out show more pronounced swings in emphasis: in some farms they occupy a more appreciable share of the advisory discussion, while on others they play a slightly smaller role. Themes closer to the centre, by contrast, tend to appear more consistently across farms, changing less in their proportional weight.

Direction is visible in the chart through the position and orientation of the icons and their arrows, and indicates how themes vary in relation to one another. Themes pointing in similar directions tend to increase or decrease together, while themes pointing in opposite directions indicate trade-offs in relative emphasis. Themes oriented at right angles vary more independently, meaning that, across farms, shifts in advisory attention to one theme are not consistently associated with shifts in another theme.

TRANSITION THEMES IN SOUTHERN EUROPE

In Southern Europe, some transition themes point in opposite directions, indicating contrasts in how emphasis within advisory exchanges is distributed between farms.

Livestock & grazing and Pest & weed management as opposing emphases (horizontal direction). Positioned on opposite sides of the chart, these themes indicate a recurring trade-off in how advisory discussions are weighted. On farms located on the right side of the chart, advisory exchanges place greater attention to grazing systems and animal integration, with comparatively less emphasis on pest and weed management, and the reverse pattern is observed for farms on the left side of the chart.

Agroforestry, habitat, and woody perennials as a vertical source of differentiation (vertical direction). Vertical distance from the centre indicates appreciable variation between farms in the prominence given within advisory exchanges to tree-based systems, habitat features, and woody perennial management. On farms positioned in the upper part of the chart, advisory discussions concentrate strongly on these themes, while on others they receive little or no attention.

Soil cover, crop diversity & rotations, and fertility & inputs moving together. Being closely aligned, their relative importance tends to rise or fall together across advisory discussions on different farms. Fertility follows the same direction, though with more limited variation, meaning that the share of advisory attention devoted to it varies less from one farm to another. This cluster contrasts with Water & hydrology, suggesting that advisory conversations emphasising soil- and crop-related themes often assign comparatively less weight to water management, and vice versa.

Water management, planning, and monitoring as more stable emphases. Water & hydrology defines a distinct but more moderate axis of variation, pointing to differences between farms that are less pronounced than those linked to livestock or agroforestry. Overall farm planning & socio-economic operations and Monitoring & digital technologies are not shown in the chart, as they recur with relatively consistent within different farms.

CHARACTERISING FARMS (2023-2025) TRANSITION THEMES

TRANSITION THEMES IN NORTH-EASTERN EUROPE

In North-Eastern Europe, advisory attention on participating farms is distributed along several directions that coexist without forming strong overall oppositions.

Crop diversity & rotations and soil cover & reduced disturbance as a linked pair. In the right-hand side, they point in nearly the same direction, indicating that increases or decreases in advisory attention to one theme are typically mirrored by the other. Crop diversity lies slightly farther from the centre, showing that its relative emphasis varies more between farms than that of soil cover.

Water and livestock management increasing together. In the bottom-left quadrant, they are closely aligned, meaning that advisory attention to these themes tends to rise or fall together across farms. Water lies farther from the centre, indicating that water-related topics contribute more appreciably to distinguishing how advisory emphasis differs between farms, while the share of attention dedicated to livestock varies slightly less from one farm to the other.

Fertility & inputs and Pest & weed management as more independent emphases. In the upper-left quadrant, they are positioned far from the centre and do not align closely with the main paired themes, indicating that while they appear in advisory conversations on different farms alongside crop-soil or water-livestock themes, the share of attention devoted to them varies independently. They show a mild contrast with Agroforestry & habitat, meaning that emphasis on these themes tends to coincide with a slightly lower emphasis on habitat-related topics, and vice versa.

Habitat, monitoring and planning as background themes. Agroforestry & habitat occupies an intermediate position, reflecting moderate variability in the way it appears across different farms (here mainly in its habitat component). Overall farm planning & socio-economic operations and Monitoring & digital technologies were not included in the chart, since they are topics that recur only marginally within advisory conversations.

COMPARING TRANSITION THEMES IN SOUTHERN AND NORTH-EASTERN EUROPE

Taken together, these patterns reveal forms of differentiation in how transition themes enter and are combined within advisory conversations. That said, they do not represent definitive or exhaustive conclusions, as they are grounded in field-based advisory reports rather than in a controlled experimental design. Instead, they should be read as an illustrative and narrative tool for describing how advisory conversations unfold across participating farms in Southern and North-Eastern Europe, and for highlighting emerging patterns that can inform further data collection for farm characterisation.

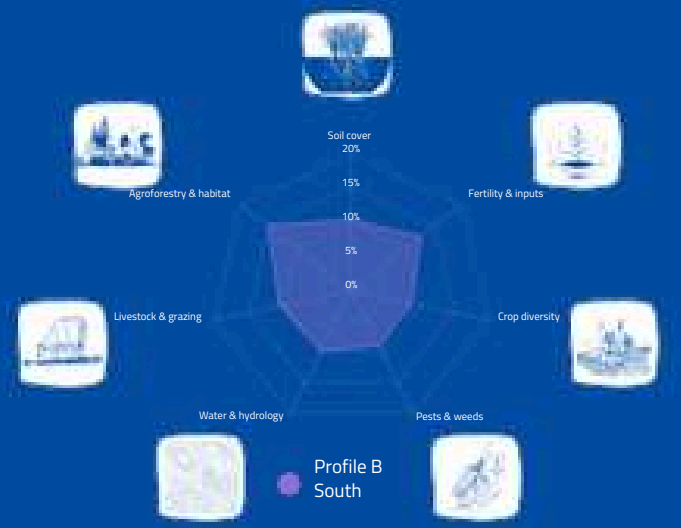
First, the analysis shows that **advisory attention across participating farms does not follow a single dominant pathway**, but varies along multiple directions in both Southern and North-Eastern Europe. Farms differ in how advisory time is distributed across transition themes, and these differences emerge along several coexisting directions of variation rather than as a simple gradient from “low” to “high” engagement.

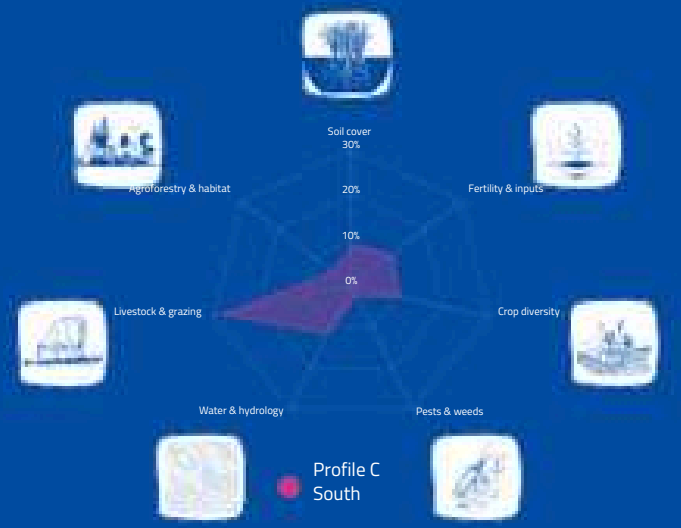
Second, **some themes consistently vary together** across farms. In both regions Soil cover & reduced disturbance and Crop diversity & rotations tend to increase or decrease in parallel, indicating recurring combinations of advisory emphasis on crop and soil management.

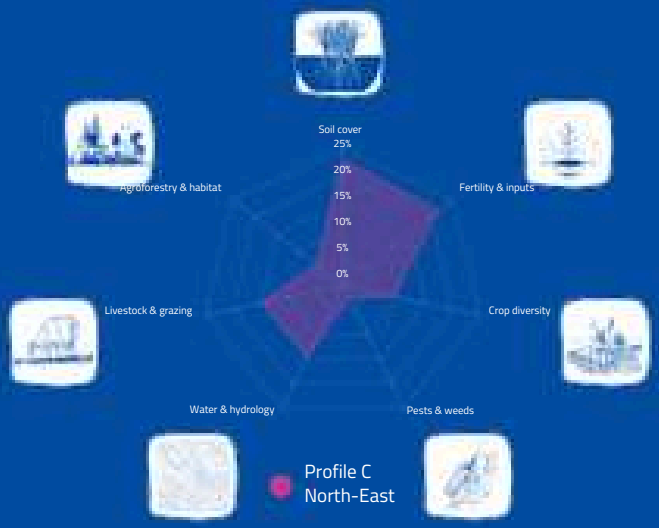
Third, differentiation between farms also reflects how **advisory attention is rebalanced across themes**, with regional nuances. In Southern Europe, the contrast is between Livestock & grazing and Pest & weed management, with agroforestry and woody perennial topics adding further differentiation. In North-Eastern Europe, contrasts are less pronounced: Fertility & inputs varies more independently, while agroforestry and habitat-related topics play a more secondary role.

Overall, looking at data from this point of view shows that differences between farms lie less in whether transition themes are addressed, and more in how advisory attention is combined and rebalanced across themes, reflecting diverse farm contexts and advisory trajectories.

CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES







Southern (left) and North-Eastern (right) Europe transition profiles capturing the average distribution of advisory attention across transition themes for each profile (Profile A-C). Values are percentages and sum to 100% within each profile. Profiles reflect differences in the shape of advisory focus across different themes.

CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES

TRANSITION PROFILES: RECURRING ADVISORY THEMATIC COMBINATIONS

So far, the analysis has examined how transition themes tend to increase or decrease together across advisory discussions, highlighting relationships between themes and patterns in how advisory attention shifts across farms. This perspective focuses on co-variation between themes, showing which ones are typically emphasised together and how emphasis changes when others become less prominent.

To complement this view, we now examine the average distribution of advisory attention within groups of farms that share similar thematic patterns, referred to here as **transition profiles**, capturing recurring configurations of advisory focus across transition themes. The spider charts summarise how advisory attention is proportionally allocated across transition themes within each profile. Rather than describing individual farm trajectories, they capture the relative weight that each theme represents, on average, within a given profile (cluster of farms).

This shift in perspective allows the analysis to move from relationships between themes to how these themes are combined within farms, enabling the identification of recurring thematic configurations observed within the advisory process.

TRANSITION PROFILES IN SOUTHERN EUROPE

Profile A - Strong soil, fertility, and crop emphasis. Profile A is characterised by higher relative emphasis on soil cover, fertility, and crop diversity than the other profiles. All three soil-crop themes reach their highest levels here, giving this profile a clearly agronomic orientation. Pest and weed management is present at a level comparable to Profile B, but livestock receives very little attention. Overall, advisory attention is more crop-related themes, with limited space allocated to livestock, water, and agroforestry.

Profile B - More balanced distribution with agroforestry and habitat prominence. Profile B shows a more even distribution of advisory attention across themes. Agroforestry and habitat stand out more clearly here than in the other profiles, alongside moderate attention to livestock and water. Soil cover and crop diversity are present but less dominant than in Profile A, while pest and weed management remains comparable to Profile A and clearly higher than in Profile C. This profile reflects a less concentrated advisory pattern, without a single theme clearly dominating.

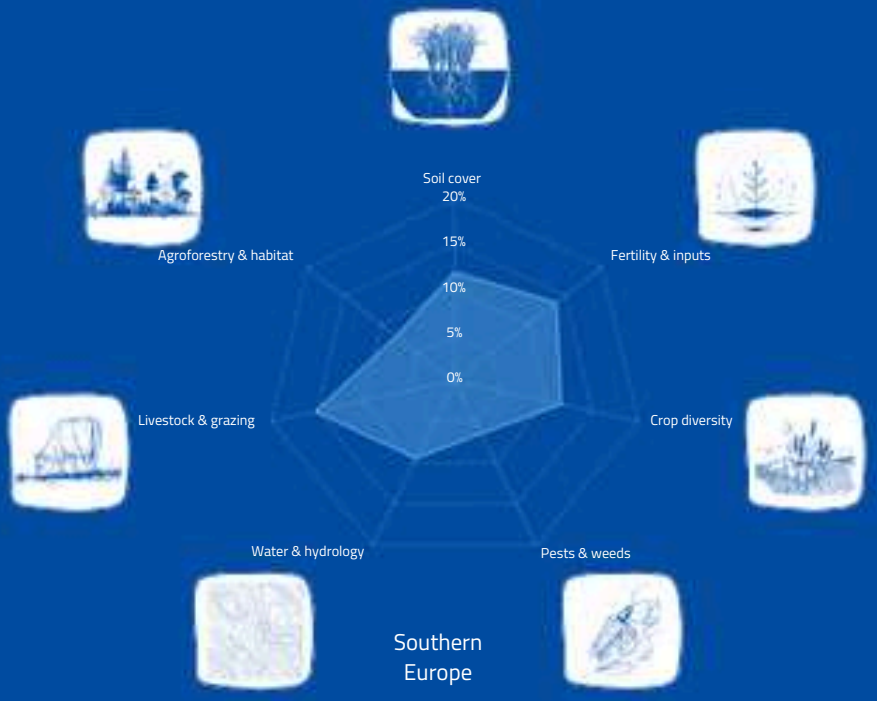
Profile C - Livestock and water-oriented configuration. Profile C is clearly distinguished by its strong emphasis on livestock and grazing, which far exceeds that of the other profiles. Water management also reaches its highest relative level here, reinforcing this orientation. Soil cover, fertility, and crop diversity are all less prominent than in Profile A, while pest and weed management is minimal. Advisory attention in this profile is therefore strongly concentrated on livestock and partially on water, with other themes playing a secondary role.

TRANSITION PROFILES IN NORTH-EASTERN EUROPE

Profile A - Fertility-focused with elevated pest management. Profile A stands out for its strong emphasis on fertility and inputs, which reaches its highest level among the three profiles. Soil cover also represents a substantial share, though less than in Profile B. Pest and weed management is clearly more prominent here than in the other profiles, while crop diversity occupies an intermediate position. Water, livestock, and agroforestry remain comparatively limited, resulting in a more concentrated focus on fertility, soil, and pest-related themes.

Profile B - Soil and crop diversity-oriented profile. Profile B is most strongly oriented toward soil cover and crop diversity, both of which reach their highest relative levels here. Fertility remains important but is less dominant than in Profile A.

CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES



Southern (top) and North-Eastern (bottom) Europe transition profiles (regional average), showing the average distribution of advisory attention across transition themes for all farms in each region. Values are percentages and sum to 100%, providing a regional reference that aggregates the respective Profiles A-C.

CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES

Agroforestry and habitat also receive more attention in this profile than in the others, while water, livestock, and pest management occupy smaller shares. Overall, advisory attention is more clearly shaped by soil and crop-related themes.

Profile C - Broader mix including water and livestock. Profile C shows a more distributed allocation of advisory attention. Soil cover and fertility continue to account for a large share, but water and livestock both reach their highest relative levels here. Crop diversity is less prominent than in Profile B, while pest management remains marginal. Compared to the other profiles, this configuration reflects a broader thematic mix spanning soil, fertility, water, and livestock.

COMPARING PROFILE PATTERNS IN SOUTHERN AND NORTH-EASTERN EUROPE

When advisory attention is aggregated across all farms (regional aggregate charts on the previous page), **Southern and North-Eastern Europe show a marked difference**. North-Eastern Europe shows a stronger concentration on Soil cover & reduced disturbance and Fertility & inputs, which together account for a substantially larger share of advisory discussions. In Southern Europe, by contrast, advisory attention is more evenly distributed across themes, with higher relative shares devoted to Livestock & grazing, Water & hydrology, and Agroforestry & habitat when compared to the North-Eastern European average.

This difference in the regional average distribution of advisory attention helps explain why similar profiles take on different shapes across the two regions. In North-Eastern Europe, profiles emerge from an already strong concentration on soil cover and fertility, so shifts toward other themes occur without displacing this core. In Southern Europe, where attention is more evenly spread at the outset, similar shifts lead to more pronounced rebalancing away from soil-fertility themes.

For example, **Soil cover & reduced disturbance** and **Fertility & inputs** consistently occupy substantial shares across all profiles in both regions, even when they are not the most prominent themes.

While their relative importance varies from one profile to another, they never fall to fully marginal levels.

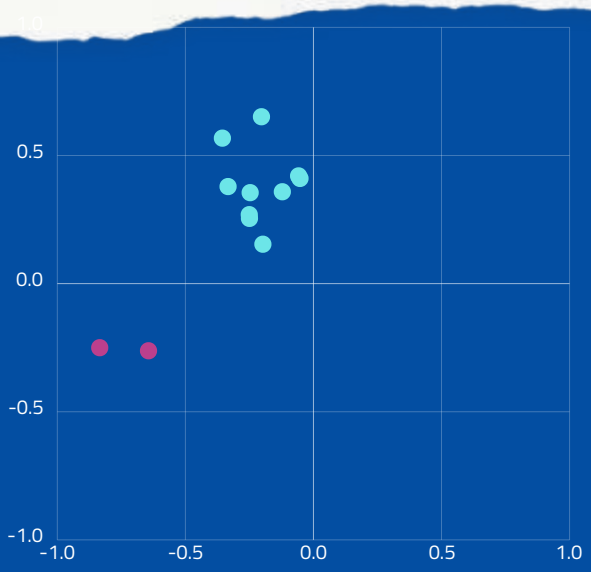
That said, in North-Eastern Europe, these themes consistently account for a large share of advisory attention across all profiles. While their relative weight still varies enough to differentiate farms, they remain prominent regardless of changes in other themes. In Southern Europe, by contrast, their share declines in some profiles as advisory attention shifts toward livestock, water, or agroforestry, resulting in profiles where soil-fertility themes are less structurally central.

Similarly, in both regions, **Livestock & grazing and Water & hydrology** reach their highest relative values within a specific profile, but in different ways. In Southern Europe, this takes the form of a clearly specialised livestock-oriented profile, where livestock and water expand strongly while soil-crop and pest themes recede. In North-Eastern Europe, the same themes peak without displacing soil and fertility, resulting in more balanced profiles.

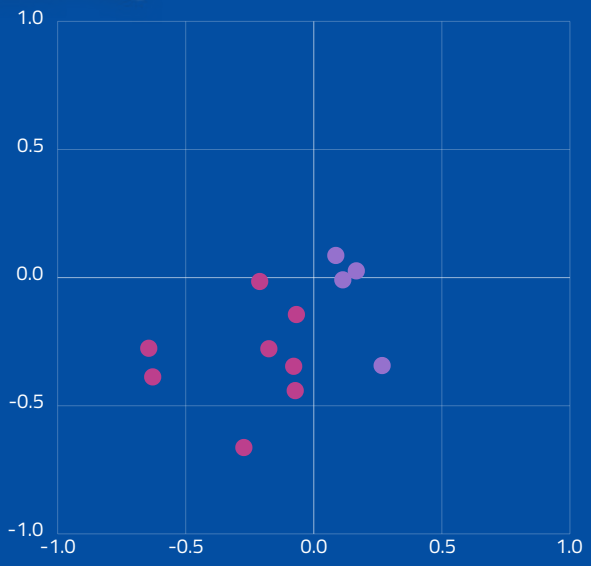
A complementary contrast emerges when considering **Agroforestry & habitat**. In both regions it reaches its highest relative level in Profile B, but only in Southern Europe does it clearly stand out as a distinguishing feature. This is consistent with the presence in Southern Europe of mixed landscape and woody-crop systems (the latter not shown in the chart), which are more prominent in this profile and where agroforestry tends to be closely associated with woody perennial crop management, requiring more sustained advisory attention.

Overall, these profiles show that, in both regions, advisory attention differs primarily through rebalancing in the relative emphasis placed on transition themes, rather than through the inclusion or exclusion of specific topics. Each profile reflects a recurring way in which multiple themes are combined within advisory discussions, producing closely related but distinct configurations of advisory attention. This perspective supports illustrative comparison across farms and countries, while preserving the complexity of how regenerative transitions are discussed and supported on the ground.

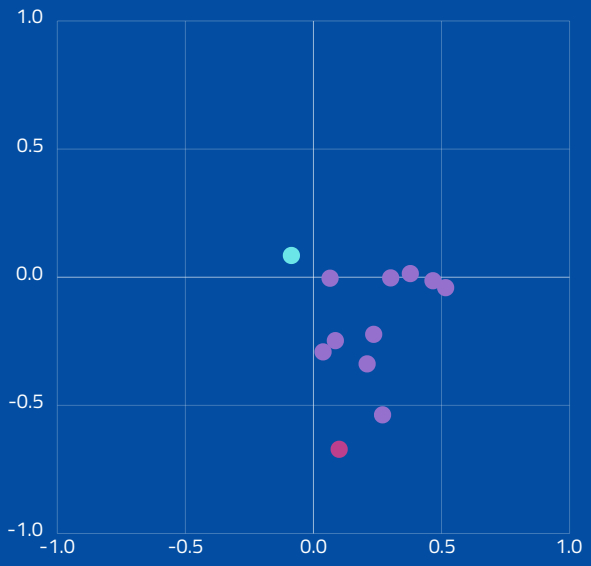
CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES



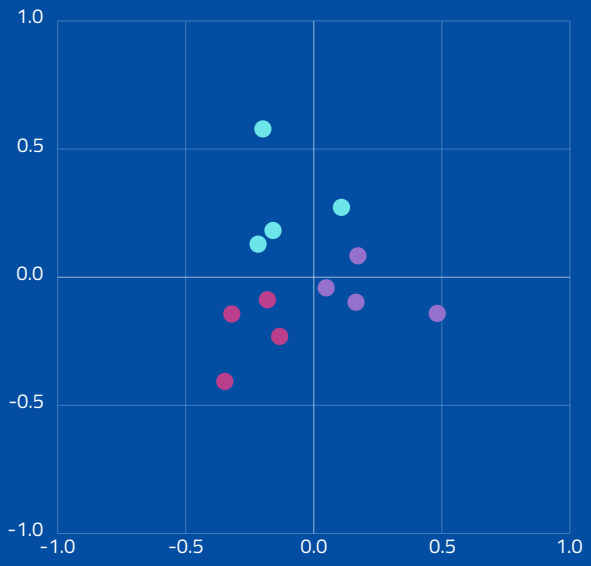
Bulgaria



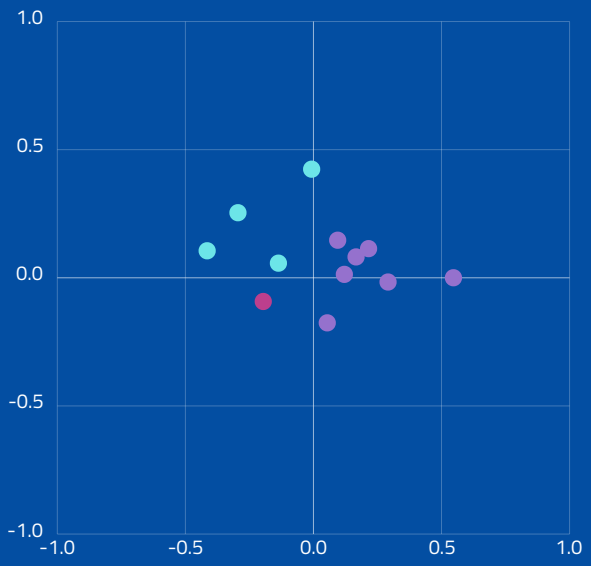
Czechia



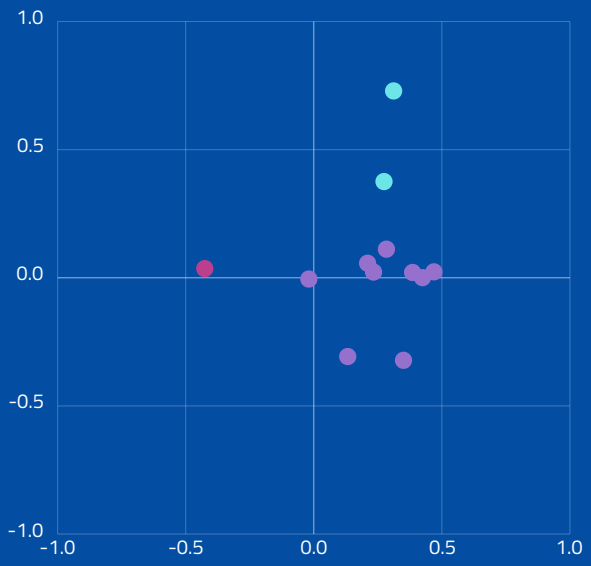
Hungary



Poland



Serbia



Slovakia

Profile A Profile B Profile C

North-Eastern Europe, country-specific distribution of advisory profiles across transition themes.

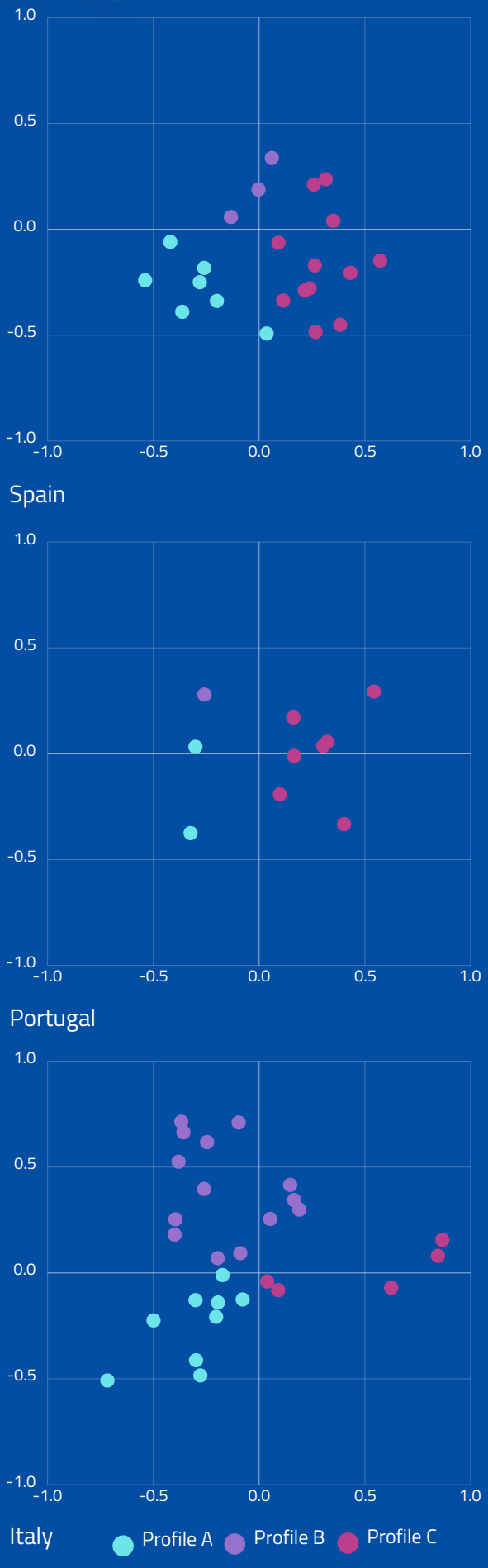
CHARACTERISING FARMS (2023-2025) TRANSITION PROFILES

COUNTRY-LEVEL DISTRIBUTION OF ADVISORY PROFILES

Looking at how the three advisory profiles are distributed across countries, in Southern Europe, the most distinctive signal comes from Profile C, which dominates in **Portugal** (70%) and **Spain** (55%), while being less prevalent in Italy (18%). This profile corresponds to advisory pathways centred on livestock and water management, suggesting that among Southern farms engaged in the programme, regenerative transitions are often explored through pathways anchored in these domains. **Italy** shows a more mixed configuration: Profile B is the most common (50%), reflecting farms where woody crops, agroforestry and habitat-related themes play a larger role within a more balanced advisory mix, while Profile A remains clearly present (32%), at a level comparable to Spain, indicating a substantial group of farms emphasising soil, fertility, and crop-related themes rather than livestock.

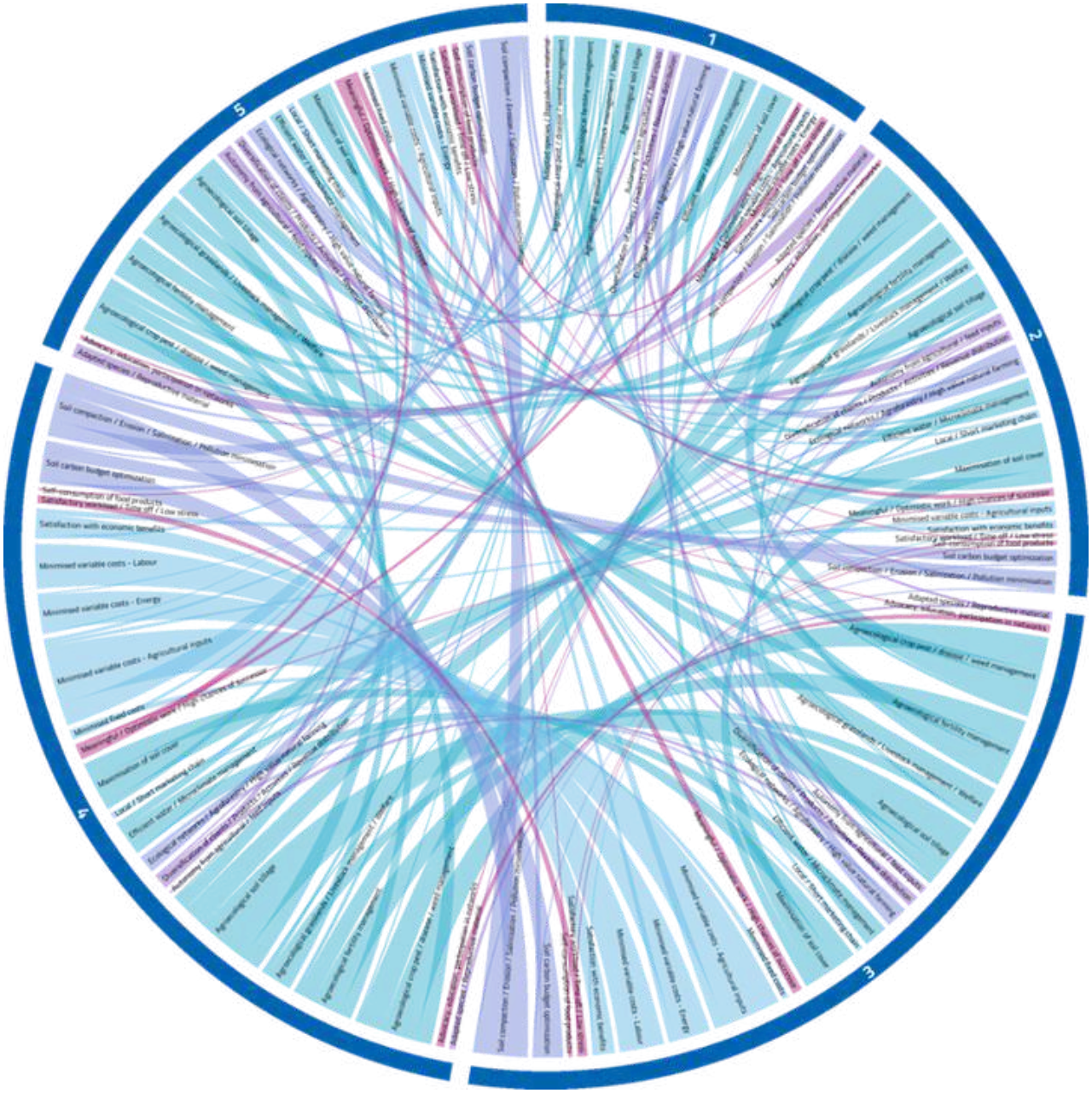
In North-Eastern Europe, no single advisory profile dominates the region as a whole, but strong country-level concentrations reveal distinct national patterns among participating farms. Profile A is overwhelmingly dominant in **Bulgaria** (83%), pointing to advisory pathways strongly oriented toward soil and fertility management and, secondarily, pest and weed issues. By contrast, Profile B prevails in **Hungary** (83%), **Slovakia** (75%), and **Serbia** (58%), highlighting farms where soil cover and crop diversity, alongside habitat-related themes receive greater relative emphasis within advisory discussions. **Czechia** stands out for the dominance of Profile C (67%), corresponding to farms where water and livestock receive comparatively more advisory attention alongside soil and fertility themes, resulting in a broader and more evenly distributed thematic mix. **Poland** represents a balanced case, with an almost equal distribution across the three profiles (≈33% each), suggesting a high degree of diversity in advisory pathways among participating farms rather than convergence toward a single dominant configuration.

These patterns reflect the diversity of early adopters and pilot farms engaged in the programme, offering a comparative lens on how regenerative practices are being explored, prioritised, and combined across contexts in Southern and North-Eastern Europe, concluding the descriptive overview of the farms participating in the programme.



Southern Europe, country-specific distribution of advisory profiles across transition themes.

ASSESSING IMPACT (2023-2025) ADVISORY OUTCOMES



Agroecological farming practices Economic viability Environment and biodiversity Farm resilience Socio-political aspects

Aggregated outcome progression across 116 participating farms in Southern and North-Eastern Europe (2023- 2025). The chord diagram illustrates transitions between outcome scores for each indicator over the programme period, aggregated across all participating countries. Outcome scoring is based on Agroecology Europe's five-point OASIS framework. Flows indicate upward movements, showing progression towards more advanced outcome levels, and represent the share of farms moving from one score to another, with flow thickness proportional to the number of farms involved in a given transition. For example, in the lower part of the chord diagram, the indicator "Soil carbon budget optimisation" is anchored to the score-3 arc. A small incoming flow from score 2 to 3 indicates limited progression from lower baseline levels, while larger outgoing flows from score 3 to 4 and from score 3 to 5 reflect more substantial improvements among farms starting at intermediate outcome levels. To ensure readability, closely related indicators are grouped in this overview; disaggregated indicator-level results are presented on the following pages.

ASSESSING IMPACT (2023-2025)
ADVISORY OUTCOMES

ADVISORY OUTCOMES

Following the farm characterisation phase, this section presents the outcomes observed during the programme period across participating farms and regions. Outcomes describe documented changes associated with advisory engagement and are assessed at field or farm level, depending on the scope of advisory implementation. For further details on the framework adopted and methodological choices, readers are referred to the Methodology section. Here, it is sufficient to recall that outcomes were scored using the OASIS agroecology framework, applied in an adapted form to this particular context, and are not intended to provide a comprehensive assessment of overall farm performance, but rather to identify areas where change was most meaningfully observed, discussed, or tracked within the scope of the ScaleUp advisory programme.

It is important to note that, given the relatively young age of the programme and the multi-year nature of many regenerative processes, the outcomes presented here should not be treated as definitive measures of late-stage or whole-farm transformation - at least not in all farms - but should primarily be read as indications of emerging change trajectories and growing impact. At the same time, the absence of reported progress for a given outcome area does not necessarily imply that such an area is not being addressed on the farm. Rather, it may reflect any of the following factors: limited focus on that particular area, pre-existing advanced practices already adopted by the farm at the start of engagement, potential trade-offs that were not explicitly documented within the advisory records, or positive positive changes being pursued independently by the farm outside the scope of the advisory work.

Nonetheless, these outcomes provide an empirically grounded indication of how the regenerative transition is beginning to materialise under advisory support, highlighting areas in which change is already consolidating as well as those where it is still emerging. Overall, they signal positive and consistent directions of change aligned with the objectives of the advisory programme and offer early insights into how regenerative agriculture is being absorbed, implemented, and translated into impact across different farming contexts.

AGGREGATED OUTCOME PROGRESSION

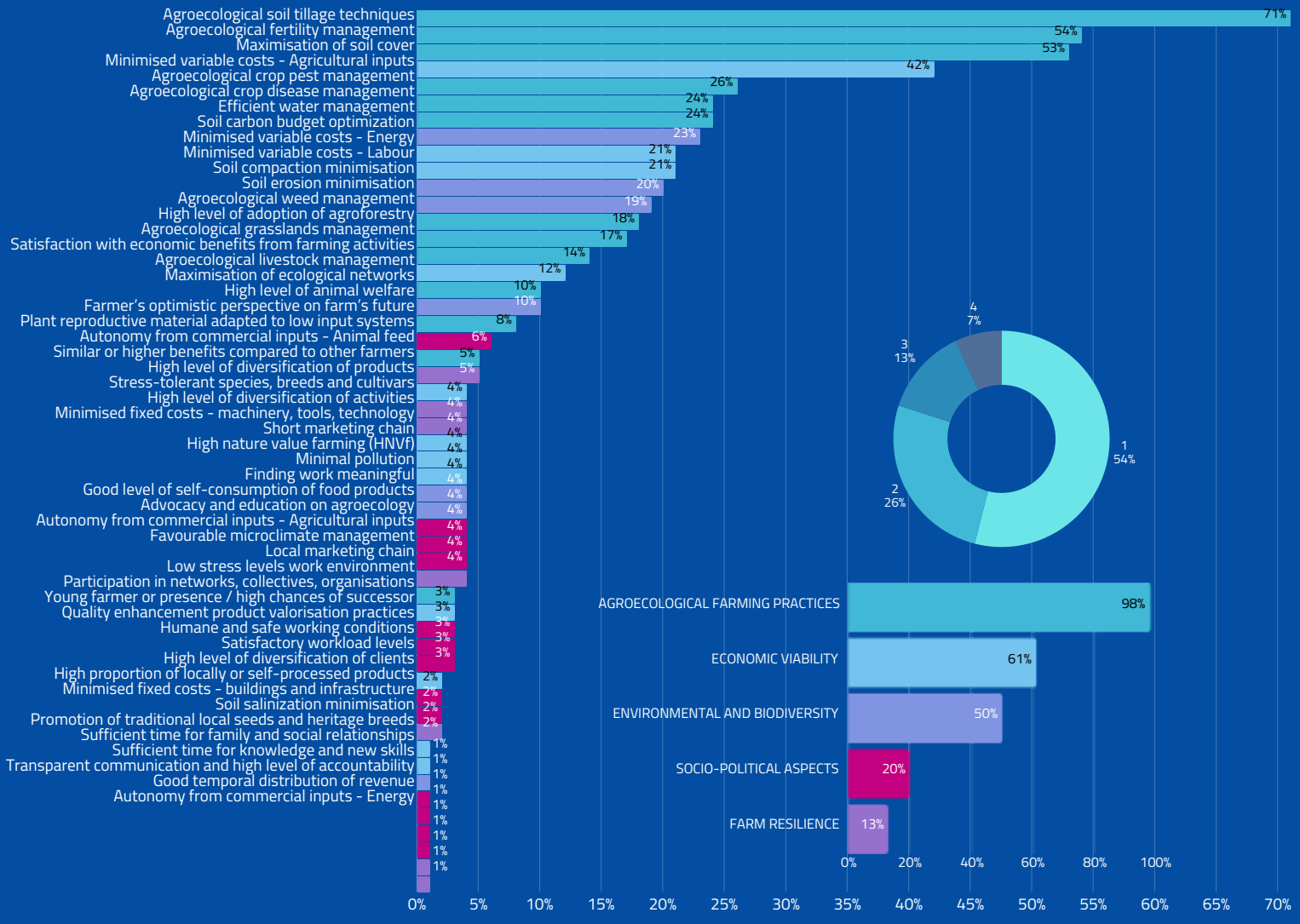
Across outcome dimensions, **the intensity of progression** observed during the programme **is predominantly incremental**. When assessed against the five-level OASIS scale, the majority of documented progress corresponds to advancement by a single outcome level, accounting for 54% of all observed progressions (donut chart below). A further 26% of progressions reflect movement across two outcome levels, while larger shifts of three or four levels are less frequent, representing 13% and 7% of cases respectively. This distribution indicates that change most commonly takes the form of stepwise advancement along defined transition pathways, rather than abrupt or discontinuous shifts.

Looking at the five OASIS dimensions, **98% of farms showed progression in at least one farming practices indicator** (dimension-level bar chart below), indicating that changes related to farming practices were almost universally documented within the scope of the programme. Economic outcomes were also commonly observed, with progress identified in 61% of cases, while environmental and biodiversity-related outcomes were documented in 50%. In contrast, socio-political outcomes and farm resilience outcomes were less frequently captured, with progress identified in 20% and 13% of farms respectively.

This pattern is consistent with the initial focus of advisory work, which was predominantly oriented towards technical and agronomic practices that could be addressed directly through on-farm engagement. It might further suggest that outcomes related to socio-political dimensions and broader aspects of farm resilience tend to emerge more gradually and to require longer time horizons.

At indicator level, **the most frequently observed progress relates to core farming practices**. Soil tillage techniques represent the most widespread outcome progression, with progression documented in 71% of farms. In OASIS terms, these progressions typically correspond to shifts from conventional or moderately intensive tillage towards reduced tillage practices, including superficial or strip tillage, and in some cases no-till systems applied in a more systematic way.

ASSESSING IMPACT (2023-2025)
ADVISORY OUTCOMES



Aggregated outcome progression across 116 participating farms in Southern and North-Eastern Europe (2023- 2025). The donut chart (right) shows how many cases progressed by one or more levels along the five-point OASIS scale, distinguishing incremental shifts from larger step changes. The dimension-level bar chart (right) reports the share of farms for which at least one change was documented within each OASIS outcome dimension, across agroecological, economic, environmental, socio-political and resilience-related areas. The indicator-level bar chart (centre) shows, for each outcome indicator, the percentage of farms for which a change was documented, with indicators ordered by decreasing frequency. Together, they provide an integrated overview of where outcome progression was most frequently observed, the typical intensity of such progression, and how changes were distributed across outcome domains and specific indicators within the scope of the advisory programme.

ASSESSING IMPACT (2023-2025)
ADVISORY OUTCOMES

Fertility management (54%) and Soil cover maximisation (53%) are also frequently observed outcomes. For fertility management, progression commonly reflects movement from limited or occasional use of agroecological practices towards more systematic implementation, such as diversified rotations and organic amendments applied to a larger proportion of farmed land. For soil cover, progress corresponds to increases in the proportion of the year during which soils remain covered, moving from partial to near-continuous coverage.

A second group of indicators shows intermediate levels of observed change. Within agroecological farming practices, this includes indicators related to crop pest (26%), crop disease (24%) and water management (24%), together with weed control (18%), reflecting shifts from high-input strategies towards more integrated, preventive and conservative approaches. In parallel, intermediate levels of change are also observed across economic and environmental dimensions. Reductions in variable costs related to agricultural inputs are documented in 42% of cases, while reductions in energy and labour costs are observed in 21% of cases that, within the OASIS framework, generally correspond to shifts from expenditure levels close to regional averages towards lower-than-average cost levels. Environmental indicators such as soil carbon budget optimisation (23%), soil compaction minimisation (20%), and soil erosion minimisation (19%) also fall within this intermediate range and correspond to clearly defined changes in soil condition, including improvements in soil structure, ground cover, and erosion risk management.

A broader set of indicators shows more limited but still meaningful signs of progression. Progress is also observed, though less frequently, in areas such as agroforestry, grassland and livestock management, ecological network development, and animal welfare. Socio-political and farm resilience indicators, including work satisfaction, time availability, diversification, and autonomy from external inputs, appear less frequently in the aggregated outcome profile. Their lower representation might reflect both the focus of advisory engagement and the longer timeframes and broader systemic conditions typically required for change to be observed and documented in these dimensions.

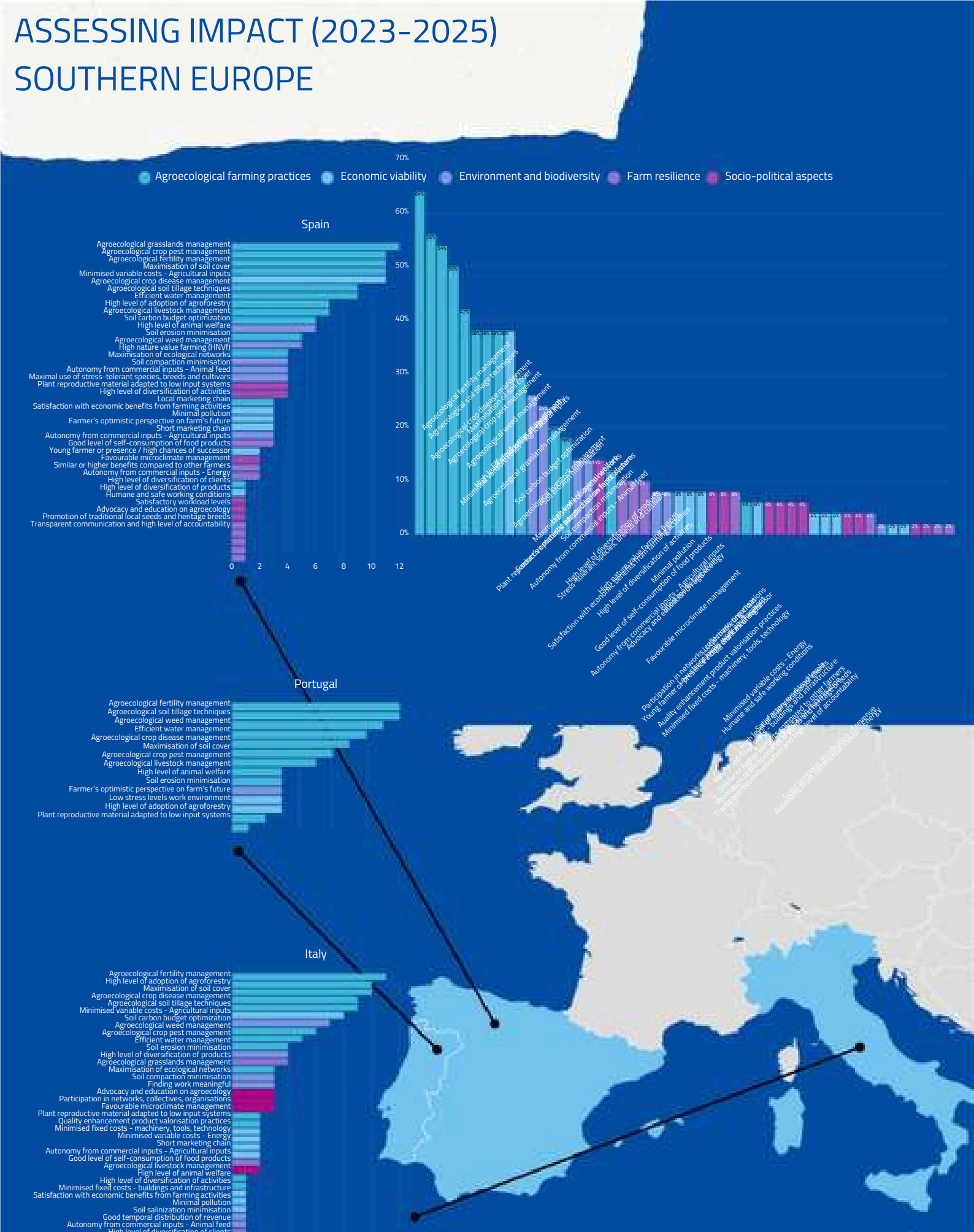
REGIONAL OUTCOME PATTERNS

Agroecological farming practices show a most consistent outcome progression across both Southern and North-Eastern Europe, confirming these as a primary entry point of advisory engagement. In North-Eastern Europe, changes are strongly concentrated on a limited set of soil-related practices, with agroecological soil tillage techniques emerging as the dominant indicator (82%), followed by soil cover maximisation (52%) and fertility management (47%). In Southern Europe, by contrast, outcome progression is more evenly distributed across a wider range of practices, including fertility management (64%), soil tillage (56%) and soil cover (54%), alongside crop disease management (50%), pest management (42%), weed and water management (38%), and agroforestry adoption (38%). Taken together, these patterns suggest that advisory followerd a more concentrated, practice-specific trajectory in North-Eastern Europe and a more horizontally distributed set of changes across agroecological practices in Southern Europe.

Indicators related to crop protection, water management and agroforestry show a clear regional differentiation. In Southern Europe, crop disease (50%), pest (42%) and weed management (38%), together with efficient water management (38%) and agroforestry (38%), are among the most frequently documented outcomes, reflecting advisory engagement with complex biotic pressures, water constraints and system-level design choices, while in North-Eastern Europe, these indicators appear less frequently. This contrast reflects differing advisory priorities, with the ScaleUp programme in Southern Europe placing greater emphasis on integrated crop protection and system diversification, and advisory work in North-Eastern Europe progressing more specifically on soil-related interventions.

Economic outcomes are observed in both regions but follow different profiles. In North-Eastern Europe, documented change is primarily associated with reductions in variable costs, including agricultural inputs (45%), labour (37%) and energy (34%), indicating a strong emphasis on efficiency gains linked to changes in agronomic management.

ASSESSING IMPACT (2023-2025) SOUTHERN EUROPE



Southern Europe, distribution of outcome progression across 50 participating farms. Bar charts show the country-level number (left) and Southern Europe-level percentage (upper$_1$ r2ight) of farms for which change was documented for each outcome indicator. Results are based on samples of 22 farms in Spain, 10 in Portugal, and 18 in Italy. Data source: dedicated OASIS surveys.

ASSESSING IMPACT (2023-2025)
ADVISORY OUTCOMES

In Southern Europe, reductions in input costs are also present (38%), but other cost-related indicators appear less frequently. Instead, economic outcomes are more dispersed across indicators related to diversification of activities, marketingrketing strategies, and product valorisation, each documented in a smaller share of farms. These patterns suggest that, within the scope of the advisory programme, economic change in North-Eastern Europe is more tightly coupled to cost efficiency, while in Southern Europe it reflects a broader range of farm-system and market-oriented strategies.

Environmental and biodiversity-related outcomes are present in both regions at moderate levels. In Southern Europe, soil carbon budget optimisation (26%) and soil erosion minimisation (24%) are the most frequently documented environmental indicators, accompanied by soil compaction minimisation (14%) and the maximisation of ecological networks (14%), as well as smaller shares of high nature value farming and minimal pollution indicators. In North-Eastern Europe, soil-related environmental outcomes show a comparable but slightly more concentrated profile, with soil compaction minimisation (24%), soil carbon budget optimisation (21%) and soil erosion minimisation (15%) accounting for most documented change, while ecological network development remains limited (6%). Overall, environmental outcomes in both regions are closely linked to soil condition and management, with landscape- and biodiversity-related indicators more visible in Southern Europe.

Socio-political and farm resilience outcomes remain marginal across both regions, consistent with the aggregated outcome profile. In Southern Europe, a limited number of farms show documented change in indicators such as an optimistic perspective on the farm's future (14%), self-consumption, advocacy and participation in networks (8-6%), while resilience-related indicators such as diversification and autonomy from inputs appear in around 10% of cases. In North-Eastern Europe, these dimensions are only rarely documented, typically in 2% of cases. Rather than indicating an absence of change, this pattern reflects the limited extent to which socio-political and resilience dimensions were explicitly addressed and documented within the advisory scope.

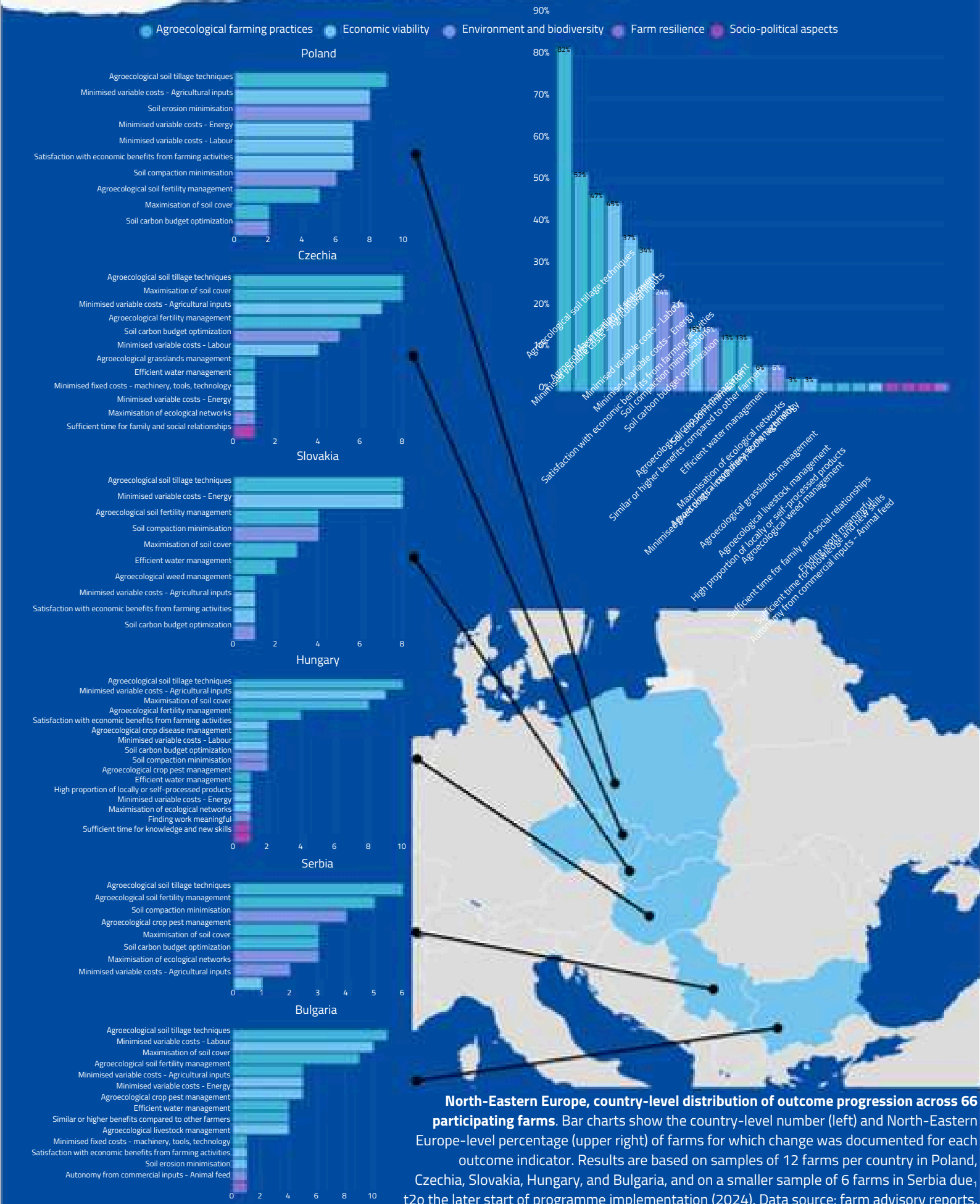
COMPARATIVE INTERPRETATION

Taken together, the aggregated results indicate that outcome progression during the programme period is widespread but unevenly distributed across dimensions and indicators. Observed change is most concentrated in agronomic practices and selected economic variables, while environmental, socio-political, and resilience- related outcomes emerge more gradually, reflecting both the scope of advisory engagement during the programme period and with the longer time horizons and broader systemic conditions generally required for change in these dimensions to become visible and documented.

At regional level, Southern Europe displays a more diversified outcome profile spanning multiple practices and system-level dimensions, while North-Eastern Europe shows a more concentrated pattern centred on field-related and efficiency-oriented economic outcomes. It is important to note that these regional differences reflect not only agronomic and contextual variation, but also differences in advisory focus and data collection approaches, which affect the scale, scope, and type of change that is most readily observed and documented. In Southern Europe, outcomes were assessed directly by advisors using the OASIS framework, and advisory work often focused on entire cropping systems or broader farm operations; this is likely to have contributed to a wider and more diversified set of documented outcome areas. In North-Eastern Europe, outcome scoring was derived ex post from annual farm performance assessment reports, and advisory work was more often oriented towards selected fields, resulting in a more concentrated outcome profile centred on agronomic and efficiency-related practices, while some outcome indicators may reflect broader effects beyond the immediate field focus. At the same time, despite these differences in advisory focus and data collection approaches, several outcome patterns recur across regions.

This convergence suggests that, even when outcomes are reached through different pathways and observed at different scales, similar areas of change tend to emerge, reinforcing the robustness of the aggregated findings and their relevance for understanding how regenerative agriculture translates into observable impact.

ASSESSING IMPACT (2023-2025) NORTH-EASTERN EUROPE



North-Eastern Europe, country-level distribution of outcome progression across 66 participating farms. Bar charts show the country-level number (left) and North-Eastern Europe-level percentage (upper right) of farms for which change was documented for each outcome indicator. Results are based on samples of 12 farms per country in Poland, Czechia, Slovakia, Hungary, and Bulgaria, and on a smaller sample of 6 farms in Serbia due to the later start of programme implementation (2024). Data source: farm advisory reports.

IDENTIFYING CONSTRAINTS (2023-2025) ADVISORY BARRIERS

Framing the barrier analysis: aggregated patterns and regional focus differences

While the preceding sections describe transition themes and observed outcomes, these processes unfolded within specific constraints, which are examined here. First of all, it is important to note that differences in data collection and advisory focus already resulted in some regional variation in outcome analysis, but this effect is even more pronounced for barriers. In South Europe, barriers identified through a specialised survey and whole-farm advisory processes favoured the articulation of systemic constraints, while in North-East Europe barriers emerging from the ex post analysis of farm reports more oriented towards a field-level advisory focus privileged the emergence of constraints more closely pertaining to the field dimension. As a result, while aggregated figures are presented for reference, this section places greater emphasis on the interpretation of regional profiles, allowing distinct barrier patterns to emerge.

Across the aggregated dataset, reported barriers are concentrated in agronomical and environmental domains. Agronomical constraints are led by soil and fertility constraints (46%), followed by technical knowledge gaps (35%), crop and rotation design issues (31%), and pest, weed, and disease pressure (30%). Environmental barriers are dominated by climatic constraints (40%) and water availability challenges (27%), alongside landscape limitations (20%) and biodiversity or ecological pressure (15%). Economic and organisational barriers appear with intermediate frequency, including investment costs (19%) and planning and management constraints (19%), while institutional barriers such as policy and regulatory constraints (17%) are less prominent in this view.

South Europe: whole-farm and system-level barriers

In South Europe, the barrier profile is more distinct, emphasising institutional, environmental, and economic constraints, consistent with a whole-farm advisory focus. Institutional barriers are particularly salient, with policy and regulatory barriers reported in 38% of farms, alongside social or cultural norms (13%), market access constraints and institutional advisory system limitations (both reported in 10% of farms). Environmental barriers are dominated by climatic constraints (46%). Economic barriers include market and price limitations (23%), investment costs (21%), input cost pressure (15%), and short-term financial risk (13%). Organisational barriers focus mainly on labour constraints (28%) and time constraints (15%). Agronomical field-level barriers are less centred on system design, with soil and fertility constraints (8%) and crop and rotation design issues (8%) reported less frequently than technical knowledge gaps (41%) and machinery or equipment constraints (26%).

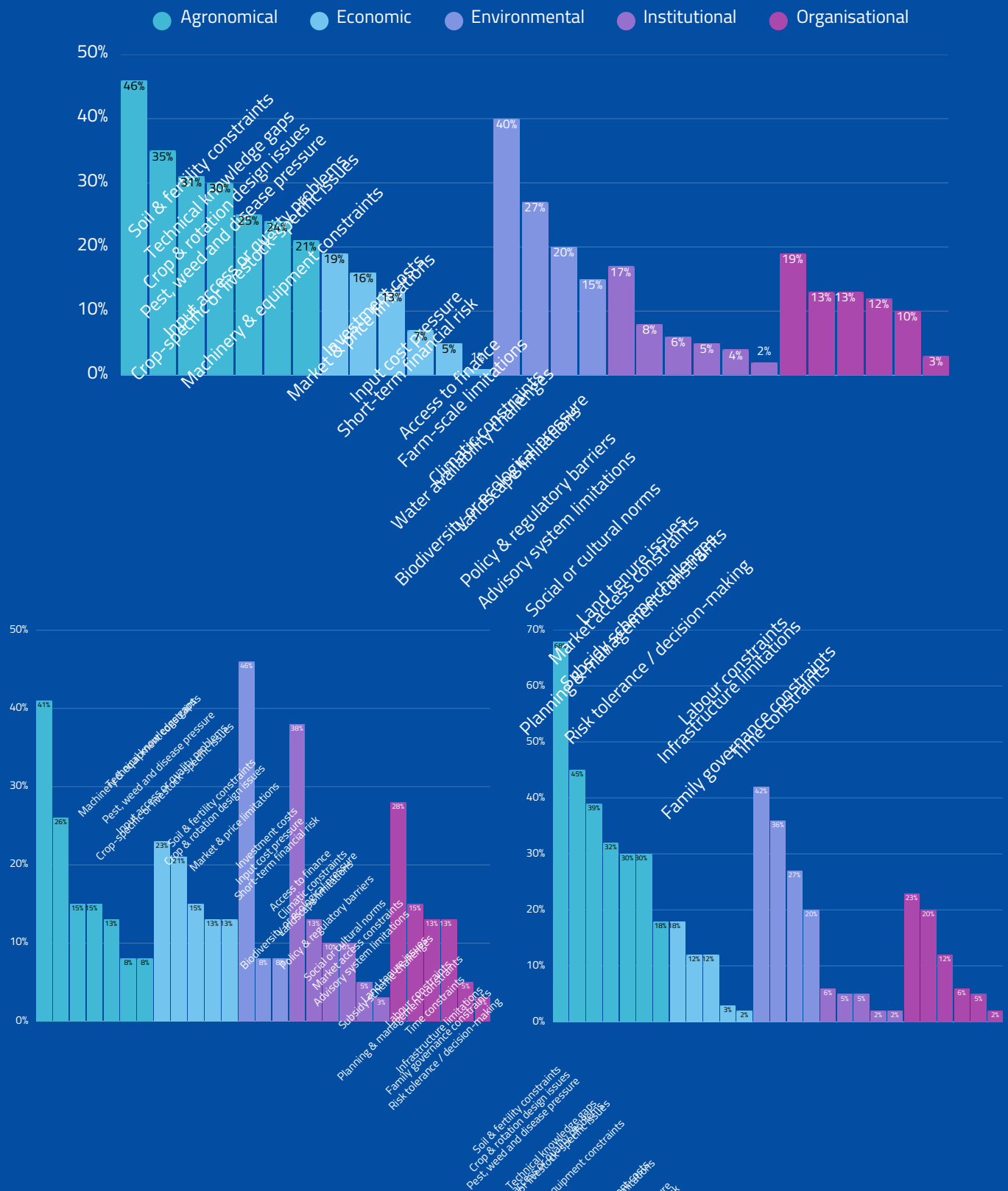
North-East Europe: field-level and technical barriers

In North-East Europe, barriers are dominated by agronomical and environmental constraints, reflecting a focus on field implementation. Agronomical barriers are led by soil and fertility constraints (68%), crop and rotation design issues (45%), pest, weed, and disease pressure (39%), and technical knowledge gaps (32%). Environmental barriers are distributed across water availability challenges (42%), climatic constraints (36%), landscape limitations (27%), and biodiversity or ecological pressure (20%). Organisational barriers relate mainly to planning and management constraints (23%) and risk tolerance or decision-making (20%), while economic barriers such as investment costs (18%) and market limitations (12%) are present but less dominant than in South Europe. Institutional barriers remain infrequently reported, including policy and regulatory barriers (5%).

A comparative reading shows that differences reflect both regional contexts and advisory focus

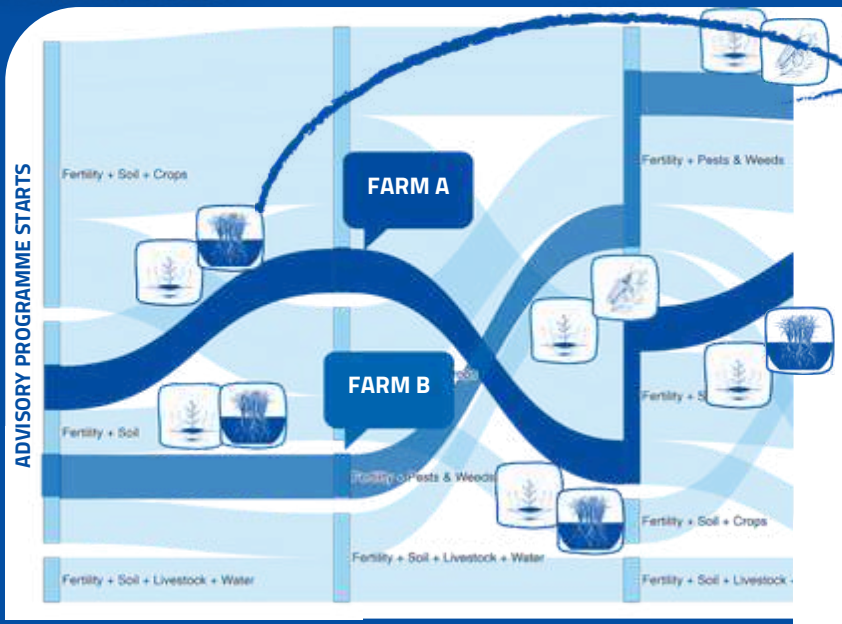
In South Europe, barriers tend to shape the overall room for manoeuvre of farms, particularly policy and regulatory barriers and labour constraints. In North-East Europe, barriers more often affect practice implementation, notably soil and fertility constraints and rotation design challenges. Institutional and policy-related barriers in North-East Europe are not necessarily less relevant but are less frequently articulated, as they operate upstream of farm-level decisions and influence which practices can be recommended, trialled, or scaled without being explicitly named in advisory narratives. Overall, the analysis confirms that barriers to the regenerative transition are multi-level and perspective-dependent, pointing to the need for coordinated action addressing policy and regulatory constraints, labour availability and organisational capacity, as well as technical knowledge gaps and field-level agronomic challenges. This concludes the aggregated and regional analysis and sets the stage for the country-level case studies discussed next.

IDENTIFYING CONSTRAINTS (2023-2025) ADVISORY BARRIERS



Distribution of reported barriers to the regenerative transition across aggregated (top), Southern European (bottom left), and North-Eastern European (bottom right) datasets (based on data from 105 participating farms, 2023-2025). The figure presents the relative prevalence of reported barriers across participating farms, structured by main barrier domains and sub-categories. Percentages indicate the share of farms reporting at least one barrier within each sub-category. The upper panel shows aggregated results across all participating regions, providing a reference overview of the most frequently reported barriers. The lower left panel focuses on South Europe, highlighting barriers identified through whole-farm advisory processes and reflecting system-level, institutional, environmental, and economic constraints. The lower right panel presents results for North-East Europe, where barriers emerge primarily from field-focused advisory processes, with a stronger emphasis on agronomical and technical implementation challenges.

READING COUNTRY-SPECIFIC CASE STUDIES: DIY INSTRUCTIONS



After presenting aggregated results and macro-regional patterns, this section zooms in to country- and farm-level dynamics.

Reading the transition pathways

- **Each flow represents a transition pathway**, i.e. a sequence of advisory visits for one farm, read from left to right, capturing a time-bound snapshot of how the distribution of advisory focus for that farm evolved within the scope of the programme, rather than marking the beginning, endpoint, or totality of its regenerative transition (here understood as a holistic, ongoing process).
- **Two farms (darker flows) are highlighted** for each country **as success stories** within the programme, typically highly motivated farmers that can often be considered adopters in their respective national contexts.
- **Each vertical bar corresponds to one advisory field visit** and reflects the dominant thematic emphasis of that visit relative to other types of advisory visits identified for that country. **Icons indicate the themes that most strongly characterise each visit** relative to other visit types; they do not represent all topics discussed during that visit.

Observed outcomes

- **Outcome spider charts** are presented alongside each pathway, and their correct interpretation requires reference to the Methodology, Outcomes and Learning from Complexity sections (the latter reflecting on trade-offs)
- Finally, although advisory engagements followed a comparable three-year timeframe across countries, **in Southern Europe** they more often centred on whole-farm reconfiguration, whereas **in North-Eastern Europe** on field-level change. These differences are reflected in structure, length and scope of the case studies that follow.

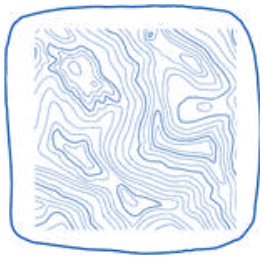
Advisory visits grouped by dominant transition themes


Soil cover & functional disturbance


Fertility & inputs

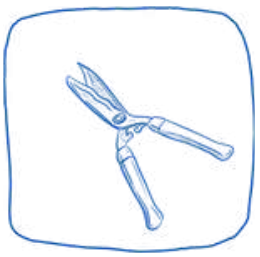

Crop diversity & rotations


Ecological pest & weed management


Water & hydrology


Livestock & grazing

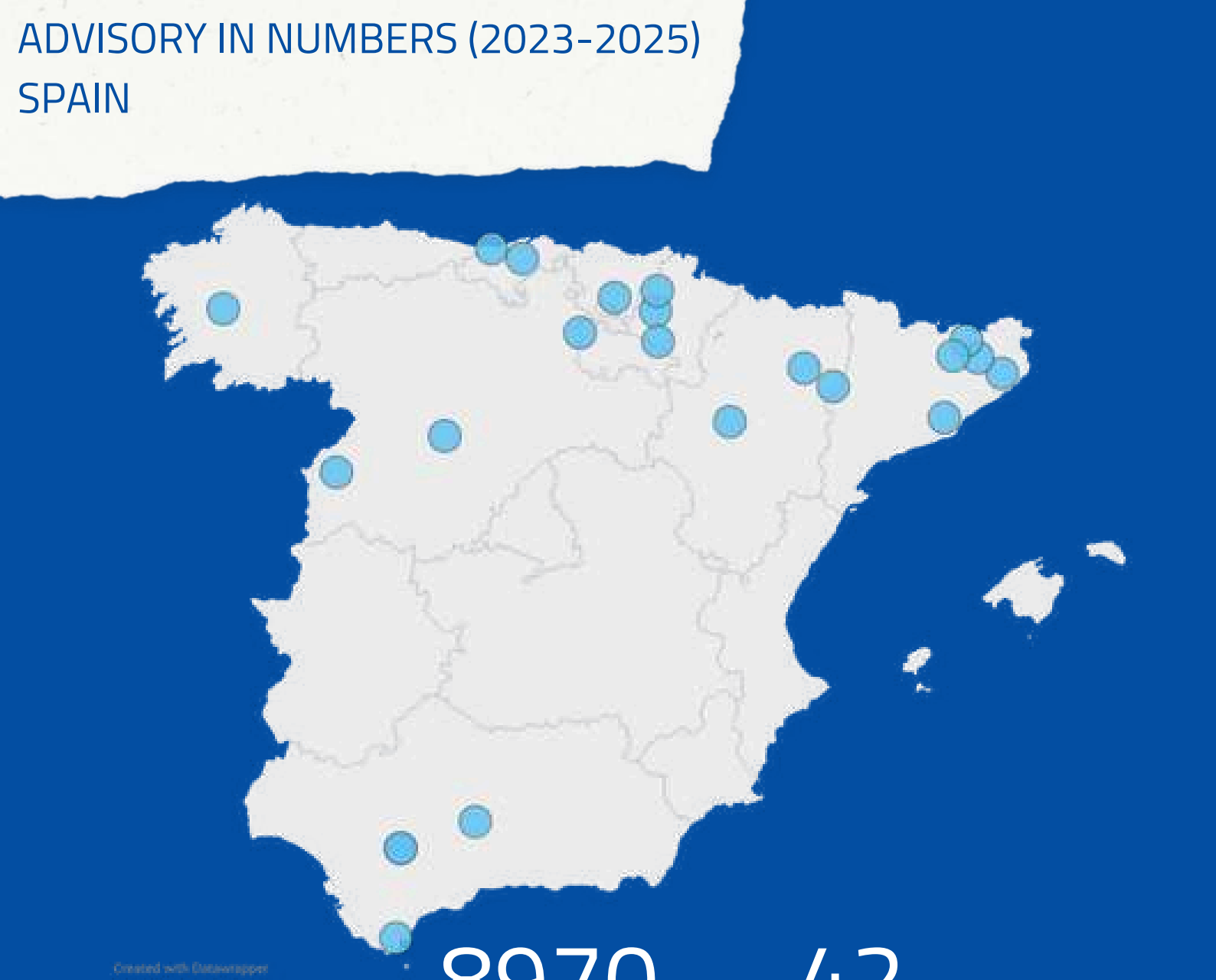

Agroforestry & habitat creation


Woody perennial management


Overall farm & socio-economic organization


Monitoring & digital technologies

ADVISORY IN NUMBERS (2023-2025) SPAIN



8970

21%

Higher average photosynthesis performance relative to regional baseline

97%

Of the agricultural area outperformed the regional baseline in photosynthesis

42

Hectares median farm size (ranging from 1 to 1200)

19%

Higher average soilcover performance relative to regionalbaseline

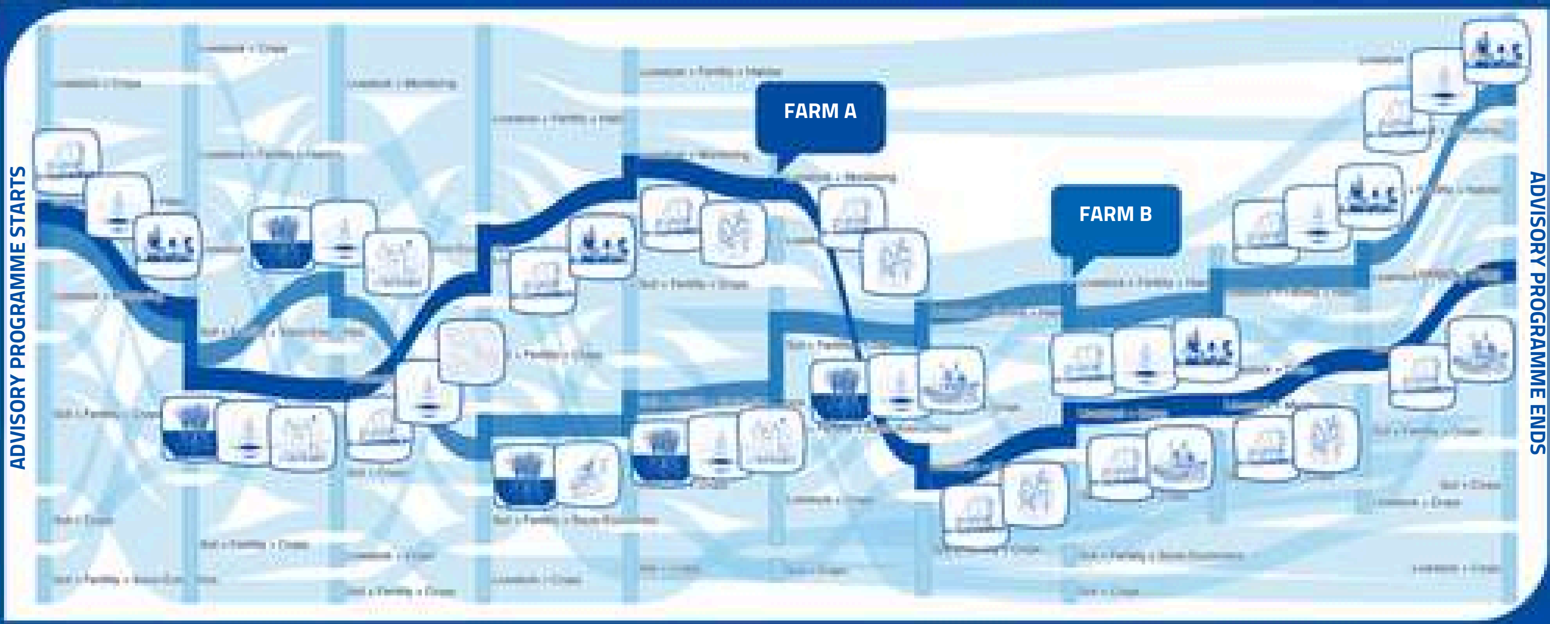
97%

Of the agricultural area outperformed the regional baseline in soil cover

67

Farmsenrolled between 2020-2025 (22 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

SUCCESS STORIES (2023-2025) TRANSITION PATHWAYS SPAIN



Spain, two farm success stories illustrated through transition pathways: flows tracing how 22 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

Northern Spain, mixed farming system taken on by a new generation of farmers returning to the land, integrating permanent pastures, woodland, fruit trees, horticultural production and on-farm hospitality.

At the beginning of the advisory engagement, discussions **centred on baseline assessment and nutrient planning** across horticultural areas, fruit trees and extensive pasture, including soil lab analyses. Fertility recommendations focused on maintaining high organic matter in the market garden through substantial inputs of animal chipped wood and manure, alongside complementary mineral and microbiological amendments. In parallel, the **first grazing season** began with the introduction of cattle managed under virtual fencing, marking the operational start of livestock integration.

Attention then shifted toward practical **soil-cover and monitoring** routines. Advice focused on the rapid processing and use of fresh green material as mulch, sometimes protected with additional covering to limit nutrient losses. Monitoring was framed as a management habit, with emphasis on observing livestock impacts in relation to weather events and wider ecosystem variables to inform later decisions.

[Continues below, left column]

CASE STUDY FARM B

Southern Spain, family farming system that underwent a generational transition, combining perennial production with cereals, on-farm diversification activities and an emerging integration of grazing within tree crops.

At the beginning of the advisory engagement, attention focused on **water availability, rebuilding soil fertility, stabilising high pest pressure and tree mortality**. Discussions centred on the continuous use of locally sourced biofertilisers, the definition of a holistic management plan and the improvement of spontaneous ground cover to protect soils, increase soil organic carbon and limit pest pressure. As an initial step toward managing ground cover through animals, an agreement was established with a neighbouring farmer to allow horses to graze selected areas of the farm.

As the pathway developed, the trajectory began to shift toward a gradual consideration of livestock as part of the system, alongside corrective actions and baseline monitoring. Soil analyses highlighted nutrient deficiencies linked to an abrupt withdrawal from chemical fertilisers and herbicides. Advisory guidance therefore reoriented management toward a **gradual reduction of synthetic inputs** over several years, supported by compost, manure

[Continues below, right column]

SUCCESS STORIES (2023-2025) TRANSITION PATHWAYS SPAIN

[Farm A, continued from above, left column]

Fertility management in the horticultural area continued to prioritise ramial chipped wood, enabled by on-farm sourcing through woodland management.

As the system expanded, **water infrastructure and operational coordination** became more explicit. A distribution network was installed to supply drinking water, irrigation for trees and horticultural plots, and household needs. At the same time, external agreements supported a steady inflow of woody material. Advisory notes highlighted constraints related to grazing management, particularly the risk of soil compaction on soils shaped by previous conventional soil and fertility management practices.

Recommendations addressed mowing and staged **nutrient applications**, with attention to timing, soil conditions and ongoing macro- and micronutrient needs. Animal management discussions detailed selection criteria, breeding windows and guidance on parcel subdivision using corridor-based grazing. Where pasture condition declined, restoring vegetative vigour became a priority, supported by visual monitoring tools.

As advisory activity progressed, attention became increasingly structured around **monitoring and genetics in both cattle and sheep**. This phase included repeated animal assessments using defined parameters, systematic record keeping and photographic documentation, alongside discussions on reproduction, uneven animal performance, forage quality, and the limits of virtual fencing, water access and shade availability.

The pathway concludes with a more forward-looking phase, linking pasture renovation to forage design and the establishment of herbaceous perennial associations, while maintaining a clear focus on animal monitoring and genetic selection for pasture- and context-adapted livestock, opening opportunities for breeding stock commercialisation. In this configuration, the farm consolidates itself as a coherent regenerative system and an **emerging reference point for younger generations** returning to inhabit, work and revitalise rural landscapes.

[Continues below, left column]

[Farm B, continued from above, right column]

and vermicompost, alongside tighter control of ground cover to reduce competition for limited soil resources. Market constraints remained evident, including unsold citrus volumes and limited direct access to buyers.

Subsequently, advisory activity consolidated around **soil cover, compost application and the integration of liquid biofertilisers** into the irrigation system. The pathway prioritised retaining beneficial spontaneous species that protected the soil without competing with crops, while diversification options were explored through drought-adapted plant varieties with potential commercial value. The **identification of spontaneous cover species** was used to better understand soil condition and soil needs.

In later stages, advisory discussions expanded to **pasture establishment, cover management and functional biodiversity**. Pasture mixtures were defined using locally adapted grasses and legumes, ecological infrastructures such as nest boxes and habitat features were introduced to support pollinators and insectivorous fauna. Advisory support also continued around **market outreach** and refinement of soil and cover practices.

As the pathway progressed, repeated soil sampling in on mulching, compost enrichment with clays and legume-rich contrasting through recommendations **biodiversity infrastructures** were reported as effective in reducing pest pressure. reseeding. Water management evolved toward sub-surface irrigation systems, while The pathway concludes with the farm **reaching an advanced stage of regenerative organisation**. Rotational grazing is integrated as a regular management tool, habitat and functional biodiversity infrastructures are established, and soil improvement is maintained through mulching, compost application and continued soil monitoring, reflecting a stabilisation of practices focused on soil function, biodiversity support, integrated land management and an emerging orientation toward improved market engagement.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS SPAIN

[Farm A, continued from above, left column]

OUTCOMES FARM A

Across the assessed indicators, **fertility management** shifted toward a more consolidated approach, characterised by the use of multiple strategies and minimal reliance on synthetic fertilisers. **Grassland management** evolved from moderate adoption toward a more structured application of regenerative grazing principles, with improvements linked to continued attention to grazing intensity and timing.

Water management practices expanded from limited and occasional use toward more systematic application across the farm, supported by the installation of additional drinking-water points that enabled more flexible livestock distribution and grazing management. **Agroforestry adoption** increased with the progressive transformation of woodland into silvopastoral systems. Levels of **on-farm self-consumption** rose markedly, reflecting stronger and integration between production, processing consumption practices.

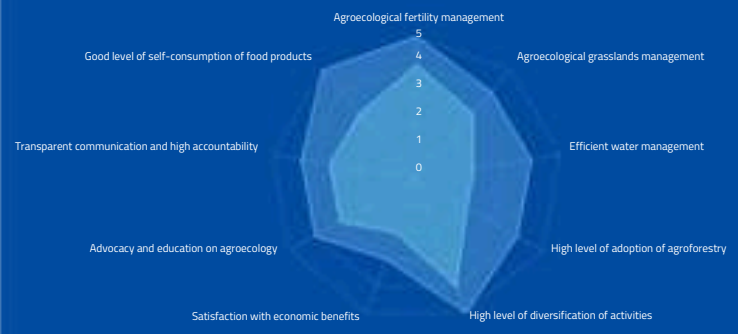
Economic and socio-political outcomes also showed more positive evolution. **Farm activities** became diversified, with non-farming components contributing a substantial share of overall activity and complementing agricultural production. **Satisfaction with economic performance** increased, while **engagement in education, awareness-raising and transparent communication** became more regular through on-farm activities and exchanges, positioning the farm as a reference point for emerging ways of inhabiting and managing the landscape.

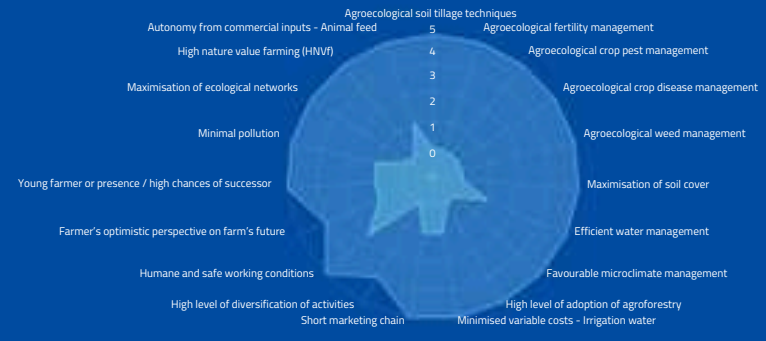
[Farm B, continued from above, right column]

OUTCOMES FARM B

This outcome profile reflects a **generational transition within a family-run farm**, in which the shift from an earlier management model to a new generation's approach coincided with a broad transition from intensive, chemically dependent strategies toward a model characterised by near-elimination of synthetic inputs and stronger reliance on ecosystem-based solutions. **Soil management** progressed toward no-till systems, while **soil cover** shifted from seasonal to near-continuous protection and **fertility management** moved away from synthetic fertilisers toward integrated use of biofertilisers and organic amendments.

Crop protection outcomes show a parallel reorientation away from routine chemical control. **Pest, disease and weed management** indicators progressed toward systems based on ecological regulation, **diversified cover and habitat infrastructures** that support functional biodiversity, alongside reduced reliance on herbicides, insecticides and fungicides. **Water-related** outcomes advanced toward widespread adoption of conservation practices, and **microclimate and agroforestry** outcomes moved from absent or marginal practices toward frequent application across the farm. **Economic and social indicators** also shifted, including reduced irrigation-water costs, a move toward direct sales and shorter marketing chains, increased diversification of activities, improved working conditions and confidence in the farm's future, together with stronger ecological networks, reduced pollution and higher forage autonomy.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified and scored by the respective advisor drawing on repeated farm visits and advisory conversations.

ADVISORY IN NUMBERS (2023-2025) ITALY

30

Farmsenrolled between 2020-2025 (21 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

1545

8%

Higher average photosynthesis performance relative to regional baseline

72%

Of the agricultural area outperformed the regional baseline in photosynthesis

15

Hectares median farm size (ranging from 1 to 470)

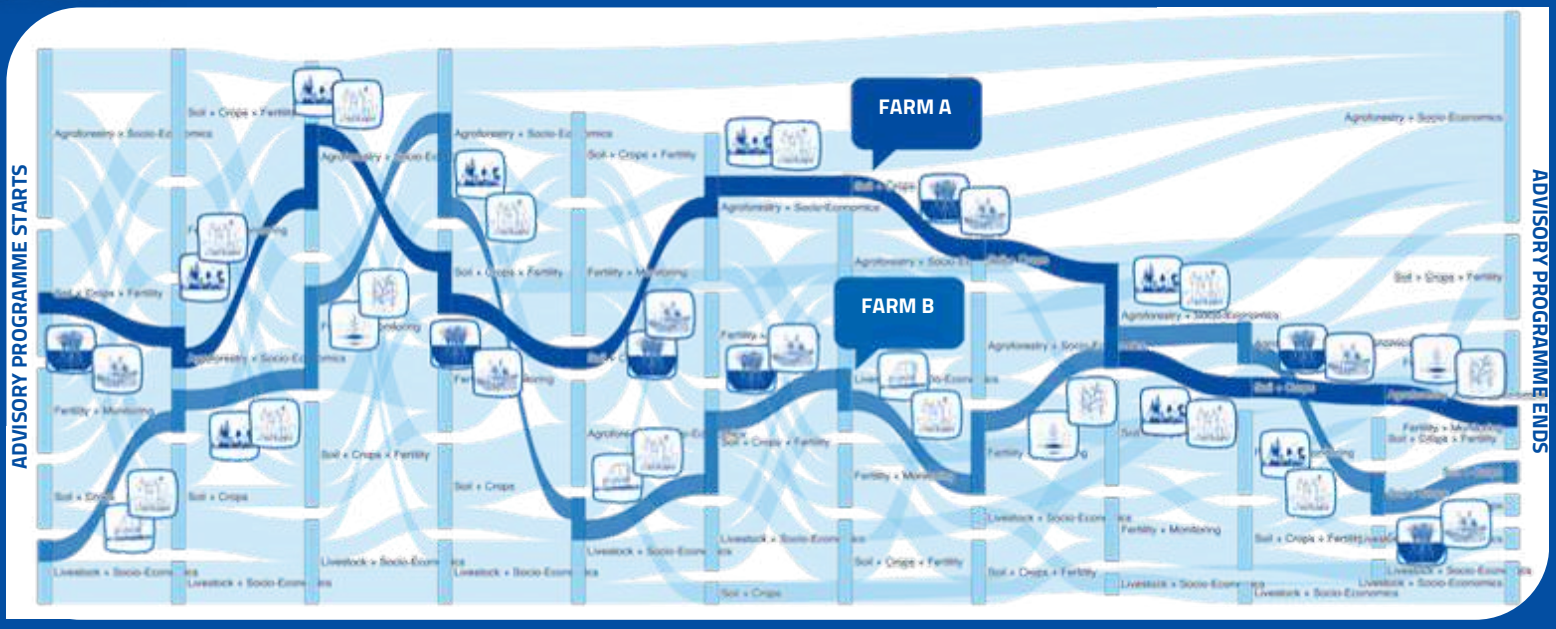
6.5%

Higher average soilcover performance relative to regionalbaseline

67%

Of the agricultural area outperformed the regional baseline in soil cover

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS ITALY



Italy, two farm success stories illustrated through transition pathways: flows tracing how 21 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

Southern Italy, highly diversified farm, comparatively large by territorial standards, reflecting a mixed farming system with broad-acre, fruit, livestock, horticultural and hospitality components.

At the beginning of the advisory engagement, the farm's pathway is framed around **soil management, cropping systems and fertility**. Advisory discussions focused on structuring the vegetable production system through raised beds, optimisation of planting layouts and organisation of crop sequences across open-field and protected cultivation. In parallel, fertility management was addressed through the completion of a new barn with deep litter bedding linked to compost production. Crop diversity was already high, while rational grazing and agroforestry were identified as strategic components to be developed alongside crop production.

The pathway then shifted toward system integration and socio-economic organisation, where advisory activity accompanied the establishment of **agroforestry strips and mixed orchards**, alongside the start of grazing activities made possible by the relocation of livestock to the new barn, and supported by planning around multifunctional land use and on-farm diversification.

[Continues below, left column]

CASE STUDY FARM B

Northern Italy, medium-sized farm combining arable cropping, forestry, hospitality and pasture, with an emerging interest in integrating silvicultural components into broad-acre systems through agroforestry.

At the beginning of the advisory engagement, discussions focused primarily on **livestock and farm organisation**. Advisory inputs examined how animal enterprises could contribute to soil fertility and the use of weeds, pastures and crop residues within existing forestry and pasture areas. Organisational constraints as ownership structure and land-tenure uncertainty were identified, while field observations highlighted under-used open-field areas in relation to soil and fertility management.

Crop plans were reviewed, and options such as **mowing and grazing tests** on oats and mustard were discussed, together with **no-till sowing and potential strip-till** machinery. The use of slow-release organic fertilisers and under-sowing with white clover was considered at a planning level. In parallel, discussions explored the potential role of pigs, poultry, vegetables and mushroom systems, alongside water-management options including aquaculture, localised irrigation and water flow linked to poplar hedges.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS ITALY

[Farm A, continued from above, left column]

Compost maturation progressed alongside **grazing management**, and advisory discussions supported decisions on species selection, planting distances and the multifunctional role of vegetated strips for animal welfare, fodder and soil protection. During this phase, the farm also strengthened its orientation toward **on-farm processing and direct sales**, while monitoring tools supported management decisions.

Subsequently, the pathway returned to a renewed focus on soil management, cropping practices and fertility, marking a consolidation at field level. Advisory attention focused on **minimum tillage, systematic use of cover crops**, raised-bed preparation with chipped wood materials, and refinement of vegetable rotations. Intercropping trials were introduced, aimed at weed suppression and improved soil moisture retention, while low-impact pest and weed management strategies were jointly defined and applied. Rational grazing and agroforestry continued in parallel, maintaining functional integration with crop production.

In the later stages, advisory discussions increasingly combined field-level soil and crop management with a stronger emphasis on fertility assessment and monitoring. **Monitoring activities expanded** to include multi-year analysis of vegetable yields, soil sampling and laboratory analyses, and detailed planning of transplanting and sowing calendars. Fertility management became increasingly structured, with explicit quantitative targets for organic matter accumulation and compost application, alongside identification of nutrient imbalances, targeted pest and disease management interventions, and crop-growth and climate-adapted irrigation schedules.

The pathway concludes with advisory attention grounded in the continued interaction between soil management, fertility strategies and compost monitoring activities, alongside the organisation of numerous on-farm events that supported knowledge exchange and reinforced **the farm's role as a catalyst for networking** and collective learning within its surrounding bioregion.

[Continues below, left column]

[Farm B, continued from above, right column]

Subsequent advisory sessions addressed **development of agroforestry systems** in greater detail, focusing on row management operations, options for new poplar plantings and the timing of interventions such as plane-tree cutting and stump inoculation. Farm-level planning expanded to **socio-economic themes**, including agritourism priorities, thermocomposting for heat and compost production, processing facilities, accommodation extensions and direct sales, framed through relationship building, events and educational activities.

Attention then shifted towards **fertility management and monitoring**. Advisory content outlined the design of a pilot composting system based on a modular static configuration using woody biomass, manure and digestate, with the reuse of heat and gases in greenhouse and farm infrastructure. Monitoring of key process variables and phased implementation were planned, while grant-related planning focused on structuring a dedicated funding application explicitly aimed at financing the implementation of this system.

Later discussions returned to **soil and crop management, with grazing and agroforestry** continuing as recurring operational elements. Advisory attention focused on no-till garden practices, wood-chip mulching, cover crops, crop selection and pest risks, alongside consideration of poultry infrastructure and mobile housing. Agroforestry planning remained active through the design of hedgerows, poplar windbreaks and tree layouts.

In the final phase, advisory work defined targeted rotations and interseeding strategies to reduce weed pressure and support fertility recovery under organic management, and discussed the integration of horses and donkeys to apply rotational grazing in alley-cropping strips in order to manage spontaneous vegetation and prevent seed formation. Overall, the farm's ecosystem design efforts, supported by advisory input, framed a more **integrated approach to the North Italian farmscape**, positioning it as a virtuous example of how broad-acre agriculture can be embedded within tree-crop systems delivering high ecological value.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS ITALY

[Farm A, continued from above, left column]

OUTCOMES FARM A

Over the programme period, **soil management** outcomes progressed across several dimensions. Tillage practices shifted from deeper mechanical operations toward consistently reduced and shallow cultivation, while **soil cover** increased from a high but discontinuous level to near-continuous protection for most of the year. **Pest management** evolved from reliance on commercially available bio-based treatments toward mixed approaches including the introduction of vegetated strips for pest deterrence, while **disease management** moved toward more integrated systems combining soil management, crop associations and biological control agents.

Grassland management advanced from limited application to widespread adoption, with rotational grazing practices and adequate recovery periods becoming established across most of the land. **Agroforestry**, initially absent, was introduced, marking an initial stage of structural diversification. These shifts are reflected in broader environmental and economic outcomes. **Soil carbon management** progressed toward conservation tillage, frequent compost and manure use, regular cover crops and the presence of trees. **Ecological networks** expanded beyond marginal areas, while **variable input costs** declined further from already below-average levels. In parallel, the farm's involvement in **educational and awareness activities** increased from occasional participation to a regular engagement, becoming a reference point for other farmers in the area.

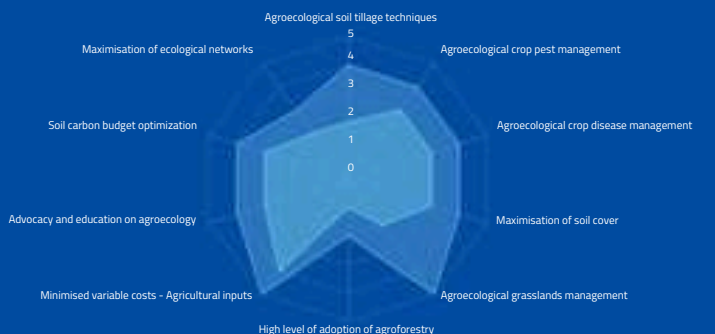
[Farm B, continued from above, right column]

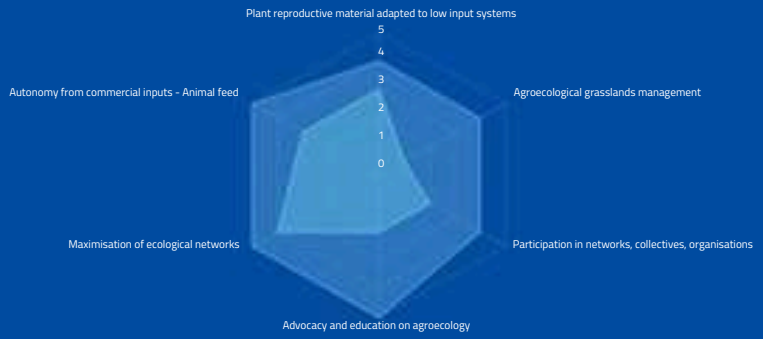
OUTCOMES FARM B

Across the assessed indicators, changes are visible across several domains over the programme period. The use of **plant reproductive material** shifted from a mid-range situation, where a large share depended on external inputs, to a configuration with a smaller proportion of input-demanding material. This reflects the documented adoption of crop populations and plant material suited to very low external inputs and limited irrigation conditions.

Grassland management evolved from minimal structuring to a high level of organisation. Management moved away from fixed or semi-fixed housing towards strip grazing on arable land, using grazing to valorise crop residues and spontaneous vegetation. At the same time, **autonomy from commercial animal feed** increased, with forage self-sufficiency rising to very high levels and a reduction in purchased hay inputs.

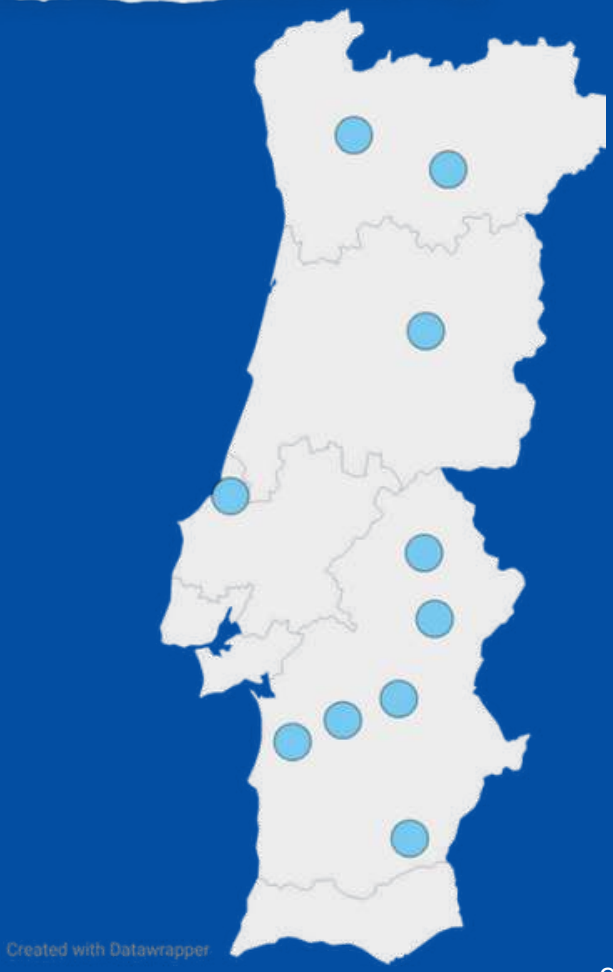
In socio-political dimensions, **participation in networks** progressed from weak involvement to more stable and continuous engagement over time. The farm became active in multiple initiatives linked to rural development, seed valorisation, complex forestry systems advocacy, while **educational and awareness activities** developed into a consolidated programme supported by collaborations with regional bodies and independent organisations. Environmental outcomes indicate a further expansion of **ecological networks** through additional poplar plantings integrated into existing hedgerows and silvoarable systems.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified and scored by the respective advisor drawing on repeated farm visits and advisory conversations.

ADVISORY IN NUMBERS (2023-2025) PORTUGAL



15

Farmsenrolled between 2020-2025 (10 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

3365

14%

Higher average photosynthesis performance relative to regional baseline

100%

Of the agricultural area outperformed the regional baseline in photosynthesis

95 Hectares median farm size

15%

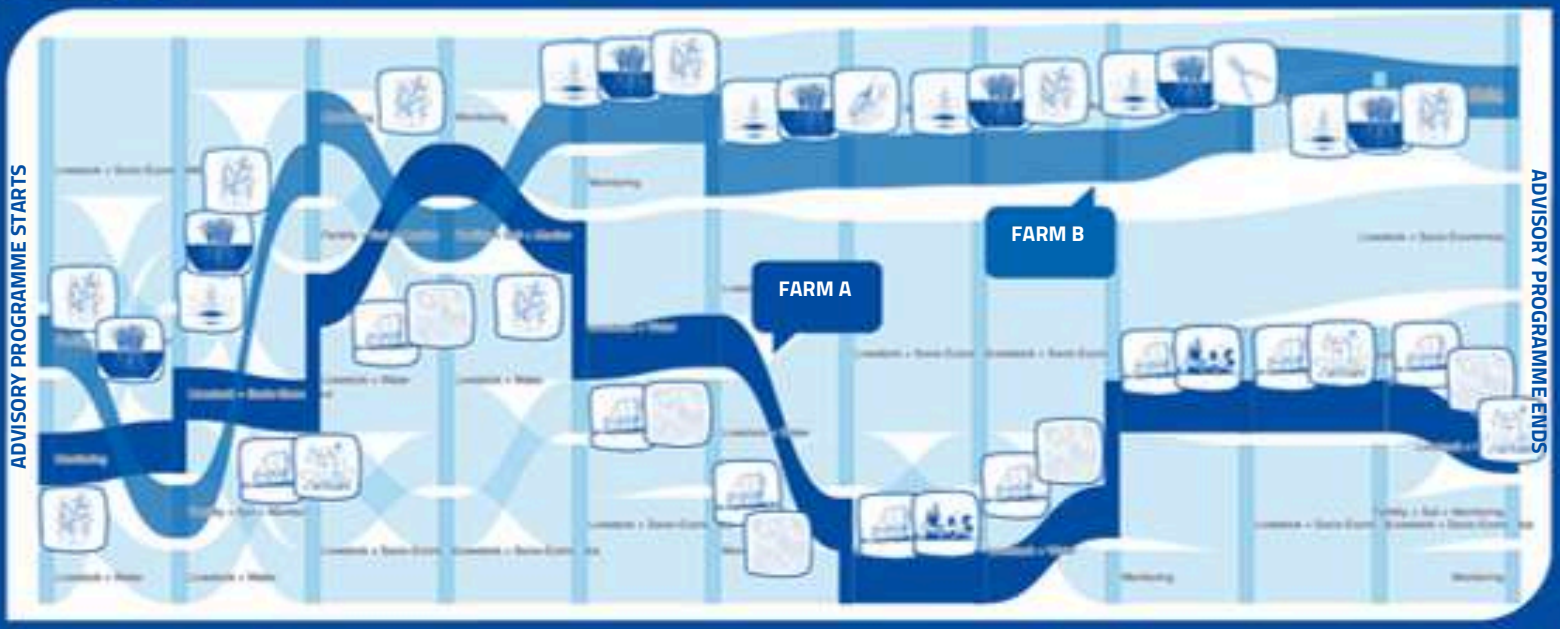
Higher average soil cover performance relative to

regional baseline

100%

Of the agricultural area outperformed the regional baseline in soil cover

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS PORTUGAL



Portugal, two farm success stories illustrated through transition pathways: flows tracing how 10 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

Extensive pasture-based livestock farm in a montado landscape, combining large-scale grazing areas with integrated water, grazing infrastructure, and hospitality facilities.

At the beginning of the advisory engagement, discussions centred on **establishing a monitoring baseline and clarifying priorities** for land and herd management. A structured field assessment was carried out using transects, soil cover and plant composition recording, infiltration tests, spade evaluations and penetrometer readings, alongside composite soil sampling and site photography. This monitoring work was positioned as a reference point to guide subsequent decisions on soil function and grazing impact.

Attention then shifted toward calf condition and readiness for sale, with livestock sales discussed as both a concrete market opportunity and a practical lever to reduce pressure on pastures while supporting overall farm liquidity. **Rotational grazing** was framed as a core requirement for balancing pasture recovery with herd needs, while advisory discussions linked **fence and dam restoration** to more effective control of grazing pressure and water access and availability.

[Continues below, left column]

CASE STUDY FARM B

Hillside vineyard farm focused on quality wine production, characterised by steep slopes, non-irrigated plots and an ongoing transition toward biologically managed management.

At the beginning of the advisory engagement, priorities focused on establishing a **baseline for soil condition, vine performance and key management constraints**. The vineyards were already managed without tillage or herbicides, relying on native spontaneous cover to limit erosion on steep slopes. Advisory discussions centred on strengthening soil cover through adapted seed mixtures, clarifying erosion risks linked to compaction and stoniness, and building practical capacity in cover-crop and weed-control machinery use.

Limiting factors were identified, including low soil fertility and organic matter, acidic pH, labour constraints and the absence of livestock or grazing infrastructure to support cover management. As the pathway developed, attention focused on observation-based management and skill building. Advisory activity supported vineyard inspections focused on pruning, vigour and spontaneous ground cover, alongside **practical training** in simple monitoring tools such as refractometers and soil profile observation.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS PORTUGAL

[Farm A, continued from above, left column]

As planning developed, advisory activity increasingly emphasised **water lines, ponds and vegetation as functional system components**. Priorities included restoring natural watercourses through debris removal and riparian vegetation recovery to reduce erosion and improve water quality, alongside planting around water bodies to support filtration. Agroforestry was framed as a longer-term ecological and productive strategy, with initial implementation acknowledged and expansion identified as a priority for resilience and diversification.

A subsequent phase focused on **grazing planning alongside pivot irrigation management**, combining pasture allocation with practical calculations and herd streamlining. Paddocks were selected based on dry matter availability, non-productive animals were identified for removal, and grazing areas were adjusted to improve utilisation within worker capacity. In the pivot area, the first cover crop was scheduled, irrigation refined through appropriate watering and application speed, and fencing options assessed to limit wild boar damage.

As discussions progressed, the focus became more structured around **data routines and operational coordination**, explicitly shaped by labour availability and the need to simplify day-to-day management. Record-keeping was clarified for cow performance and fertility, including ultrasound scheduling, calving-interval tracking and criteria guiding culling and breeding, alongside the adoption of a different breed to reduce labour demands, improve herd efficiency and work towards the selection of more pasture-adapted genetics.

The pathway concludes with forward planning linking grazing calendars, forage availability, tourism operations and continued monitoring across livestock and land. Advisory attention centres on refining rotation frequency, aligning handling interventions with paddock proximity and maintaining supplementation ahead of calving to sustain body condition, while an updated agroforestry layout supports improved shade distribution and animal flow, making this a **leading project for showcasing regeneration of the montado ecosystem**.

[Continues below, left column]

[Farm B, continued from above, right column]

Pest and disease scouting was integrated into these visits, with spray planning guided by **field observations** rather than fixed calendars, and monitoring framed as a recurring decision-support routine.

A subsequent phase focused on **cover management and nutrient diagnosis**. Cover crops were allowed to flower and set seed before roller-crimping to preserve surface protection through dry periods. Targeted soil sampling across contrasting vineyard plots informed future amendments, complemented by sap analyses to guide subsequent foliar nutrition decisions, emphasising the importance of plot-specific diagnostic work.

As advisory work progressed, **fertility and plant health strategies** became more operational. Guidance focused on correcting mineral imbalances through limestone applications, defining foliar nutrient mixes based on sap analysis, and initiating on-farm biostimulant production using local materials. Compaction constraints and mulch options were addressed, leading to the selection of sheep wool as a surface mulch to protect soil structure, suppress weeds and contribute nutrients as it decomposed.

As time progressed, increasing attention was given to **beneficial soil microbiology**, through the establishment of a dedicated on-farm system designed to multiply native microbial communities, alongside the planning of microbial extract applications and the integration of pruned biomass into fertility programmes. Disease management was increasingly framed around nutritional balance and preventive practices, including plant extracts and careful pruning to limit infection risk in older vines.

The pathway concludes with a phase of consolidation that brings together seasonal awareness, diagnostic capacity and longer-term orientation, while framing the steps required to initiate organic certification. Together, these elements reflect a **journey aimed at regenerating a demanding hillside landscape**, while enhancing the value of the territory and sustaining the production high-quality wines.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS PORTUGAL

[Farm A, continued from above, left column]

OUTCOMES FARM A

Across the outcome profile, **soil management** moved away from periodic deep cultivation toward a no-till approach supported by shared direct-seeding capacity, alongside a shift from monocultures toward more diverse seed mixtures. **Fertility management** transitioned from reliance on synthetic inputs to an integrated set of agroecological strategies, including composting of manure, cover cropping, permanent ground cover and seasonal management of animal impact. These changes are described in terms of stronger soil protection and a more continuous living or mulched cover through most of the year.

Livestock-related outcomes indicate a move toward higher welfare standards and more fully agroecological herd management, characterised by adaptive grazing, pasture-based feeding and preventive routines that support animal comfort and predictable handling. **Water management** progressed from limited implementation to more consistent conservation practices, described through rotational grazing adapted to topography and season, rest periods for regrowth and increased integration of shrubs and trees in grazing areas. In parallel, **agroforestry adoption** increased from marginal use to more established integration across the farm, while stress levels decreased markedly, reflecting a more positive working environment.

Environmental outcomes point to reduced erosion pressure, with fewer signs of active degradation across the farm landscape, following the reorganisation of grazing management.

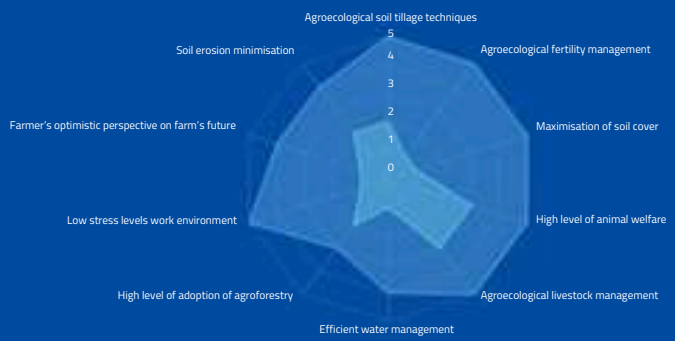
[Farm B, continued from above, right column]

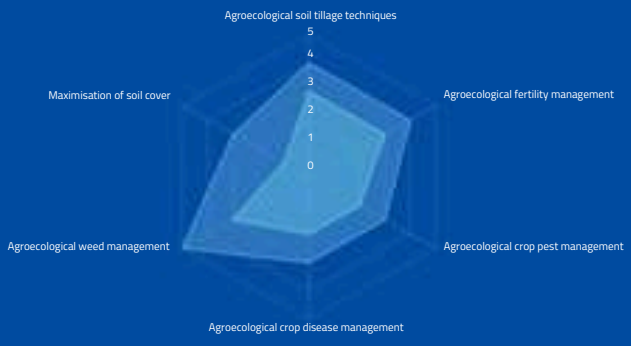
OUTCOMES FARM B

Observed outcomes describe a progression built on stable foundations, oriented toward strengthening the agronomical dimension of vineyard management. **Soil tillage** practices evolved toward consistently reduced disturbance, supported by sustained surface protection and expanded use of cover crops. **Soil cover** became more continuous over the year, limiting exposure during erosion-prone periods on steep slopes and contributing to improved surface stability and protection of soil structure.

Fertility management moved from moderate adoption to a more established and coordinated use of biologically oriented strategies, with declining reliance on synthetic inputs and increased attention to nutrient balance, soil biology and organic matter dynamics. **Weed management** outcomes reflect a reduction in mechanical intervention, increasingly supported by continuous ground cover and seasonal grazing, resulting in lower overall disturbance and more stable ground conditions.

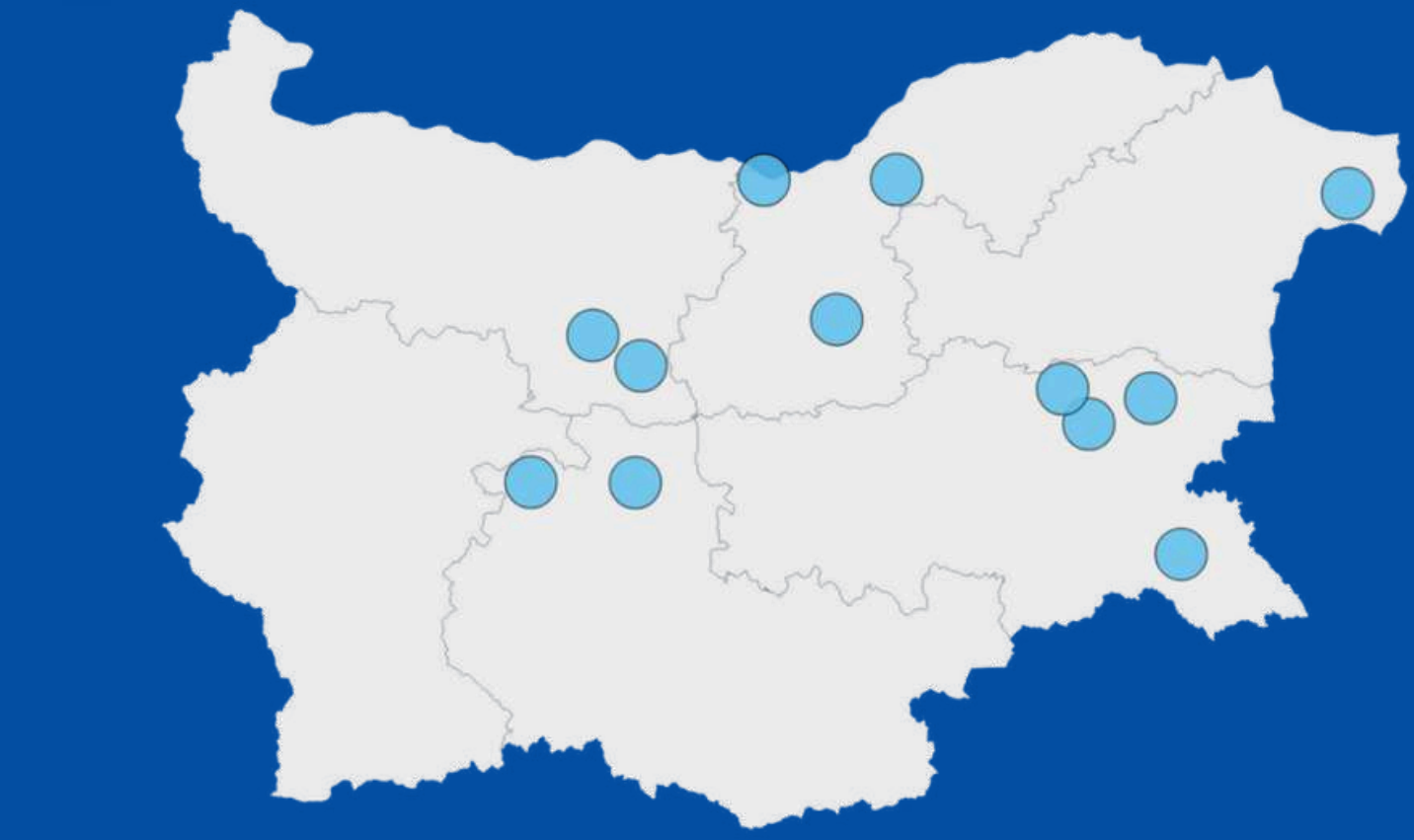
Crop health outcomes indicate a transition toward biologically based pest and disease management. Greater emphasis on plant nutritional status and observation-based diagnostics reduced reliance on broad control measures, supporting a more preventive and selective approach. Together, outcomes reflect a shift toward a more coherent, low-disturbance and system-oriented management profile, aligned with the farm's orientation toward the valorisation of a demanding hillside viticultural landscape.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified and scored by the respective advisor drawing on repeated farm visits and advisory conversations.

ADVISORY IN NUMBERS (2023-2025) BULGARIA



12804335 Hectares managed by enrolled farmers in total

Hectares median farm size (ranging from 4 to 2300)

91% 91% Farmers reduced/abandoned deep tillage

18

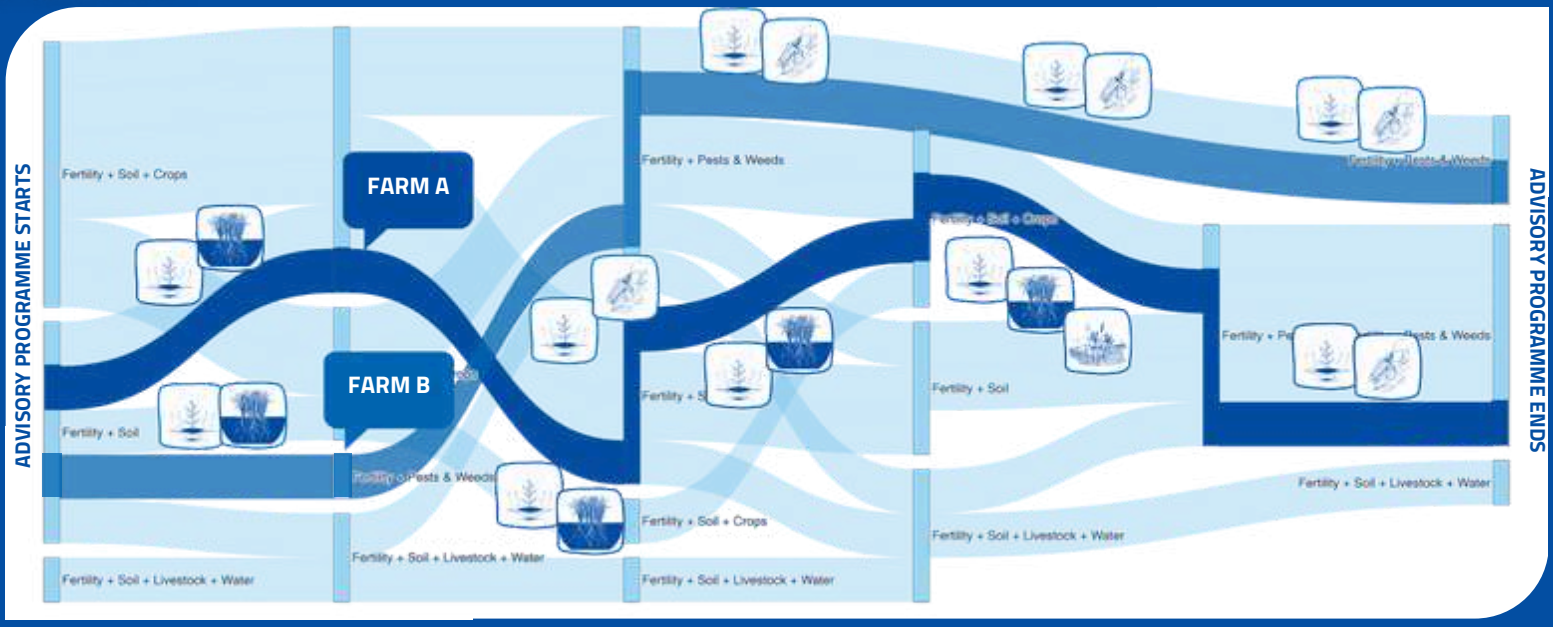
Farmsenrolled between 2020-2025 (12 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

Farmers reduced the use of nitrogen mineralfertilizers

91% 66% Farmers reduced the use of chemical phytosanitary products

Farmers improved their soil carbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS BULGARIA



Bulgaria, two farm success stories illustrated through transition pathways: flows tracing how 12 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the outset of the advisory period, this farm was operating under dry and windy conditions, with **soil protection identified as a primary concern**. Management centred on establishing and maintaining soil cover through cover crops, high residue retention and direct seeding, explicitly framed as a way to limit wind erosion. Crop rotations already included multiple crops and cover crops, while fertility management focused on reducing inputs and preparing for the introduction of compost teas and biological amendments. **Biodiversity actions** were to selective, including the installation of structures support predatory birds.

As the transition progressed, **soil cover** and **the avoidance of mechanical disturbance** remained stable foundations of the system. Different cover-crop strategies were tested to adapt to low rainfall, while attention increasingly shifted toward **fertility and inputs**. The farm experimented with mineral and biological balancing, reduced fertiliser rates and on-farm preparations aimed at improving soil biology. Periods of severe drought constrained cover establishment and reinforced the focus on water holding capacity, erosion prevention and keeping soils continuously protected.

[Continues below, left column]

CASE STUDY FARM B

At the start of the advisory engagement, this farm was already operating under no-till, with soil protection ensured through crop residues and cover crops. Early management focused on **maintaining this baseline while experimenting with biological inputs, compost extracts and vermicompost-based preparations**, and initial reductions in mineral fertilisation. Crop rotations were relatively simple in the main fields, complemented by additional diversity on smaller plots dedicated to producing cover-crop seed. The overall direction was to improve agronomic performance while progressively reducing reliance on synthetic inputs.

As the pathway developed, **fertility management became the central focus** of the transition, closely linked to plant health and pest and weed pressure. The farm invested in composting, compost extracts and on-farm preparations, refining recipes, application timing and diagnostic approaches. In parallel, **pesticide use was progressively reduced** and replaced with biological inputs and extracts used within an integrated strategy to support crop health. Trials were carried out to substitute mineral fertilisers with biological inputs, and some crops were managed primarily with compost extracts and biostimulants.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS BULGARIA

[Farm A, continued from above, left column]

In the later phase, advisory attention increasingly concentrated on fertility and input management, while earlier soil-cover practices remained in place. Alongside this consolidation, crop diversity gained renewed attention through further refinement of rotations and cover-crop mixtures, and **pest and weed management became more explicit** as fertiliser and input strategies evolved. Fertility discussions increasingly intersected with plant health and crop quality, reflecting a pathway in which soil cover, crop diversity and fertility management were addressed together rather than as isolated domains.

OUTCOMES FARM A

Over the programme period, the farm moved from high but not fully continuous soil cover to near-continuous coverage, with **soil kept protected** throughout most of the year. **Tillage practices** progressed from reduced disturbance to a consistently applied no-till approach with no mechanical soil disturbance. **Fertility management** evolved from early trials toward more systematic use of biological amendments, biostimulants and carbon-based inputs, alongside mineral fertiliser rates reduced to minimum.

In terms of **economic changes**, the transition is associated with a reduction the costs of production, increased profitability, and yields that remained stable under drought compared with neighbouring conventional farms, indicating improved relative performance.

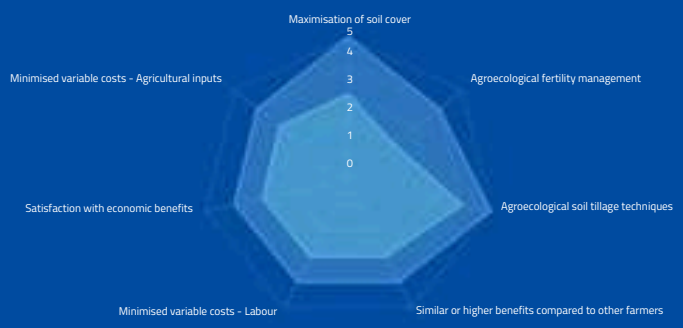
[Farm B, continued from above, right column]

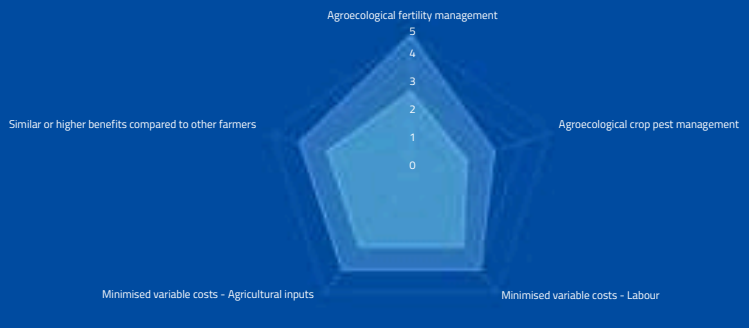
Soil cover and no-disturbance practices continued as a stable baseline throughout this phase, while other themes entered the pathway as supporting elements. **Limited livestock integration was tested** through collaboration with a neighbouring farm grazing cover crops on selected fields, and monitoring of soil structure and plant health informed management decisions. Overall, the trajectory is characterised by a concentration of advisory attention on fertility strategies that simultaneously addressed nutrient supply, plant health and pest and weed pressure, with other practices integrated as complementary components of the system.

OUTCOMES FARM B

For this farm, outcome evidence is concentrated on fertility and pest management. **Fertility practices** evolved from moderate use of biological approaches alongside mineral inputs toward more advanced substitution, with compost extracts, biostimulants and microbial inoculants used as primary fertility inputs on selected crops and a clear direction toward replacing synthetic fertilisers.

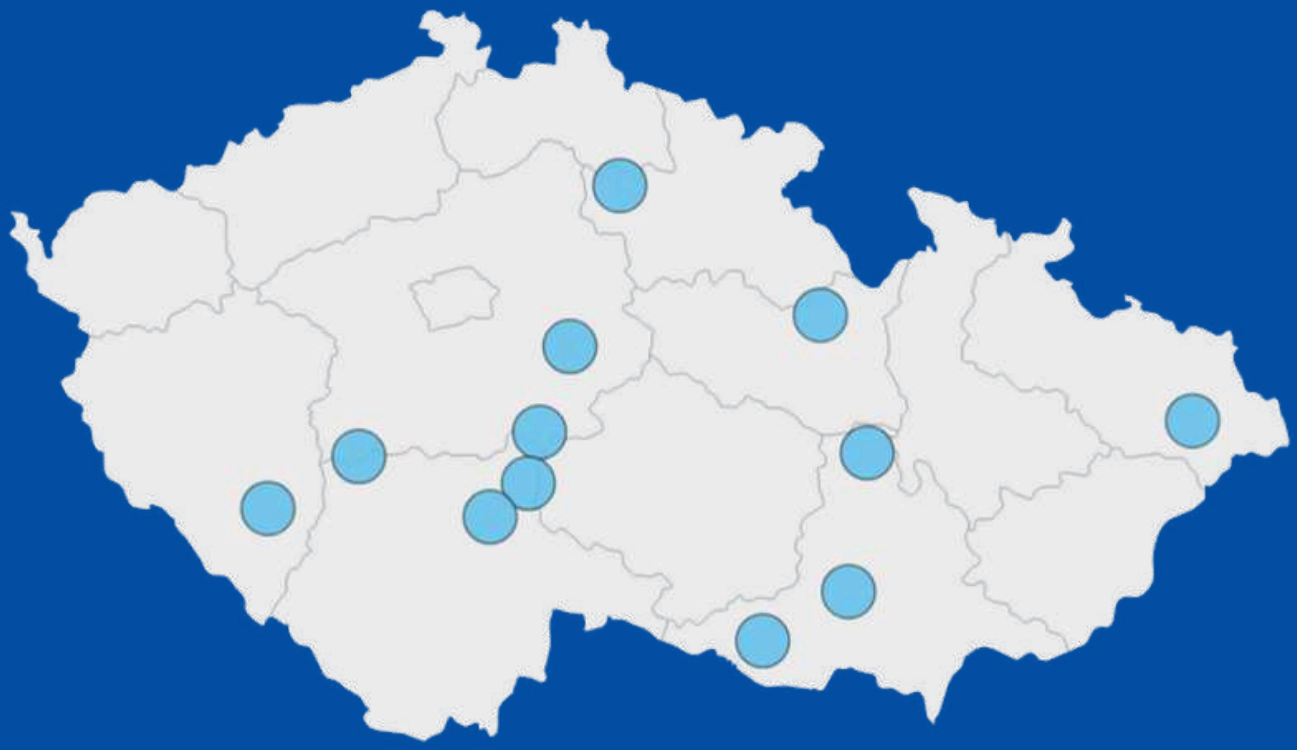
Pest management shifted from reducing pesticide use to relying mainly on biological strategies and extracts, with later stages indicating that chemical pesticides were no longer used. In terms of **economic outcomes**, reduced labour and input use were observed, and yields were described as higher than those of neighbouring conventional farms.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

ADVISORY IN NUMBERS (2023-2025) CZECHIA



6887

218

Hectares median farm size (ranging from 9 to 1205)

75%

Farmers reduced/abandoned deep tillage

18

Farmsenrolled between 2020-2025 (12 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

41%

Farmers reduced the use of nitrogen mineralfertilizers

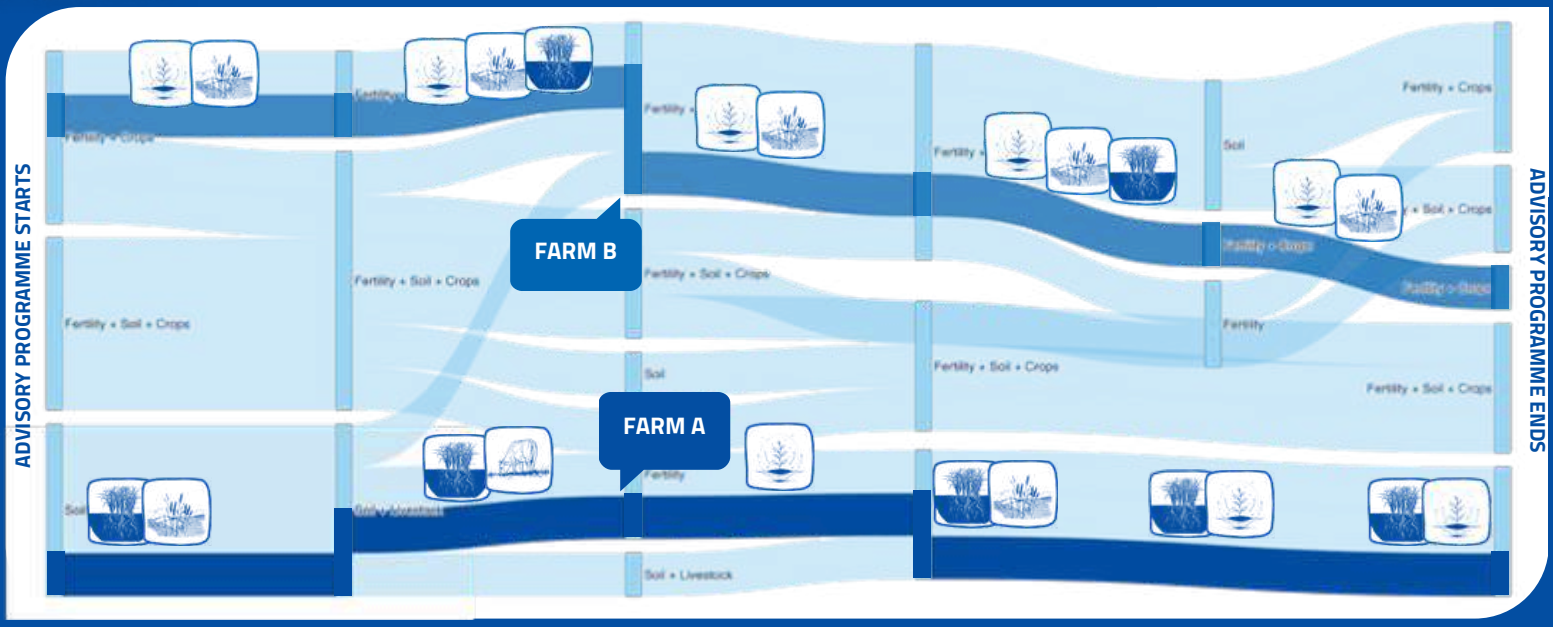
16%

Farmers reduced the use of chemicalphytosanitary products

83%

Farmers improved their soil carbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS CZECHIA



Czechia, two farm success stories illustrated through transition pathways: flows tracing how 12 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the outset of the advisory period, this farm was engaged in practices aimed at reducing soil disturbance and increasing biological complexity, though these were not yet fully established across the system. Management focused on **introducing no-till or minimum tillage combined with multi-species cover crops and intercrops**, while occasional shallow cultivation remained part of the strategy. Crop rotations included a mix of cereals and legumes, and early attention was given to erosion prevention and soil structure, with fertility practices present at small scale.

As the transition progressed, **soil cover** became more consistently integrated into the cropping plan. Cover crops were established before spring seeding and increasingly embedded in the rotation, contributing to longer periods of soil protection. Alongside this, crop diversity expanded through planned combinations of complementary species, and **regenerative grazing was explored** on a limited scale, while conventional pasture management remained dominant. Fertility management evolved gradually, with continued small-scale manure use, composting efforts and preparations aimed at improving soil microbiology, while synthetic inputs were still part of the system.

[Continues below, left column]

CASE STUDY FARM B

From the beginning of the advisory engagement, this farm operated at a larger scale with an emphasis on **diversified cropping systems and livestock**. Soil management relied on minimum tillage and strip-till practices combined with catch crops and cover crops, aimed at erosion prevention and soil protection. Crop diversity was already high, with a wide range of cereals, legumes and oilseeds grown across the farm, alongside permanent grasslands. Livestock, including sheep and goats, played a central role in maintaining grasslands systems.

As the pathway developed, **crop diversity and fertility planning were discussed in parallel**, with auxiliary and nitrogen-fixing crops positioned as part of the approach to reducing mineral fertilisers. The farm expanded compost application, manure use and the adoption of soil and plant biostimulants, while gradually reducing reliance on mineral fertilisers through the use of nitrogen-fixing and auxiliary crops. Crop rotations and diversity continued to broaden, with farmers **producing their own cover-crop seed** and managing a large number of crop species and varieties. Soil cover remained a consistent feature through multi-species cover crops integrated with strip-till systems.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS CZECHIA

[Farm A, continued from above, left column]

In the later phase, the pathway consolidated around a combination of **soil cover, fertility management and crop diversity**. No-till or minimum tillage practices remained central, supported by multi-species cover crops and more strategic rotation planning. Fertility increasingly combined manure, composting and biological inputs, while pest and weed management entered the pathway primarily through planned use of biological control products rather than through active substitution at scale.

OUTCOMES FARM A

Over the programme period, the farm progressed from limited **soil cover** to substantially higher levels of year-round protection, with cover crops becoming an established component of the seeding plan and rotation. This shift corresponds to a move from short-term or planned use toward regular implementation, resulting in soil being covered for most of the year. **Fertility management** advanced from small-scale and exploratory practices toward more frequent use of manure, composting and biological inputs, while synthetic fertilisers were reduced but not eliminated.

Environmental outcomes reflect this consolidation. The combination of conservation tillage, increased soil cover, more diverse rotations and regenerative grazing trials aligns with improvements in **soil carbon management** and overall system resilience. **Economically**, the farm reported labour savings and moderate cost reductions.

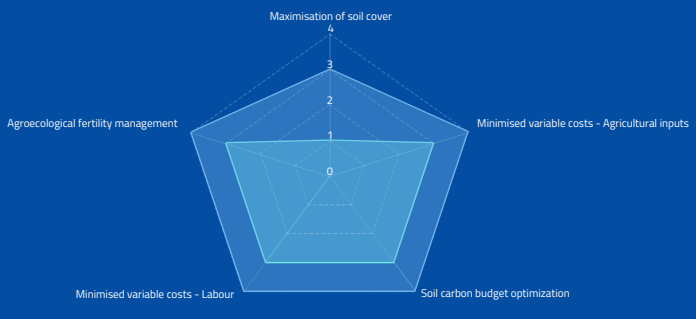
[Farm B, continued from above, right column]

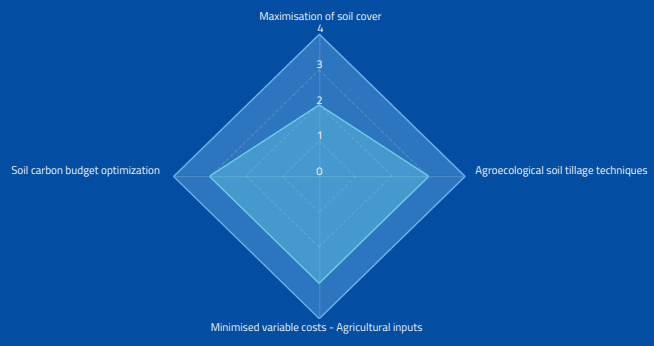
Across successive visits, management continued to centre on **minimum tillage and strip-till combined with cover crops**, alongside a broad crop rotation and the use of sheep and goats to maintain permanent grasslands. Fertility strategies focused on maintaining and improving soil biological activity through regular compost and manure application, supported by biostimulants, while water and erosion management relied on soil cover and rotations. Some biotic pressures such as weeds and vole presence are mentioned in the reporting, without being framed as limiting overall system performance.

OUTCOMES FARM B

For this farm, the observed outcomes point to a **consolidation of improved soil management** over the monitored period. Indicators related to soil cover show a clear progression, with the proportion of time the soil remains covered increasing from a moderate level to a state where cover is maintained for most of the year. In parallel, indicators related to soil tillage show a shift toward reduced and strip-tillage techniques, which become more established over time.

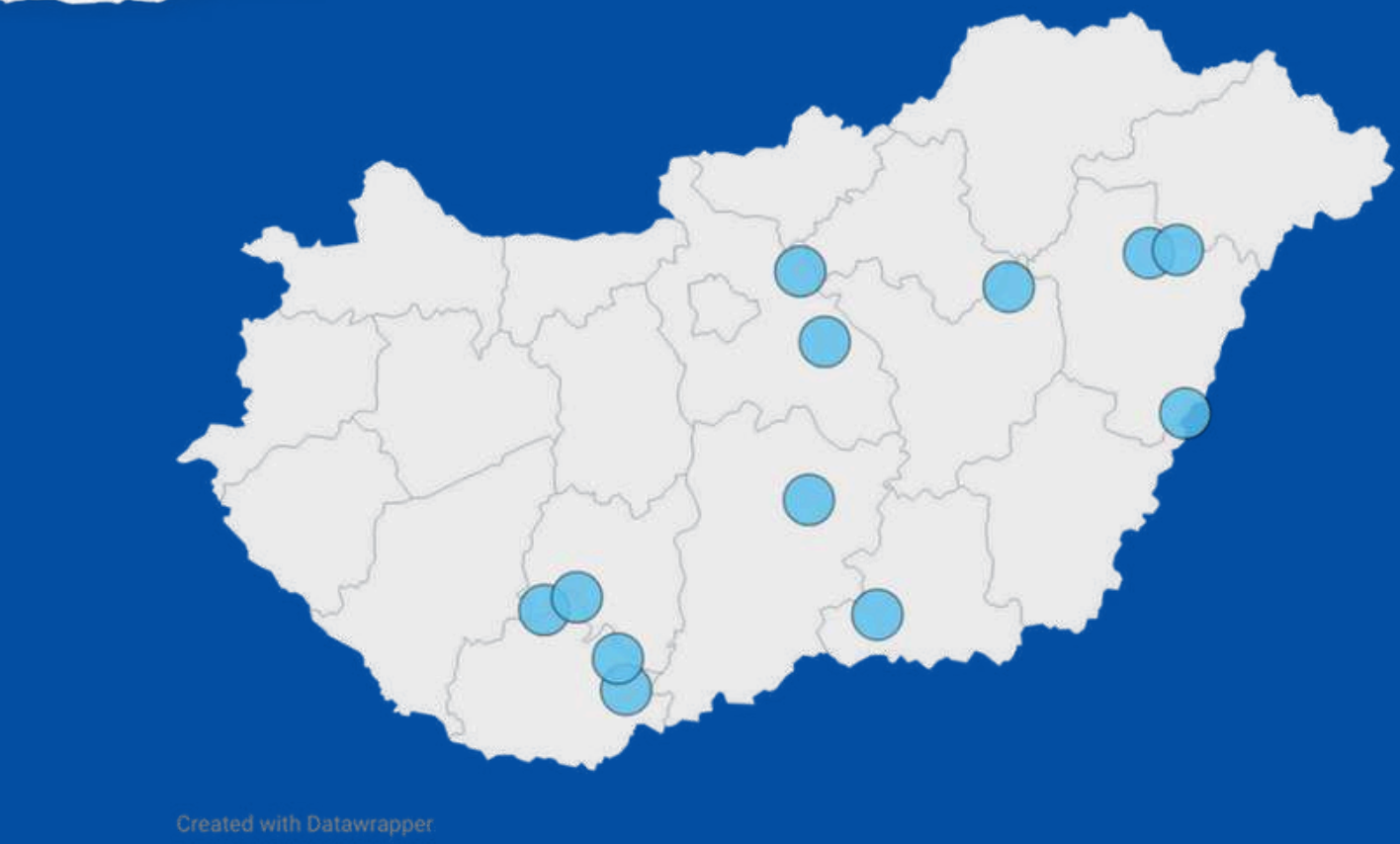
Indicators linked to **soil carbon** also improve, moving toward a situation associated with conservation-oriented management, including higher levels of soil cover and organic matter inputs. From an **economic perspective**, lower expenditure levels compared to the initial situation are documented, indicating increased efficiency in farm operation management over the observed period.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

ADVISORY IN NUMBERS (2023-2025) HUNGARY



1137 Hectares managed byenrolled farmers in total

70 Hectares median farm size(ranging from 25 to 788)

100%

Farmers reduced/abandoned deep tillage

90% Farmers reduced the use ofnitrogen mineral fertilizers

18

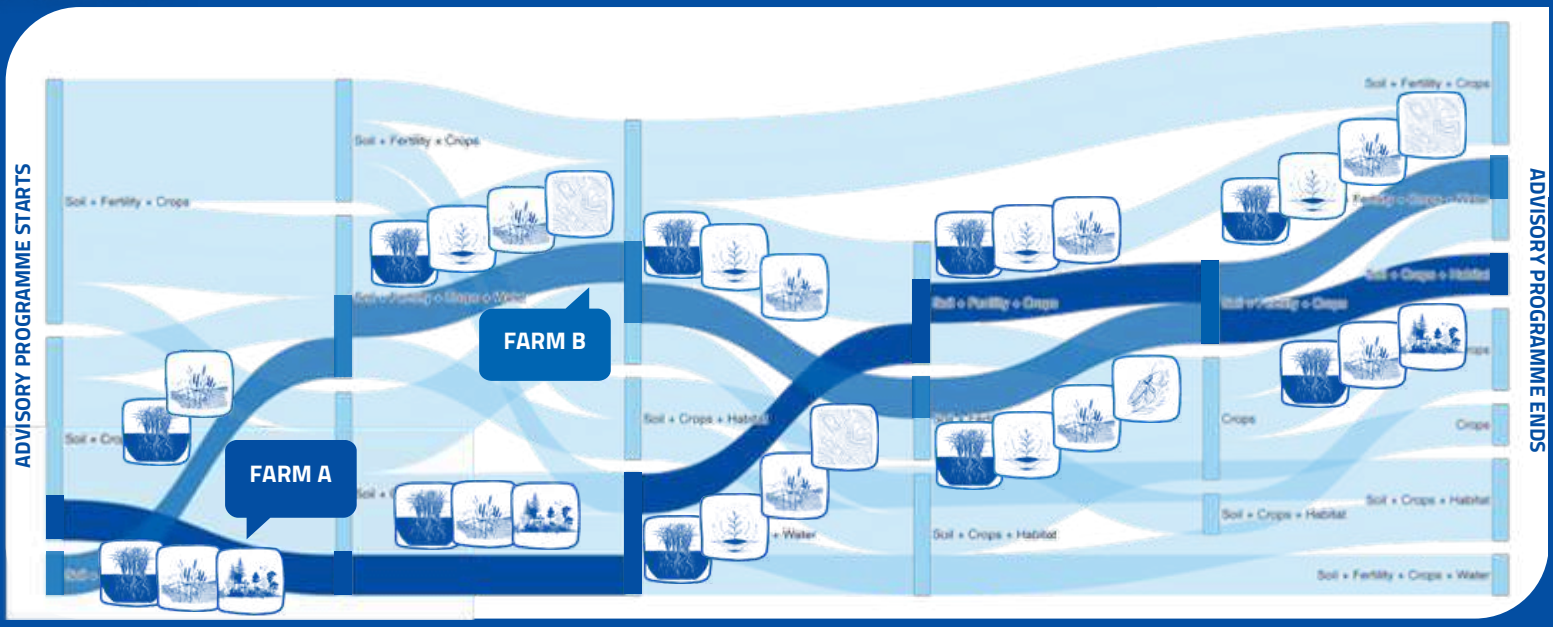
Farmsenrolled between 2020-2025 (12 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

100%

Farmers reduced the use of chemicalphytosanitary products

100% Farmers improved their soilcarbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS HUNGARY



Hungary, two farm success stories illustrated through transition pathways: flows tracing how 12 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the beginning of the advisory engagement, this farm operated under conservation-oriented practices focused on **limiting soil disturbance and erosion on sloping land**. Ploughing had already been abandoned, with shallow discing and grubber use applied instead, and crop residues were left on the fields. Cover crops were used selectively, mainly following cereals, while crop rotations combined cereals, maize and sunflower with alfalfa and grassland crops. **Field margins and forest strips** were maintained, reflecting an existing concern for habitat preservation, while livestock integration was not part of the system.

As the transition progressed, soil protection became more structured and explicit. **Reduced tillage** was refined through shallower operations, and erosion control measures were strengthened through contour cultivation, grassed field borders and permanent strips on slopes. Crop diversity was maintained through rotations including soil-building crops, while cover crops were increasingly embedded where feasible. **Fertility management** evolved cautiously, combining the current use of mineral fertilisers with the introduction of microbiological products to support residue decomposition and soil biology.

[Continues below, left column]

CASE STUDY FARM B

At the outset of the advisory period, this farm was already operating with **long-established reduced tillage and extensive soil cover**. Ploughing had been abandoned for over a decade, and cover crops and perennial forage crops were widely used across the land base. Crop rotations were diverse, with cereals, oilseeds, forage crops and legumes, and significant areas under alfalfa-grass mixtures. Mineral fertilisers and chemical plant protection products were used selectively, while fertility management had previously relied on organic manure from a partner farm, which has since ceased operations.

During the advisory process, **soil cover and minimum disturbance practices were further consolidated**, particularly on sloping fields affected by erosion. Cover crop mixtures, permanent grass on vulnerable areas and contour tillage were systematically applied. Fertility strategies adjusted in response to reduced manure availability, with continued emphasis on residue management and biological soil processes. In parallel, efforts were made to **reduce fungicide and insecticide use**, supported by flowering strips, predator perches and existing landscape features.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS HUNGARY

[Farm A, continued from above, left column]

In the later phase, the pathway consolidated around soil cover, reduced disturbance and more integrated fertility strategies. Conservation tillage remained the core practice, supported by residue retention and permanent or temporary grassed areas to address erosion risks. Fertility discussions increasingly focused on **balancing mineral inputs with biological products**, while crop diversity and water management were treated as supporting elements within a system shaped by landscape constraints. Livestock remained limited to small-scale household use, without broader integration into cropping operations.

OUTCOMES FARM A

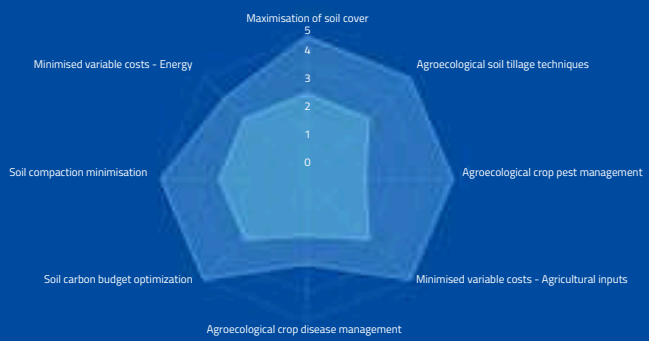
Over the programme period, the farm progressed from conservation tillage toward more consistently **reduced soil disturbance**, with shallow operations replacing deeper cultivation and ploughing fully excluded, while systematic residue retention and longer crop rotations contributed to more coherent soil management practices. **Fertility management** evolved from moderate use of agroecological practices toward more integration of biological products, while permanent soil-building crops such as alfalfa strengthened crop rotations. Together, these changes correspond to incremental improvements in soil structure and **carbon-related practices**, while mineral fertilisers and plant protection products were increasingly positioned as complementary tools within a broader biologically oriented strategy.

[Farm B, continued from above, right column]

In the later phase, the pathway shifted toward **a more pronounced system reconfiguration**, moving toward organic management and perennial systems, including orchards and agroforestry-oriented layouts with permanent ground cover and mulched tree rows. No-till and direct planting techniques were adopted for new plantings, and reliance on synthetic fertilisers and pesticides was discontinued. The farm relied more on **natural predators, organic inputs and biological processes**, while soil cover and minimal disturbance remained the stable foundation of the system.

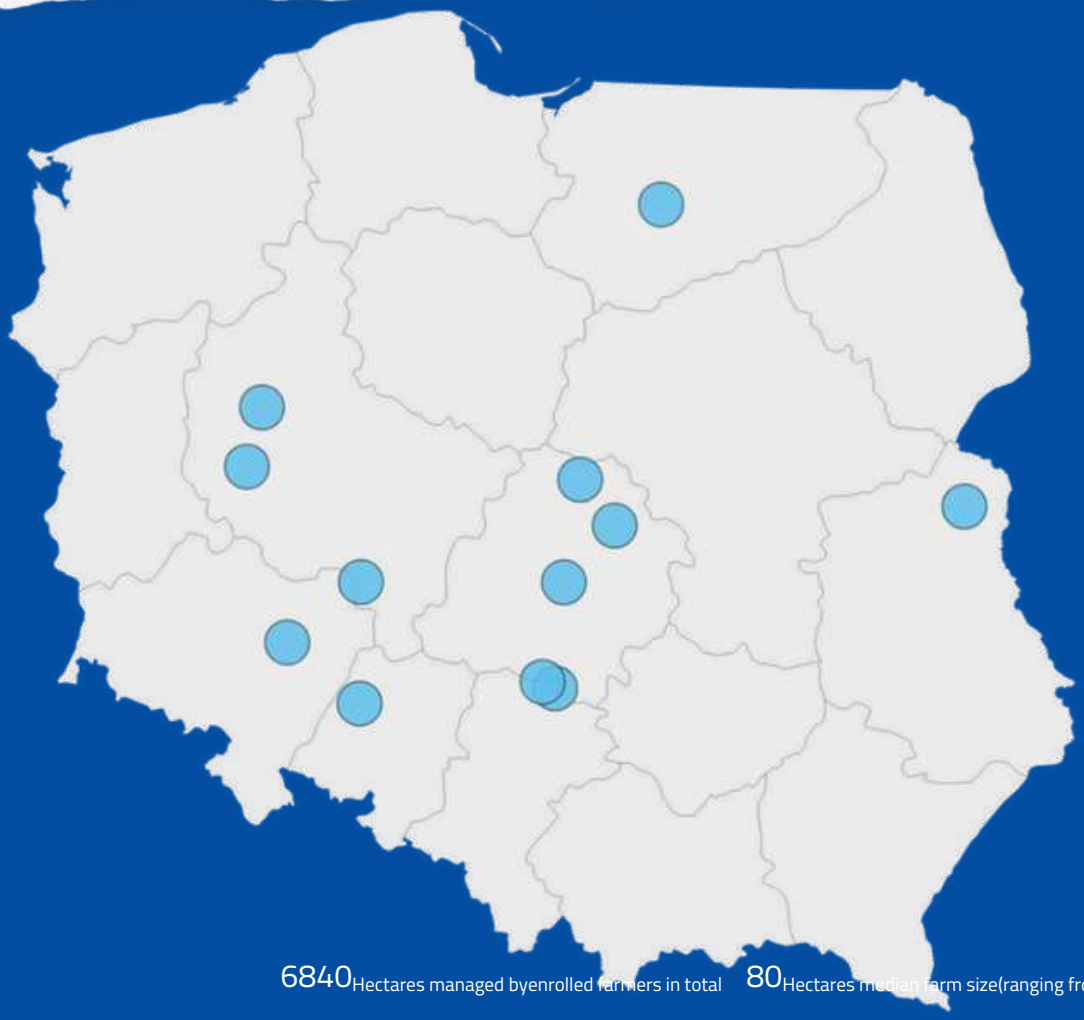
OUTCOMES FARM B

For this farm, outcomes reflect a transition from already advanced conservation practices to a more integrated organic system. **Soil cover** increased from high seasonal coverage to near-continuous protection through living mulches, perennial crops and mulch layers maintained throughout the year. **Tillage practices** evolved from long-term minimum tillage to no-till and direct planting, particularly in newly established orchards and agroforestry-oriented systems. **Pest and disease management** progressively shifted away from chemical use, alongside increasing reliance on natural predators and biological regulation, supported by flowering strips and habitat features. As a result, outcome indicators point to **lower agricultural input and energy costs**, alongside improvements in crop pest management, soil carbon management practices and soil compaction.



Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

ADVISORY IN NUMBERS (2023-2025) POLAND



6840 Hectares managed byenrolled farmers in total

80 Hectares median farm size(ranging from 8 to 1530)

100%

Farmers reduced/abandoned deep tillage

100% Farmers reduced the use ofnitrogen mineral fertilizers

18

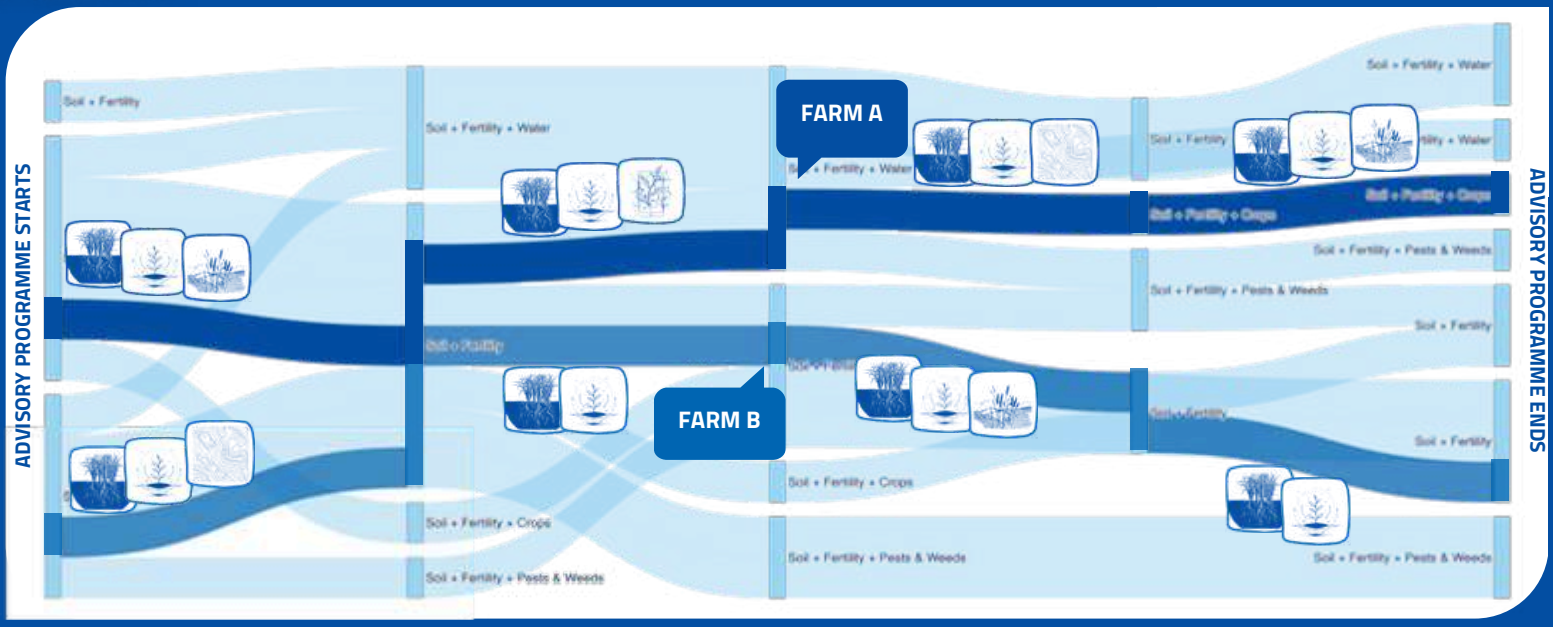
Farmsenrolled between 2020-2025 (12 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

100%

Farmers reduced the use of chemicalphytosanitary products

66% Farmers improved their soilcarbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS POLAND



Poland, two farm success stories illustrated through transition pathways: flows tracing how 12 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the beginning of the advisory process, this farm operated under cultivation systems **combining reduced tillage and conventional practices**. Advisory attention focused on soil structure and erosion risk management through catch crops, rotation refinement and reduced mechanical disturbance. Fertility relied on mineral fertilisers and horse manure, with soil analyses highlighting pH and nutrient imbalances. Crop diversity already included cereals, legumes and flax, alongside horse breeding and the reuse of straw and manure within the farm.

As the pathway developed, discussions centred more tightly on **soil cover, reduced disturbance and fertility optimisation**. The farm expanded cover crop mixtures and low-disturbance tillage practices, linking these choices to erosion control and water retention. Soil monitoring became more regular, with physico-chemical and biological tests used to guide fertilisation decisions. Fertility management shifted toward more deliberate nutrient balancing and reduced mineral inputs, while rotations were adjusted to better support soil structure and biological activity.

[Continues below, left column]

CASE STUDY FARM B

From the outset, this farm operated at a larger scale with a diversified production system combining extensive crop production and dairy livestock. Early attention focused on **reduced disturbance** through reduced-intensity tillage systems and strip-till seeders, while maintaining a broad crop rotation. Fertility combined cattle manure, mineral fertilisers and biological preparations, supported by precision farming tools. Water management relied on precipitation and drainage infrastructure, while erosion prevention was repeatedly linked to cover cropping and reduced soil disturbance.

As the pathway progressed, **attention intensified around soil cover, reduced tillage and fertility strategies**. The farm expanded cover and catch crops over larger areas, reduced machinery passes and further limited ploughing. Fertility management increasingly emphasised organic fertilisation, biological preparations and nutrient recycling, with mineral inputs used more as supplements. Rotations remained diverse and included plans to introduce additional legumes, while habitat and landscape elements (ponds, tree strips, hedges, forest edges) were treated as relevant features of the farm context.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS POLAND

[Farm A, continued from above, left column]

In the later phase, soil cover and reduced disturbance practices became consolidated as the backbone of the system. **Fertility management remained a central theme**, supported by continued use of manure, residue retention and targeted mineral inputs. Crop diversity and functional crop-livestock linkages were maintained as complementary elements, while advisory attention increasingly linked soil protection, fertility management and erosion prevention. This consolidation reflects a transition toward a more integrated management approach, better aligned with climatic variability, drought risk and the need for long-term soil resilience.

OUTCOMES FARM A

Over the programme period, the farm progressed from a baseline of reduced tillage toward more consistently applied **minimum tillage systems**, enabled by the exclusive use of surface-based soil operations. These changes were associated with **improvements in soil physical conditions** and wind and water erosion risks reduced through reduced disturbance and sustained soil cover.

In parallel, **lower fuel consumption and labour savings** emerged as a result of lower tillage intensity, contributing to reduced energy and labour costs. Together, these operational gains were accompanied by higher economic benefits from farming activities, despite ongoing climatic constraints.

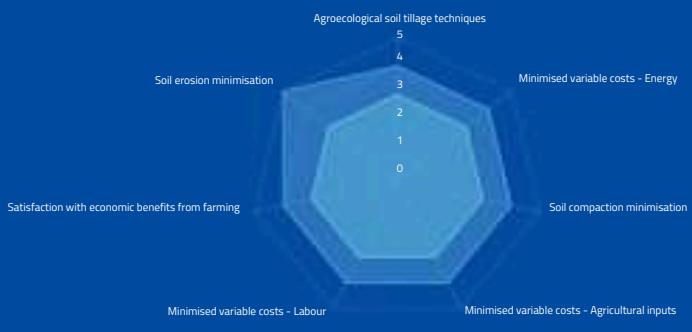
[Farm B, continued from above, right column]

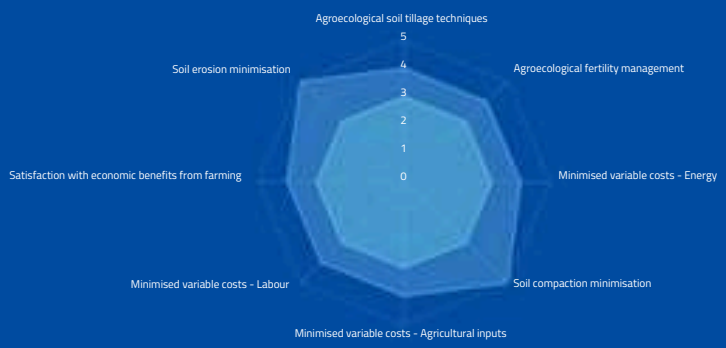
In the later stage, **reduced disturbance and soil protection practices became firmly embedded**, supported by large-scale use of cover crops. Fertility management remained closely linked to soil health, biological activity and nutrient cycling, while disease risk and plant resilience were discussed in relation to crop diversity and the continued use of biological preparations. Advisory discussions in this phase increasingly framed these practices in terms of operational coherence, emphasising how reduced soil disturbance and fewer field passes could align soil protection and fertility goals with gains in time management and cost efficiency.

OUTCOMES FARM B

For this farm, outcomes are most visible in soil protection, fertility management and operational efficiency. The transition toward exclusive use of **low-disturbance and strip-till seeders**, combined with widespread cover crop adoption, resulted in an improvement of soil structure and soil erosion control. **Fertility management** evolved toward extensive use of organic manure and biological preparations, with reduced dependence on mineral fertilisers and improved nutrient cycling across the farm.

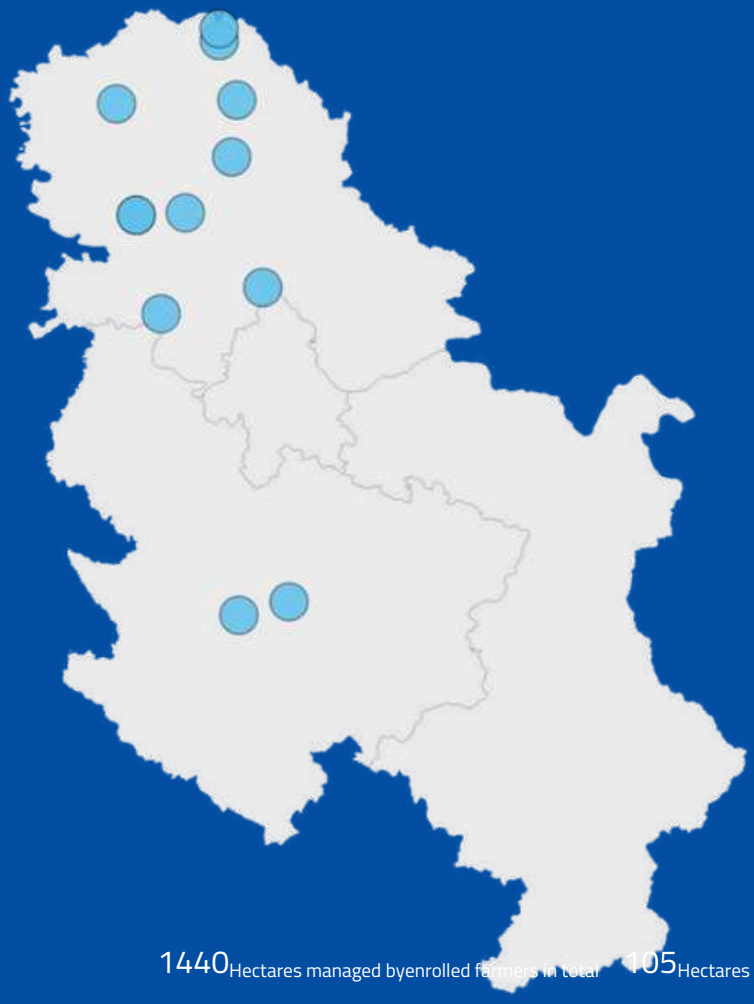
These changes were associated with **lower fuel and labour inputs**, reduced production costs and improved economic performance, while supporting production despite events of abiotic stres





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

ADVISORY IN NUMBERS (2023-2025) SERBIA



1440 Hectares managed byenrolled farmers in total

105 Hectares median farm size(ranging from 12 to 500)

Created with Datawrapper

100%

Farmers reduced/abandoned deep tillage

100% Farmers reduced the use ofnitrogen mineral fertilizers

12

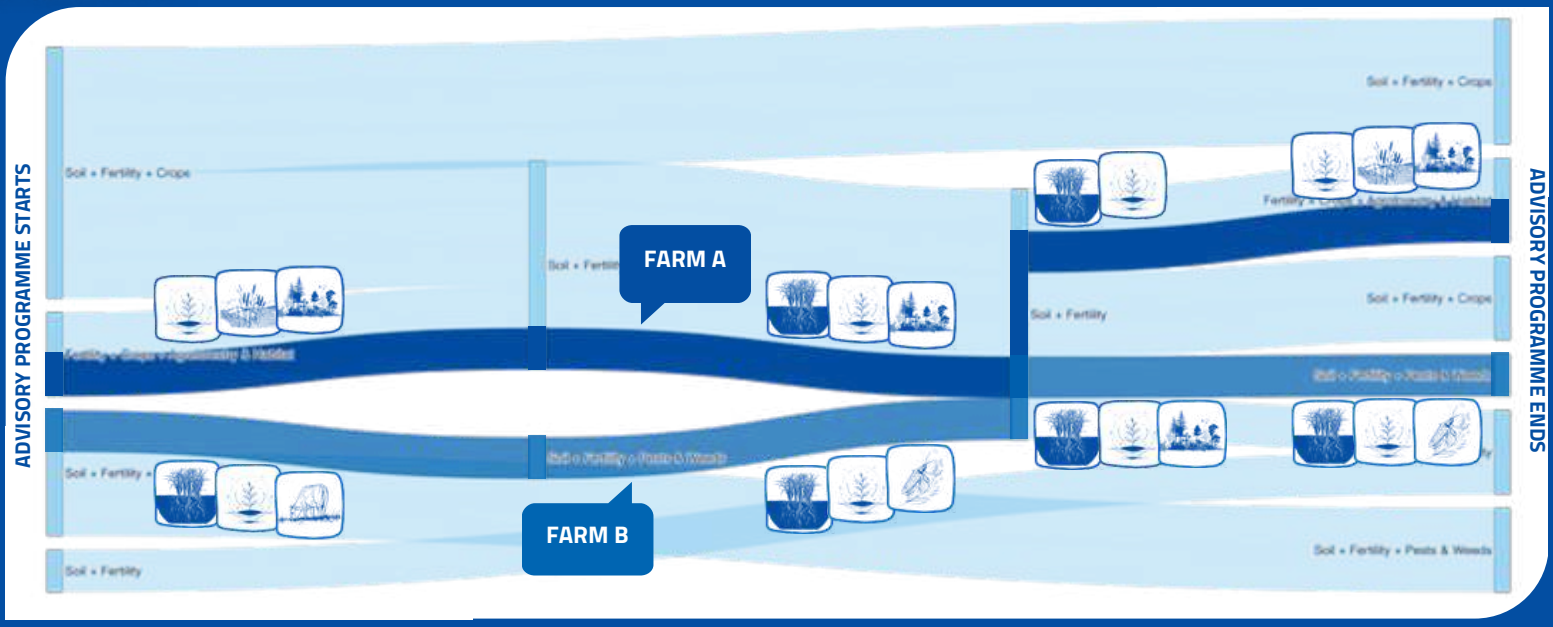
Farmsenrolled between 2020-2025 (12 farms belonging to the 2024-2025 cohorts, analysed and shown on the map, although outcomes were analysed for the 2024 cohort only)

100%

Farmers reduced the use of chemicalphytosanitary products

50% Farmers improved their soilcarbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS SERBIA



Serbia, two farm success stories illustrated through transition pathways: flows tracing how 6 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the beginning of the advisory engagement, the farm was already **transitioning from conventional plough- based systems toward conservation tillage** practices, progressively implemented on a field-by-field basis. Advisory attention focused on soil cover and reduced on disturbance, alongside fertility strategies already organic inputs, mineral fertilisers had been discontinued, with fertility managed through livestock and microbiological preparations. Crop rotations were diversified and included cover crops, with plans to further poultry manure, biostimulants and expand rotation complexity.

As the pathway developed, conservation tillage became more consistently applied and strip-till was tested on selected crops. **Cover crops were introduced more systematically** to improve soil structure, microbiology and erosion control. Fertility management remained central, supported by soil analyses and recommendations on nutrient corrections and the use of organic amendments. Crop diversity increased through the introduction of additional crops and cover-crop mixtures, while pest management shifted toward reduced chemical use and greater reliance on biological preparations.

[Continues below, left column]

CASE STUDY FARM B

At the outset, this farm relied on intensive conventional tillage with ploughing within a perennial raspberry system. Advisory engagement focused on **initiating conservation tillage and establishing soil cover** between plantation rows. Early practices included introducing cover crops, applying organic fertilisers and poultry manure, and reducing agrochemical use. Fertility management aimed to decrease mineral fertiliser dependence through organic inputs and nitrogen fixation, while poultry integration supported nutrient cycling and pest and weed control.

As the pathway developed, soil cultivation was conducted according to conservation tillage principles adapted to local conditions, and inter-row cover was terminated mechanically with mowers. **Cover crop mixtures with legumes and flower strips were established** to increase biodiversity, while fertility management combined organic fertilisation, microbiological fertilisers and a cautious liming approach to raise low soil pH. Pest and weed management combined reduced agrochemical use with grazing poultry and habitat-based approaches. Water management emphasised rational irrigation aligned with plant needs, alongside cover crops and planted forest to reduce wind and water erosion.

[Continues below, right column]

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS SERBIA

[Farm A, continued from above, left column]

In the later phase of the pathway, soil cover and reduced disturbance were consolidated as stable and recurrent elements of field management. Strip-till was tested on selected fields and cover crops were regularly integrated, while **reforestation, windbreaks and buffer zones with flower strips** were established to reduce wind and water erosion and create habitats for pollinators and beneficial fauna. Fertility management continued to rely on organic fertilisers, including poultry manure and other organic amendments, complemented by microbial and biological preparations. Pest management continued to prioritise biological products, alongside ongoing optimisation and minimisation of chemical pesticide use.

OUTCOMES FARM A

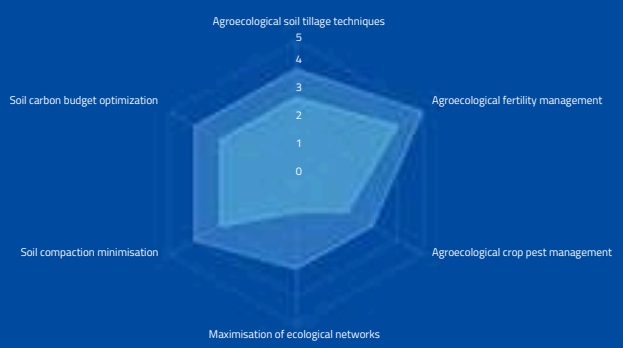
The farm progressed from conventional tillage toward **reduced tillage** and the testing of strip-till, corresponding to an improvement in agroecological soil tillage techniques. **Fertility management** advanced from frequent agroecological practices toward full substitution of mineral fertilisers with organic inputs and microbial preparations. **Pest and disease management** increasingly relied on biological preparations, including bio-fungicides, alongside continued optimisation and minimisation of chemical pesticide use. **Ecological networks** increased through the establishment and expansion of windbreaks, while **soil structure and soil carbon management** improved alongside sustained conservation tillage, cover cropping and organic fertilisation.

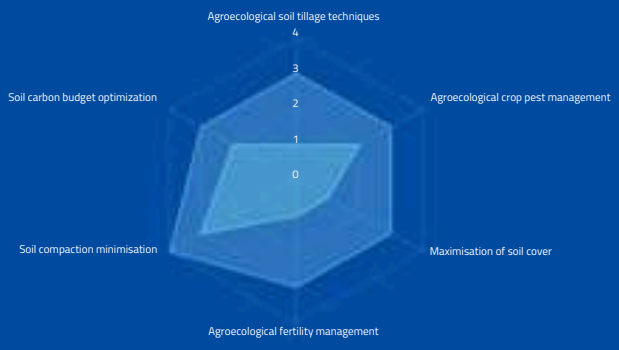
[Farm B, continued from above, right column]

In the later stage, conservation tillage and cover crops between raspberry rows continued as core practices. Inter-row cover was managed mechanically with mowers, and cover cropping was described as supporting soil protection and erosion control. Fertility strategies focused on the continued use of organic fertilisers, poultry manure and microbiological inputs, alongside **measures to improve nutrient availability** through biological nitrogen fixation and soil pH correction. Pest and weed management remained based on reduced agrochemical use combined with grazing poultry and habitat measures such as flower strips.

OUTCOMES FARM B

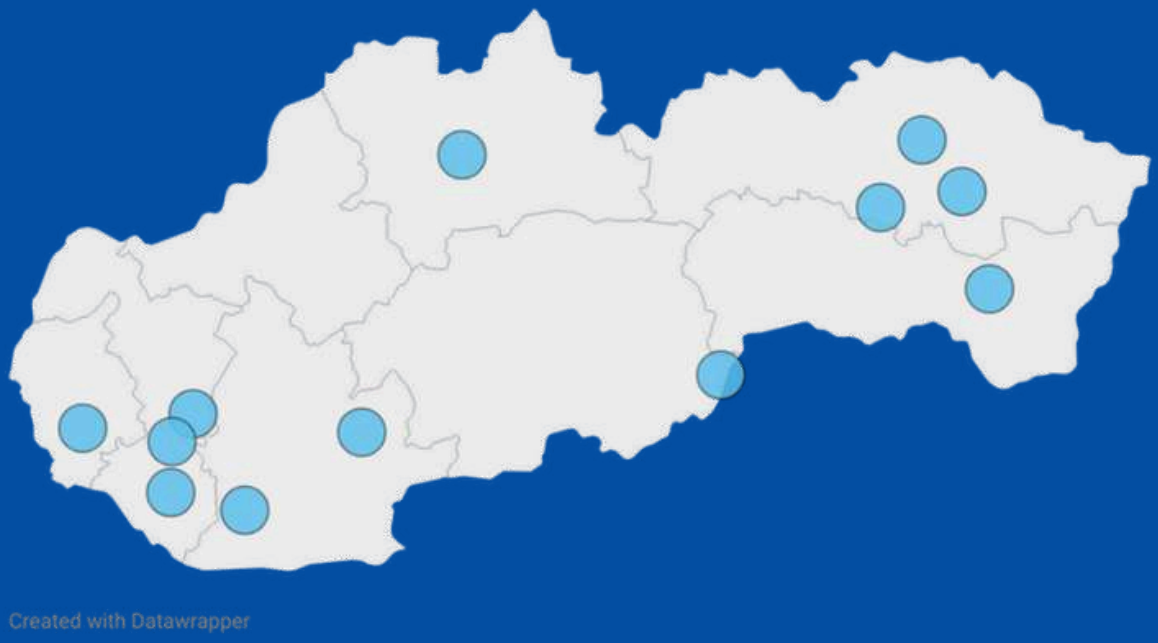
For this farm, outcomes are most evident in soil tillage approach, soil cover, fertility management and early soil condition indicators within a perennial system. The shift away from intensive ploughing toward **conservation tillage, together with cover crops** between rows, reduced the time the soil was left bare. **Fertility management** evolved toward organic fertilisation with poultry manure, legumes and microbiological products, supported by soil liming. **Pest management** shifted toward a mixed approach combining reduced agrochemical use with practices such as grazing poultry and the establishment of flower strips. Improvements in **soil structure and soil carbon management** were achieved, with reduced- disturbance practices requiring careful adjustment and learning to fit perennial crop constraints.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

ADVISORY IN NUMBERS (2023-2025) SLOVAKIA



18

Farmsenrolled between 2020-2025 (12 farms belonging to the 2023-2025 cohorts, analysed and shown on the map)

5913

66%

Farmers reduced/abandoned deep tillage

66%

Farmers reduced the use of chemicalphytosanitary products

180

Hectares median farm size (ranging from 1 to 940)

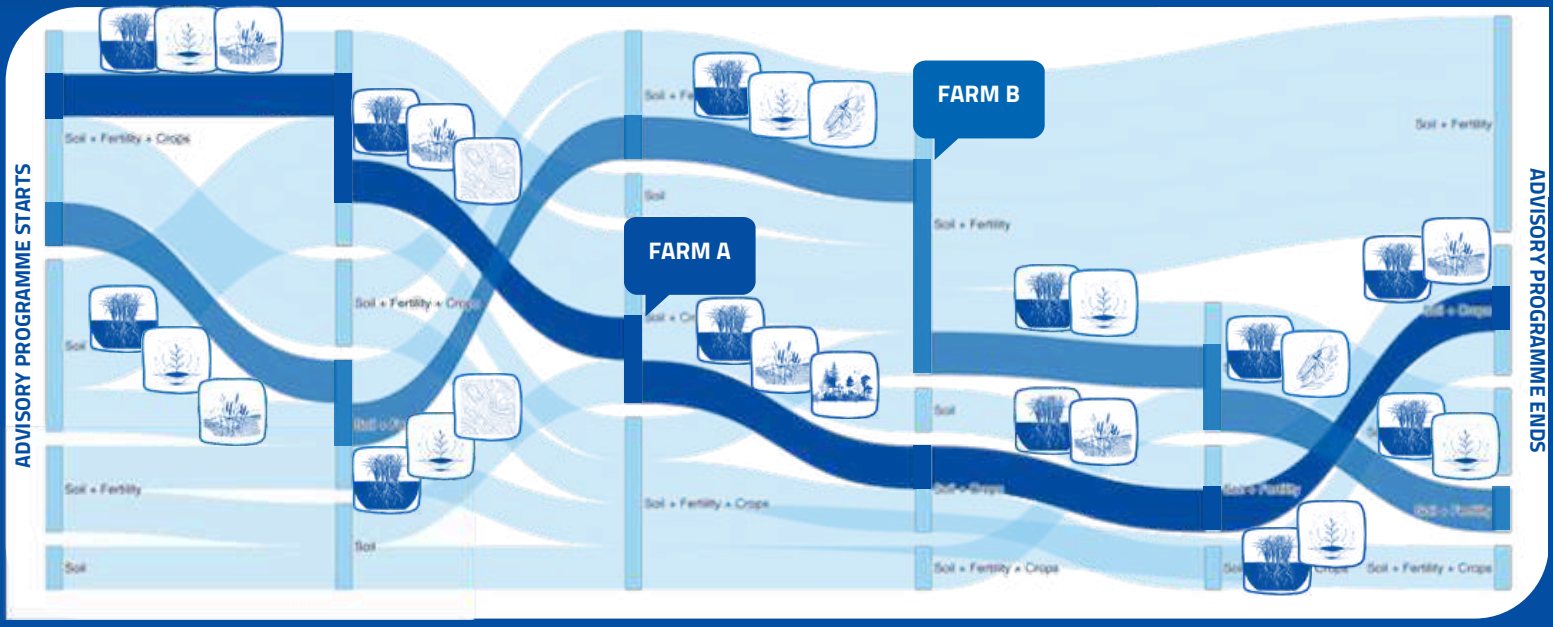
66%

Farmers reduced the use of nitrogen mineralfertilizers

91%

Farmers improved their soil carbon levels

SUCCESS STORIES (2023-2025)
TRANSITION PATHWAYS SLOVAKIA



Portugal, two farm success stories illustrated through transition pathways: flows tracing how 12 farms moved between different configurations of advisory attention (groups of main practice themes discussed; see icons) at each field visit (vertical bars), as advisory focus evolved over time.

CASE STUDY FARM A

At the start of the advisory process, this farm had already discontinued ploughing, with shallow tillage (5-10 cm) practiced for several years and cover crops used regularly. Advisory attention initially focused on **consolidating reduced soil disturbance, improving direct seeding and strip-till** Fertility management relied on compost, digestate and biowaste inputs to maintain organic matter in the absence of livestock, alongside reduced mineral fertiliser use. Crop rotations were already diversified, including cereals, legumes, oilseed rape and maize.

As the pathway progressed, soil cover and reduced disturbance remained central, with repeated testing of multispecies cover crops, shallow tillage and inter-row cultivation. Advisory discussions increasingly framed **soil management choices in relation to water retention**, reflecting the lack of irrigation and declining rainfall effectiveness. Fertility strategies expanded through more consistent compost and digestate application, while advisory input addressed compost quality and biological performance. Biodiversity measures such as pollinator strips, grass borders and bird habitats were maintained.

[Continues below, left column]

CASE STUDY FARM B

At the outset, the farm reported **soil compaction issues and a rotation dominated by wheat**, while seeking to reduce deeper cultivation and improve biodiversity through intercropping. Initial advisory focus centred on reducing tillage intensity, introducing intercropping and increasing soil cover to limit erosion and evaporation. Fertility inputs were described as minimal in industrial fertilisers, with fertilisation plans to be refined through soil analysis and nutrient correction, alongside limited manure use and a stated intent to develop compost teas and biological preparations.

As the pathway developed, t**he farm tested no-till and direct seeding** alongside cereal-legume intercropping. Fertility planning combined minimal industrial fertiliser use for cereals with manure applied on a small part of the area, alongside an expressed need to scale intercrops and biological preparations based on mycorrhizal fungi and nitrogen-fixing bacteria. **Crop diversity increased** through new species and catch crops, while pest and weed management emerged as a key challenge, particularly under direct seeding. Water management discussions focused on reducing evaporation through permanent soil cover.

[Continues below, right column]

SUCCESS STORIES (2023-2025) TRANSITION PATHWAYS SLOVAKIA

[Farm A, continued from above, left column]

In the later phase, reduced tillage and soil cover cropping were treated as established baseline practices, with advisory follow-up oriented toward adapting them to increasingly dry and hot seasons. Water-related considerations remained centred on soil-based solutions, reflecting ongoing climatic constraints and the absence of irrigation infrastructure. Advisory attention focused on **improving compost quality, maintaining diverse rotations, and strengthening weed management** through inter-row cultivation and reduced herbicide use.

OUTCOMES FARM A

Over the programme period, the farm maintained the long-term elimination of ploughing and consolidated **reduced tillage practices**, including very shallow soil preparation in monitored plots. **Soil structure** improved, reported

improvements in soil biological functioning.

supported by minimal soil disturbance and **Weed management** moved toward mixed systems combining mechanical approaches and inter-row cultivation, with

reported lower emergence of weeds.

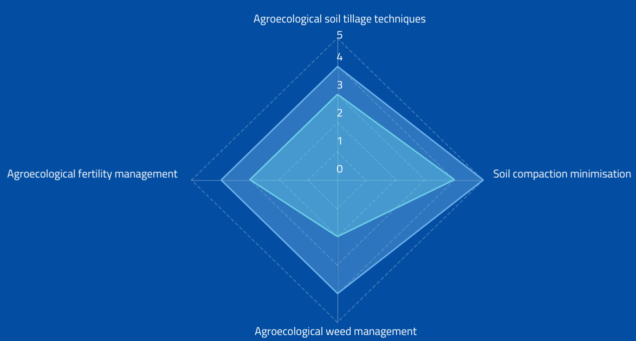
Fertility management strengthened through repeated compost, biowaste and digestate applications and continued cover cropping, alongside reported reductions in mineral fertiliser doses during spring, reflecting a more selective use informed by soil nitrogen analyses.

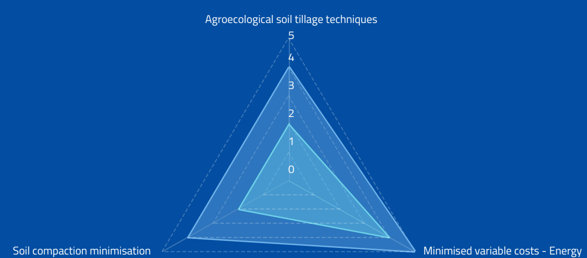
[Farm B, continued from above, right column]

In the later stage, advisory efforts concentrated on stabilising the system after mixed results. **Shallow tillage was reintroduced to manage weeds**, while cover crops and diversified rotations were maintained. **Fertility management progressed** through on-farm composting and plant-based preparations, and insecticide use was discontinued. Livestock integration began on a small scale, while advisory attention continued to address weed pressure, soil structure and management capacity constraints.

OUTCOMES FARM B

For this farm, progress was constrained by persistent weed pressure and the need for adaptive management under reduced-disturbance conditions. Following an unsuccessful attempt at strict no-till, the system stabilised around **shallow tillage as a compromise** to manage weeds while limiting soil disturbance. Within this configuration, **soil structure improved**, consistent with reduced tillage depth and the accumulation of surface residues. At the same time, **energy costs declined**, reflecting lower diesel consumption associated with fewer and shallower field operations. Together, these outcomes show efficiency gains linked to adaptive soil management, highlighting the importance of pragmatic adjustments in response to system feedback.





Spider charts showing the outcome profiles of Farm A (left) and Farm B (right), before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, based on the indicators most relevant to each farm as identified through field-level annual assessments and scored ex post through a systematic review of farm visit reports.

BEFORE CONCLUDING: LEARNING FROM COMPLEXITY

FROM OBSERVED PROGRESS TO VISIBLE TENSIONS

The success stories presented above document a diversified range of improvements across agroecological, environmental and socio-political dimensions, demonstrating that regenerative transition pathways can deliver tangible outcomes. At the same time, some transition profiles make it possible to observe **improvements together with emerging tensions**. In these cases, trade-offs become explicitly visible alongside progress, as illustrated by the two spider charts presented on the following page, corresponding to two different farms.

When considered together, the outcome profiles of **the two farms show similar patterns**. In both cases, the most pronounced positive changes are observed across farming practices, environmental outcomes and selected socio-political dimensions. Fertility management shifts markedly toward diversified strategies with no reliance on synthetic fertilisers, supported by the introduction of cover crops, compost and biologically based inputs. Crop disease management evolves toward mixed approaches combining soil fertility strategies, conservation practices and biological or microbiological tools, while weed management moves away from frequent mechanical interventions toward systems leveraging ecological regulation.

These practice-level changes are accompanied by longer and more continuous soil cover, and by early positive signals related to soil carbon management, reduced erosion risk and lower soil compaction, suggesting improvements in soil structure and ecosystem functioning. In parallel, both farms register advances in socio-political indicators linked to workload balance, work meaningfulness or the self-consumption of farm products, indicating that organisational and personal dimensions also adjust during transition.

At the same time, **both outcome profiles reveal recurring trade-offs** concentrated in a narrow subset of economic indicators. In both farms, variable costs associated with organic manures, plant growth stimulators and effective micro-organisms increase during the observed period.

BEFORE CONCLUDING...
LEARNING FROM COMPLEXITY

These declines in cost-related indicators occur alongside the intensification of biological fertility strategies and the introduction of new inputs aimed at supporting soil biology and plant resilience. Read jointly, the two profiles suggest that such **trade-offs may represent a recurrent feature of some regenerative transitions**, where advances in agroecological practices and environmental outcomes coexist with economic pressures on specific input categories.

On this basis, trade-offs are not treated as failures or anomalies, but as intrinsic features of transition processes in which **multiple objectives evolve at different speeds**. As farms move toward more integrated and ecologically complex systems, temporary imbalances, cost reallocations and managerial compromises might be expected. For example, the observed pattern might be consistent with the hypothesis that some regenerative transitions follow U-shaped economic trajectories, in which certain indicators decrease before systems stabilise and efficiencies consolidate, with an important share of the costs of experimentation, prototyping and system-level innovation being borne directly by farms.

It should be noted that **a systematic analysis of trade-offs was not performed** within this report, since they were explicitly documented only in a small number of situations. This might be explained by the setup of this data collection, that was primarily oriented toward identifying areas of most visible change, a focus that does not necessarily bring trade-offs to the surface in a consistent way. **Making such tensions explicit** would require an observation design specifically oriented toward trade-offs, capable of tracking reallocations, imbalances and countervailing dynamics.

Taken together, **these patterns reflect the inherently complex nature of regenerative transitions**, characterised by cross-scale dynamics, delayed adjustments and multi-dimensional change. This underlines the importance for future data collection efforts in the regenerative space to integrate more detailed tools for trade-off assessment and economic data collection and analysis, in order to learn from how synergies, trade-offs and efficiencies evolve over time, and gain more realistic expectations about the pace, costs and trajectories of regenerative change, informing programme design and transition support strategies.

Spider charts showing the outcome profiles of two farms, before (cyan, brighter tone) and after (azure, darker tone) participation in the programme, scored according to the indicators most relevant to each farm. Areas where the darker shape extends beyond the lighter one indicate improvements in agronomic, ecological and social indicators; conversely, areas where the lighter shape extends beyond the darker one highlight the observed economic trade-offs.

SCALE UP PROGRAMME CONCLUSION & RECOMMENDATIONS

FROM PROGRAMME DELIVERY TO FARM-LEVEL TRANSITIONS

This concluding section draws together the evidence presented across the report, which has examined the ScaleUp Regenerative Agriculture Programme through a combination of programme-level outputs and farm-level results. This evidence highlights the depth and breadth of the regenerative transition observed at field and farm level where introductory training is followed by targeted advisory, as reflected in the range of practices addressed and the sequencing of changes observed over time.

Training activities function as an entry point, building shared understanding and technical literacy among a broad and diverse group of farmers, while also serving as a mechanism to identify and select farms with the interest, capacity and readiness to engage in more targeted advisory support. **Advisory engagement then translates this foundation into farm-specific decision- making**, supporting the prioritisation, adaptation, and sequencing of practices over time across selected pilot farms, in relation to their specific contexts and transition stages. Where this continuum is maintained, advisory outcomes indicate incremental but consistent changes in management practices and resource use.

Taken together, the analysis shows how regenerative transitions are shaped by the interaction between technical practices, advisory processes, farm context, and wider system constraints, rather than by the adoption of isolated techniques.

IMPLICATIONS AND FUTURE DIRECTIONS

The findings presented in this report suggest several implications for the future design and refinement of regenerative agriculture support programmes.

First, the ScaleUp experience illustrates how **training and advisory can be structured as a continuous pathway**, in which introductory training activities function as an entry point and selection mechanism for more targeted, farm-specific advisory support, showing how this continuity supports the translation of shared understanding into sequenced on-farm practice-adoption over time.

Second, training applications were dominated by farm owners, while farm managers and operational roles were less represented; **strengthening engagement of these groups** would support day-to-day implementation and help align operational decision-making with transition objectives across many farming operations.

Third, the analysis shows that advisory support must be structurally adaptable to different production systems and regional contexts, as transition themes are rebalanced in distinct ways across advisory profiles rather than following a uniform sequence of change. Together with the other context-dependent evidence discussed below, this suggests the potential value of **designing flexible, context-adapted programmes, mechanisms and portfolios of different measures** that can be mobilised according to farm- and context-specific needs to support, accelerate or consolidate the regenerative transition, whether related to advisory, training, analysis, equipment or other enabling resources.

Fourth, across regions, observed change under advisory support concentrates most consistently in agronomic practices, with selected economic dimensions also showing early movement, while **environmental, socio-political and resilience-related outcomes require longer or deeper farm-level engagement** to emerge.

SCALE UP PROGRAMME
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Fifth, observed outcomes show that the regenerative transition can be both incremental and non-linear; progress most often occurs through stepwise advances within specific practice areas, while temporary rebalancing and trade-offs might emerge across other dimensions, calling for further refinement of data collection and analytical tools to **better capture tensions within the regenerative transition**, and for **realistic expectations** regarding the pace and complexity of change.

Sixth, future programme phases should explicitly recognise that regenerative change unfolds at multiple spatial and organisational levels, and place greater emphasis on the systematic documentation of where change occurs, in order to **distinguish between plot- or field-level, farm-level and wider system-level** outcomes and influencing factors (e.g. household, community and landscape dimensions), thereby extending the scope of impact assessment.

Finally, the barrier analysis indicates that constraints are multi-level and perspective-dependent, and that complementary data collection approaches are needed to make regulatory, institutional and systemic constraints that are less visible more clearly apparent alongside field-level challenges, while recognising that **upstream changes beyond the farm gate are required** to enable and sustain on-farm transition.

Taken together, the evidence presented in this report highlights not only farm-level change, but also the generation of practice-based knowledge that can inform wider understandings of regenerative transition processes. In this context, **the programme lays the groundwork for potential landscape-level action**, as advisory engagement has supported the development of locally adapted regenerative blueprints and testing grounds, documenting farm-level transition pathways and generating transferable learning on how regenerative practices evolve and adjust under real ecological, agronomic and organisational constraints.

While landscape-level outcomes are not assessed within the scope of this report, these early signals point to the emergence of locally anchored communities of practice among farmers and advisors, which may be leveraged to inform and support future landscape-level action. Further **supporting and consolidating territorially embedded reference projects** across distinct climatic zones, bioregional contexts and cropping systems would help clarify where and when specific interventions are most appropriate, depending on farm objectives and positions along gradients of regenerative transition complexity.

Overall, the programme has contributed to the diffusion of locally adapted regenerative practices, strengthened the presence of territorial reference points and farmer-advisor networks, and generated empirical evidence and learning on transition dynamics, outcomes and constraints that can guide future programme design and analytical approaches. Further strengthening linkages between these elements, valorising on-farm knowledge generation, and **connecting farm-level learning to landscape-, value-chain-, and broader market, regulatory and policy initiatives** can enhance both the extent and depth of impact, as well as the potential for scaling regenerative agriculture across Europe.

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