SPRINT Conference

Brussels – 25 June 2025

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SUSTAINABLE PLANT PROTECTION TRANSITION

Transition & Policy Recommendations

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WP7:

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All case study Site leaders and teams

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Why transition away from pesticide dependency towards sustainable agriculture?

- **Stuck in a pesticide-reliant model:** Deeply entrenched use of synthetic pesticides, reinforced by agronomic, economic, political, and institutional barriers
- **Policy efforts are stalling:** Even strong EU targets (e.g., 50% reduction by 2030) face political resistance and fail to gain traction
- **Incremental change is not enough:** Efficiency and substitution measures rarely lead to meaningful system transformation
- **System redesign is needed:** Sustainable agriculture requires changes in farming practices, market structures, governance, and consumer engagement

- **Vision-led transition is possible:** Real-world case studies and stakeholder input show viable paths toward pesticide-free food systems

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Transition approach

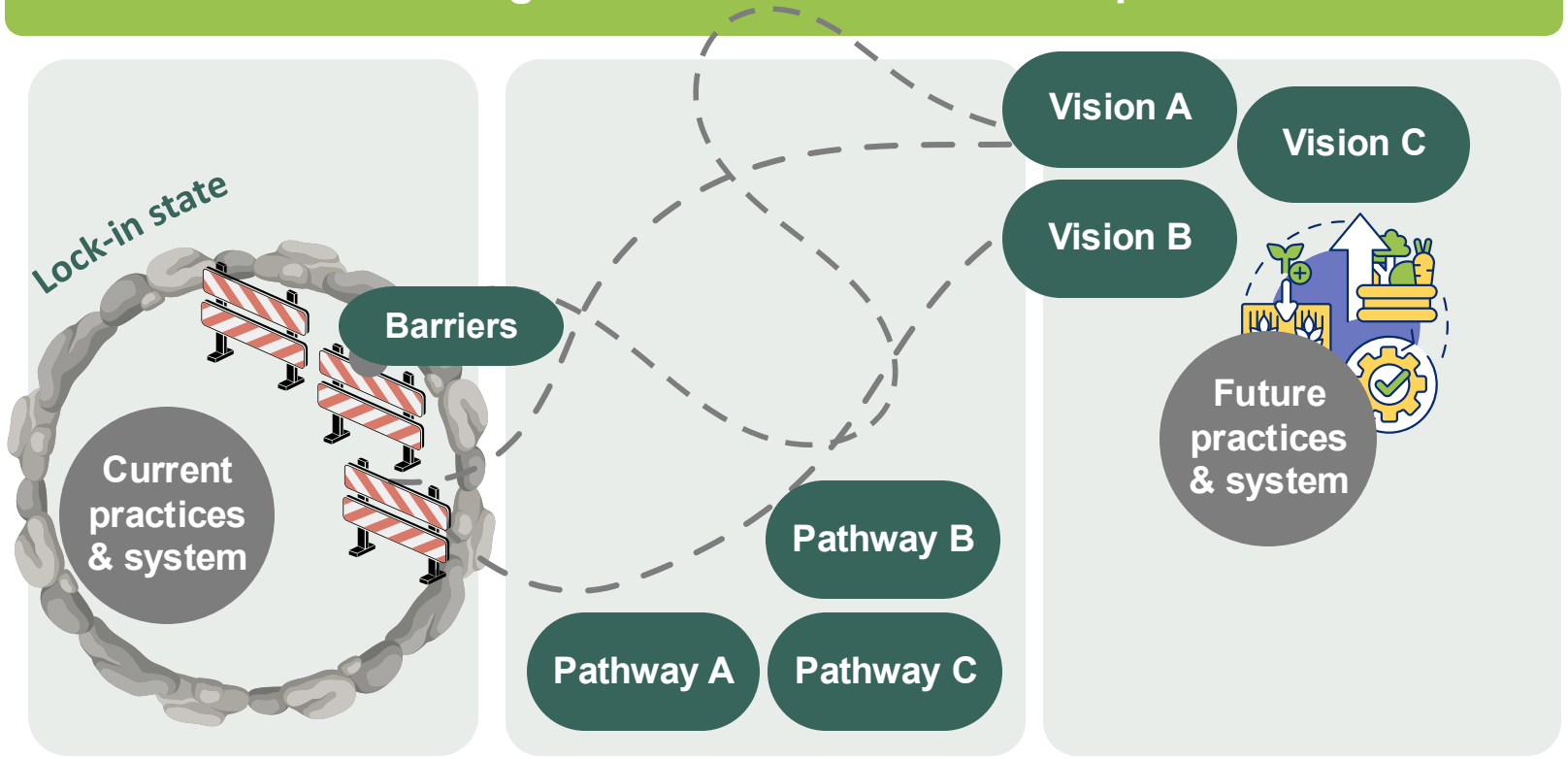
3 Literature reviews

13 EU-level interviews

Farmer survey

13 Success Stories

30 regional Stakeholder Workshops



Policy landscape analysis and recommendations based on results

Co-creating the barriers, visions and pathways

Researchers‘ analysis of enabling conditions

Stakeholders‘ input

DIMENSIONS	LOCK-IN MECHANISMS	BARRIERS
Agronomy & Research	Over-reliance on annual yields as a metric of farm business success	Fit with existing practice, farm and climatic conditions
	Limited research to support transition (including limited data on pesticide use)	Complexity of agro-ecological practices and IPM
Economics	Underlying economic model and market conditions	Uncertain effectiveness of alternatives
	Limited or unavailable market outlets for alternative crops	Potential trade-offs for soil health
	Short-term thinking is used surrounding profitability	Availability and acccess to breeding, crop varieties, machinery and equipment
	Lack of economic certainty = poor generational renewal	Increased production and financial risks for farmers
	Undervaluing of nature and its benefits for farming	Limited financial incentives or support for farmers
Knowledge	Agricultural education doesn't support non-chemical alternatives	Quality rules for agricultural produce
	Lack of independent advisory support and demonstrations	Limited farmer knowledge/skills surrounding alternatives
Policy	Compartmentalised thinking and a lack of coherent policy for supporting systemic transition	Poor implementation of existing legislation, emergency authorisations
	Agricultural exceptionalism and power relations	Piecemeal and incremental patchy policy fixes
Regulation	Use of food security narratives (particularly following the Ukrainian crisis)	Limited availability of alternative products
	Complicated and lengthy authorisation and registration process for new (alternative) products e.g., biocontrol	Quality rules and standardisation that lead to criteria which are difficult to meet without chemical pesticides
Cognitive dimensions	Consumer demand for visually perfect products	Limited awareness of the impacts of chemical pesticides on human/environmental health
	Limited willingness to experiment	

Lock-ins and Barriers to pesticide use reduction

Agronomy & Research
lock-ins and barriers to reducing reliance on synthetic pesticides

BARRIERS

- Fit with existing practice, farm and climatic conditions

- Complexity of agro-ecological practices and IPM

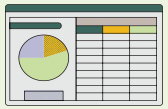
- Limited availability/access to breeding, crop varieties, machinery & equipment

- Uncertain effectiveness of alternatives

- Potential trade-offs for soil health

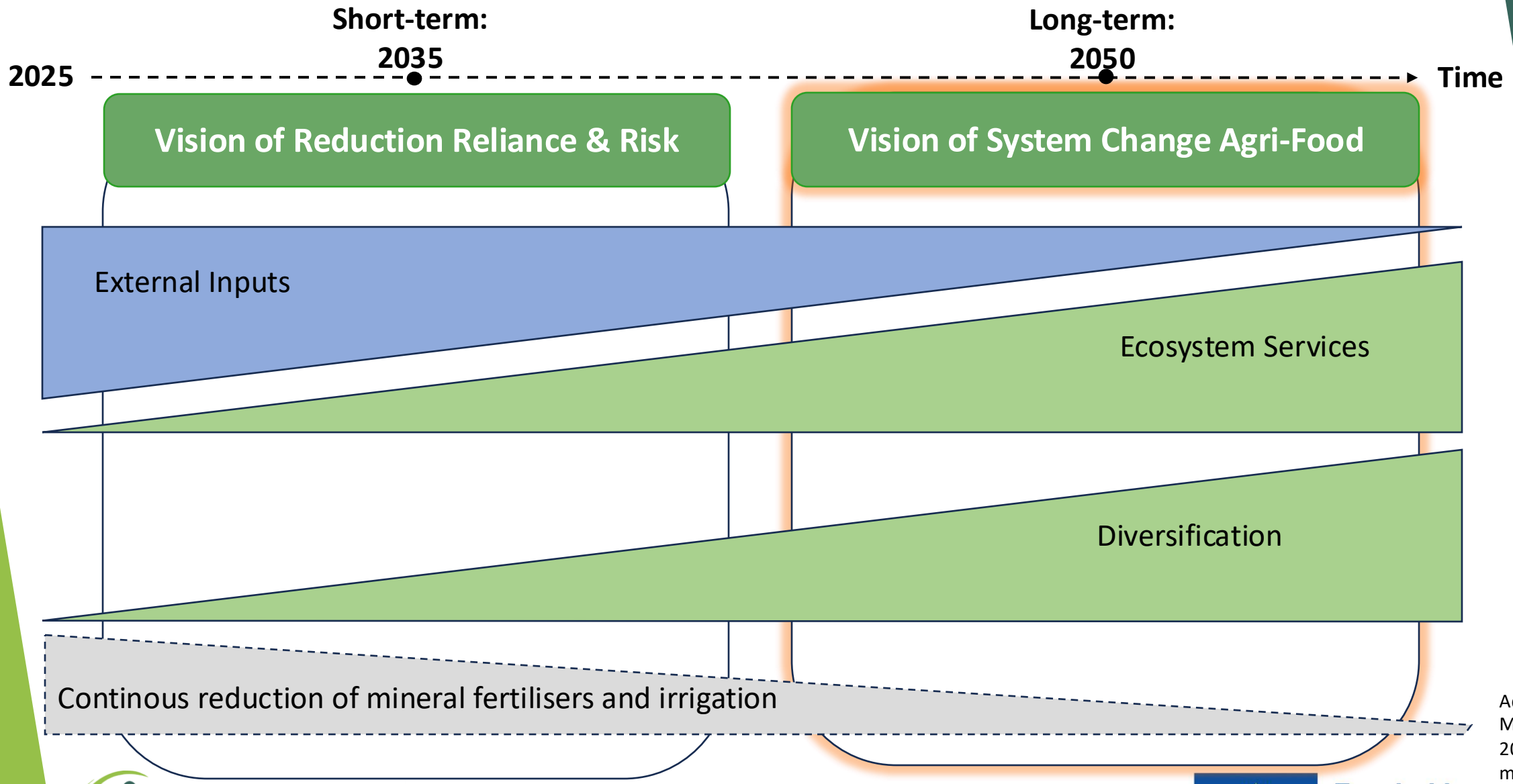
LOCK-IN MECHANISMS

- Over-reliance on annual yields as a metric of farm business success and wellbeing



- Limited research to support transition (including limited data on pesticide use)

Vision: how can the future look like?



Adapted from Mora et al, 2023 with modifications

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Vision: how can the future look like?

Vision of Reduction Reliance & Risk

- Shift to **curative** over preventive methods
- **Substitute** with biocontrol options.
- Employ **mechanical and digital control** methods
- Adapt to **new crops or varieties**

Vision of System Change Agri-Food

- **Resilient, biodiverse farming systems** using biocontrol and ecological practices
- Farms as **ecosystems**, balancing food production and nature
- Farmers empowered by **knowledge, innovation, and choice of options**
- **Fairer local economies** with shorter supply chains
- Policies that ensure **fair income** and reduce corporate influence
- A society that values **ecological responsibility** and sustainable farming

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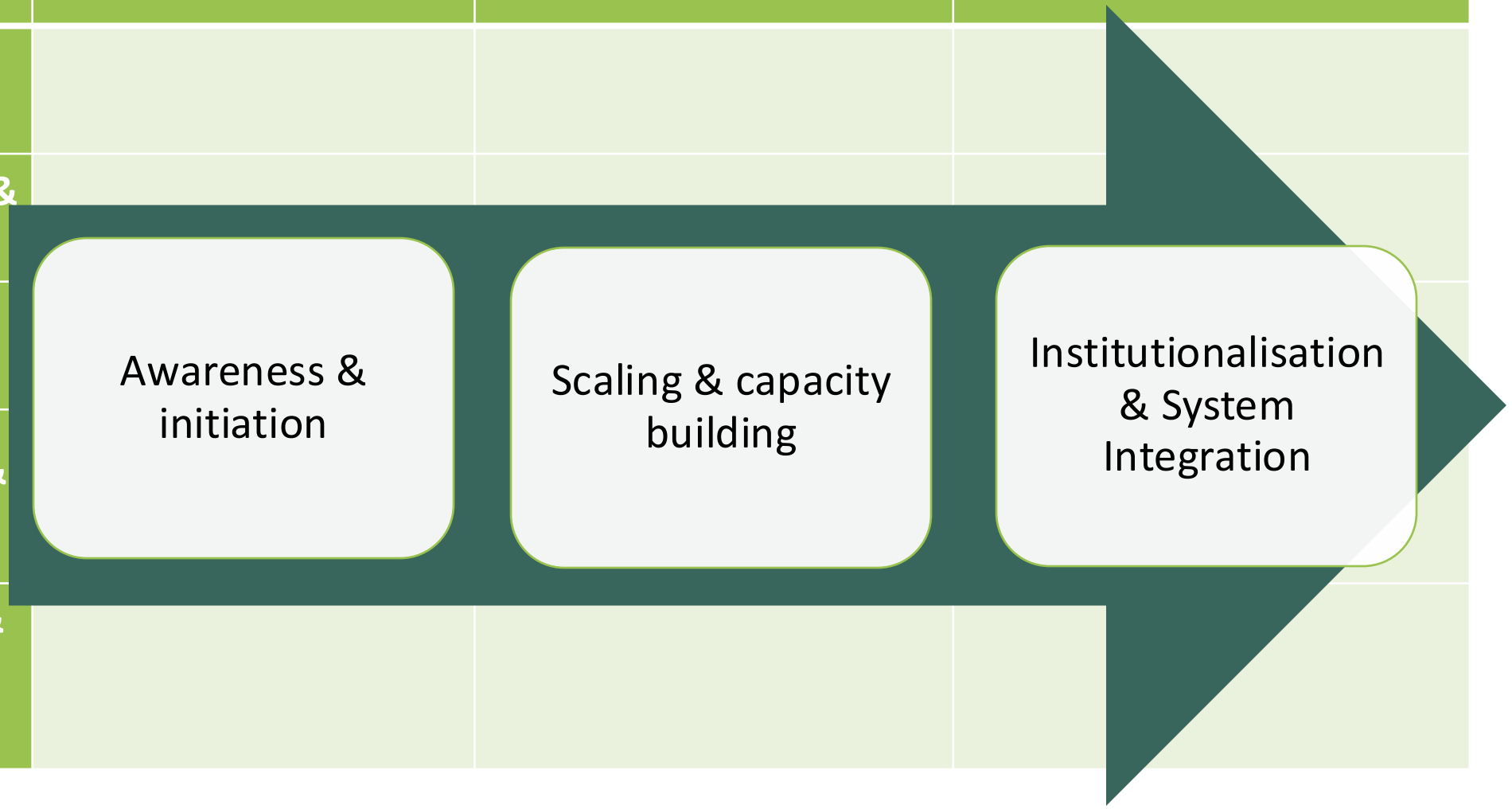
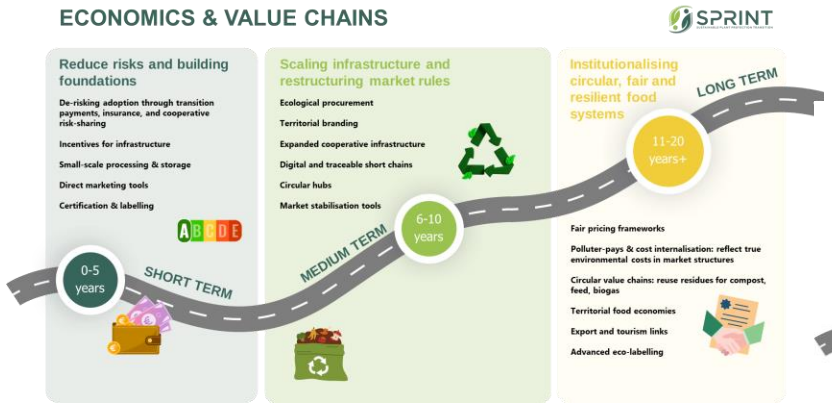
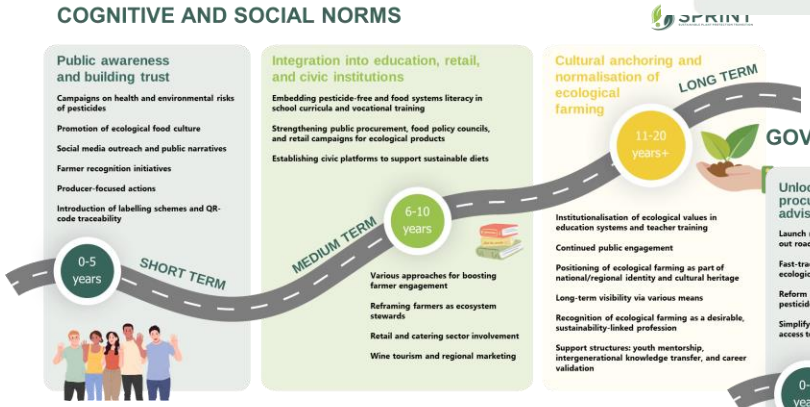
Pathway logic

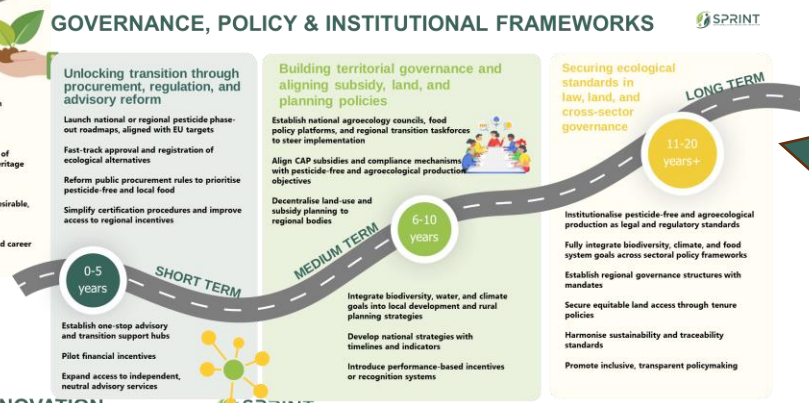
Vision Dimension	Short-term (next 5 years)	Mid-term (6-11 years)	Long-term (11-20 years)
Cognitive & Social Norms			
Agricultural Practices & Innovation			
Economics & value chain			
Knowledge Systems & Research			
Governance, Policy, & Institutional Frameworks			



Pathway logic







10 *CASE STUDY SPECIFIC* + 1 *GENERAL* PATHWAYS

More details will be shared in the final report, available in September

GOVERNANCE, POLICY & INSTITUTIONAL FRAMEWORKS

Procurement, reduction, and advisory reform

national or regional pesticide phase-out roadmaps

Introduced a toxicity-weighted tax on PPPs

Fast-track approval and registration of ecological alternatives

Public procurement reform to prioritise pesticide-free and local food

National registry for alternative practices

0-5 years

SHORT TERM

One-stop advisory and transition support hubs

Expand access to independent advisory services

Supportive frameworks for diverse farm transitions, backed by incentives and grants.

Territorial governance, aligning policies and rural planning

governance platforms and advisory councils to oversee long-term transition

binding sustainability goals in food systems and land management

national agroecology strategies or accords that align actors and funding streams

Local food policy councils connecting municipalities, producers, retail to manage implementation

6-10 years

MEDIUM TERM

Integrate biodiversity, water, and climate goals into local development and rural planning strategies

Decentralise land-use planning (e.g. councils)

Legal standards and cross-sector governance

LONG TERM

11-20 years+

Institutionalise pesticide-free and agroecological production in law and regulation

Fully integrate biodiversity, climate, and food system goals across sectoral policy sectors

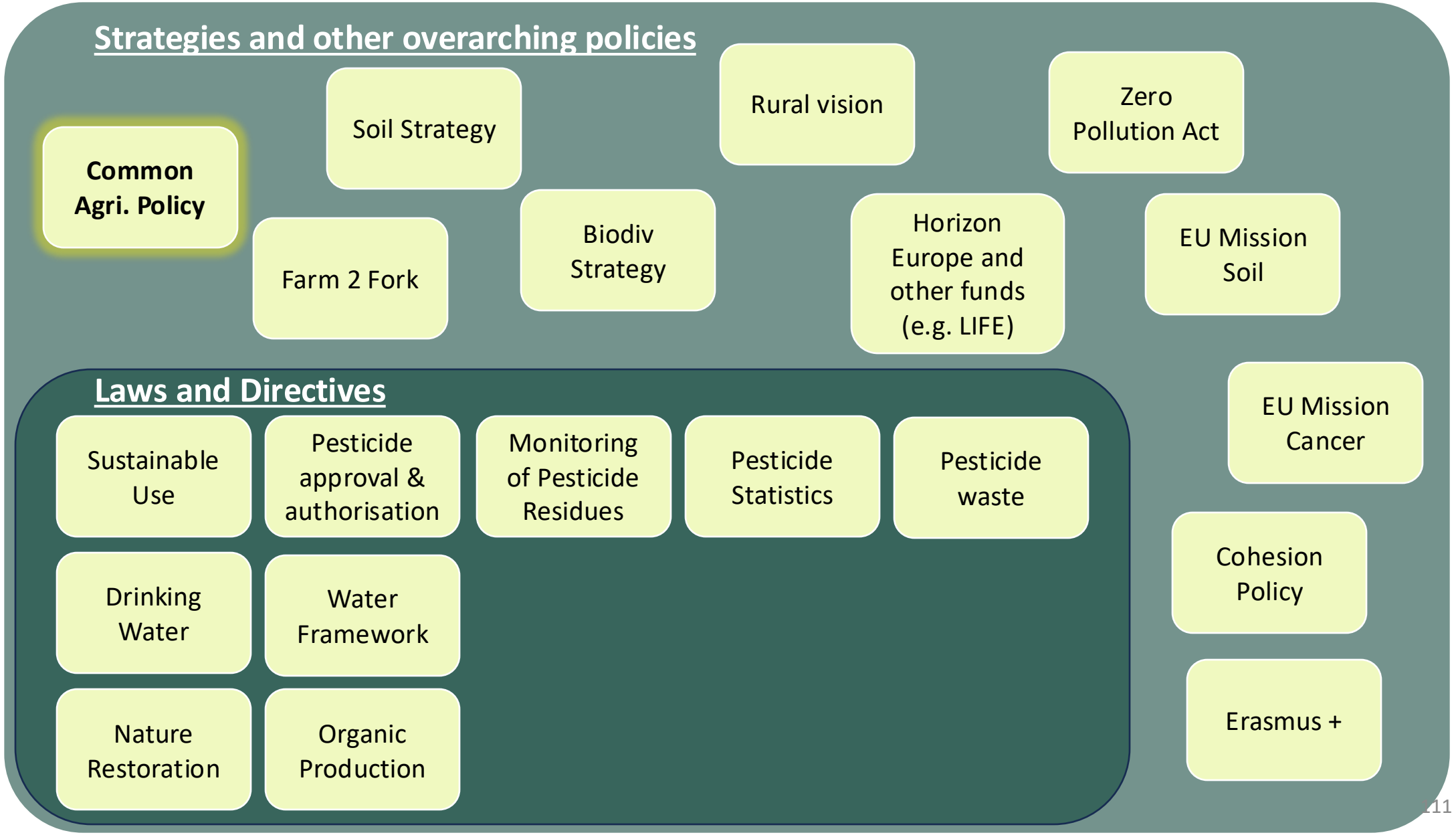
Establish regional governance structures with enforcement roles

ensure equitable land access through tenure policies

Harmonise sustainability and traceability standards

Promote inclusive, transparent policymaking

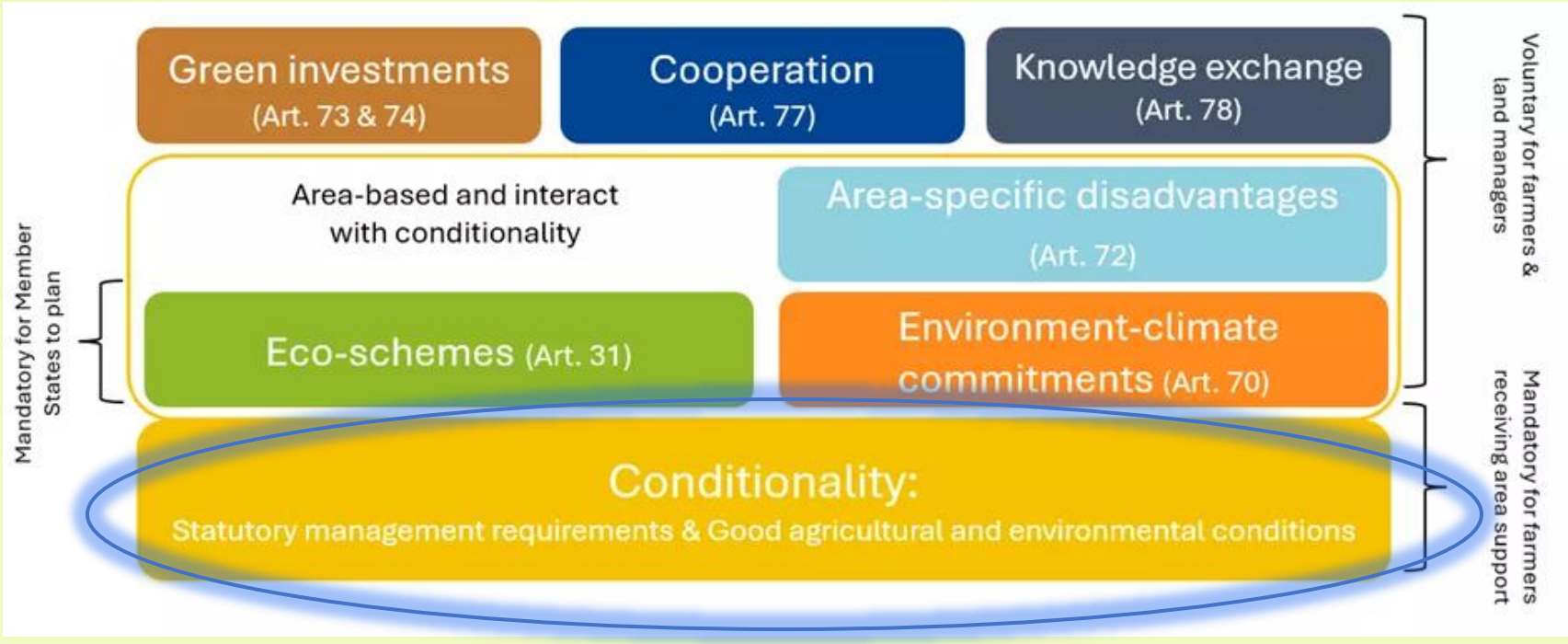
Impacting the transition: policy landscape (non-exhaustive)



Introduction to CAP – a big pathway enabler

- The CAP is the **EU's primary agriculture & land management funding instrument**
- Average **annual budget** of 55 billion €, accounting for **31% of total EC budget** for period 2021-2027
- A new Green Architecture with the preparation of a single CAP Strategic Plan and a new structure of interventions

Common Agriculture Policy



Source: EU CAP Network

Conditionality

- Minimum standards to receive payments:
  - links to regulation and directive (e.g. pesticides authorisation & SUD)
  - EU rules + national requirements
- Good Agricultural and Environmental Conditions (**GAECs**): minimum standards for farming practices with environmental objectives
- Applies to ~ 90% of utilised agricultural area

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Chances and challenges: GAEC & sustainable pest mnmgt

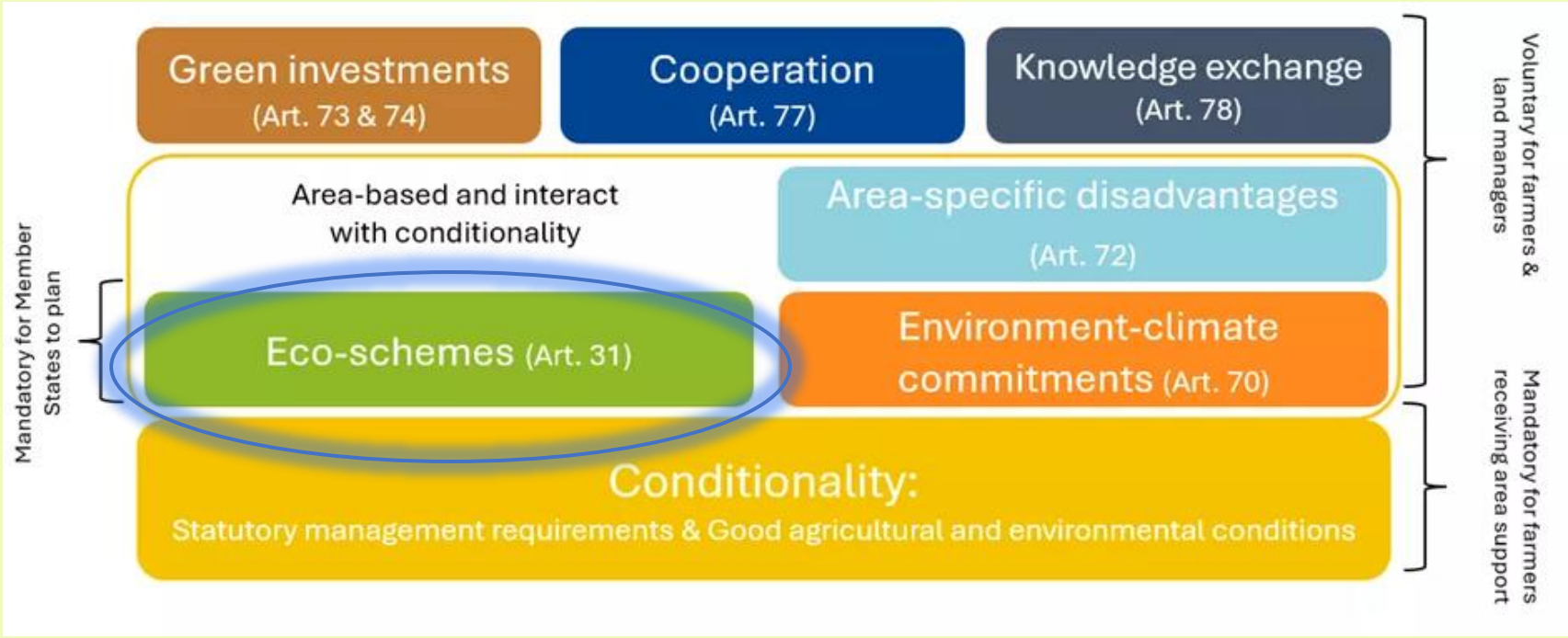
- Organic farms exempted from GAEC 3, 5, 6, 7 compliance checks
  - **Positive for organic uptake**, which generally supports no pesticide use.

- Increased national flexibility in defining GAEC 2–6 standards
  - Possibly better incorporation of specific context. Could **dilute uniform environmental protections**.

- Removal of non-productive area requirement (GAEC 8):
  - **Ecological focus areas** are key for natural pest predators (e.g. beetles, birds).
  - **With less, landscapes may become less diverse**, potentially amplifying pest outbreaks

- Weakened crop rotation (GAEC 7)
  - Rotation is central to interrupting pest cycles. Also, if simplified too far, may encourage monocultures that **rely on synthetic pest control**.

Common Agriculture Policy



Source: EU CAP Network

Eco-schemes

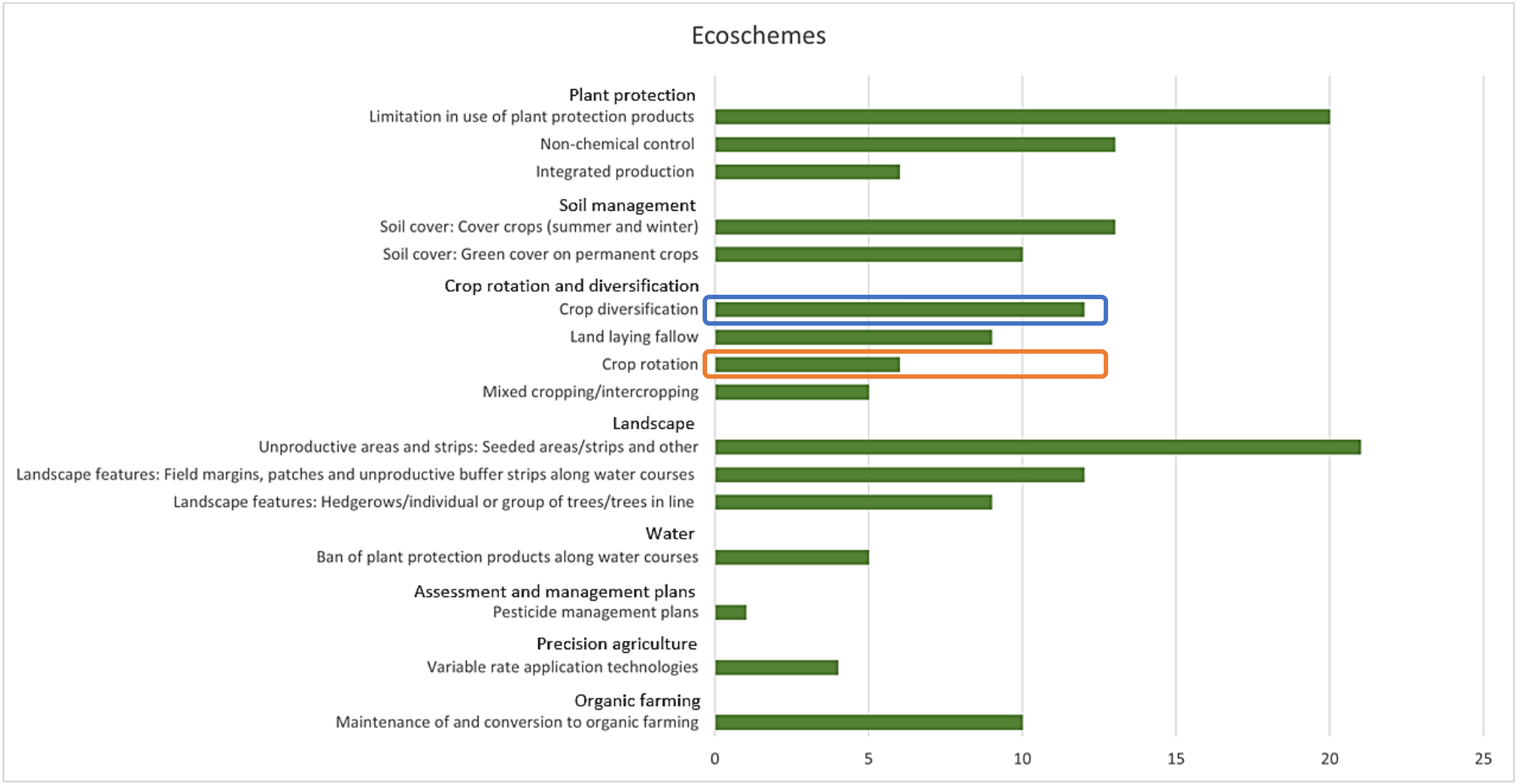
Potential contributions

- Motivate and reward to **go beyond the legal baseline**:
  - adoption of practices that reduce pesticide dependency (e.g. crop rotation, mechanical weeding, biological control)
- Reach a **broad base of farmers** through direct income-linked annual payments

Challenges

- Environmental **effectiveness may be limited due to low entry requirements** and minimal change from previous practices
- Short-term (one-year) commitments **discourage long-term investment** in system-wide pesticide reduction strategies
- Recent derogations from GAEC rules **lower the environmental baseline**, increasing pressure on eco-schemes to deliver real impact

Number of CSPs that support a specific farming practice in at least one eco-scheme intervention



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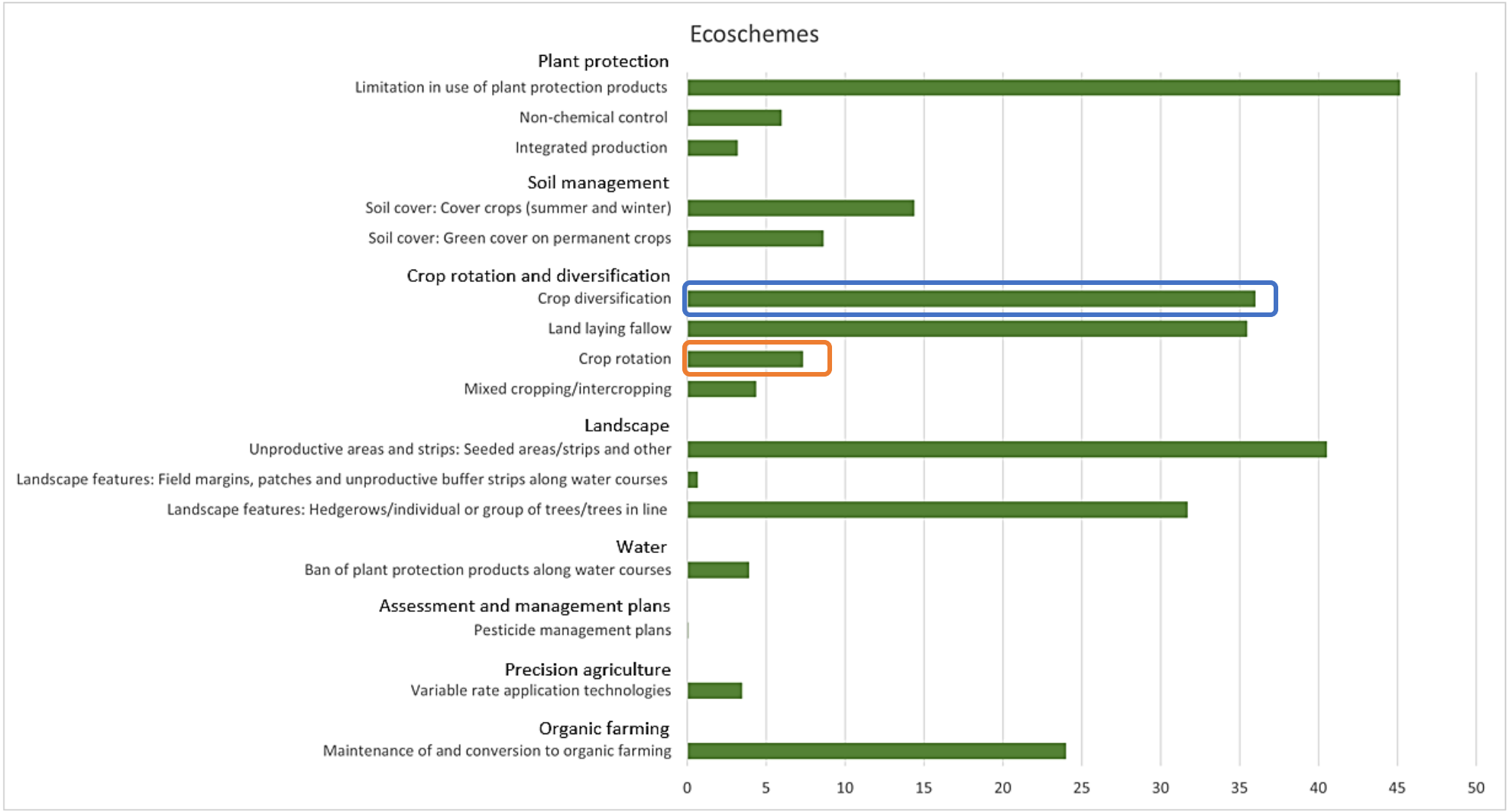
Proportion of MS eco-scheme budget, associated with a specific farm practice



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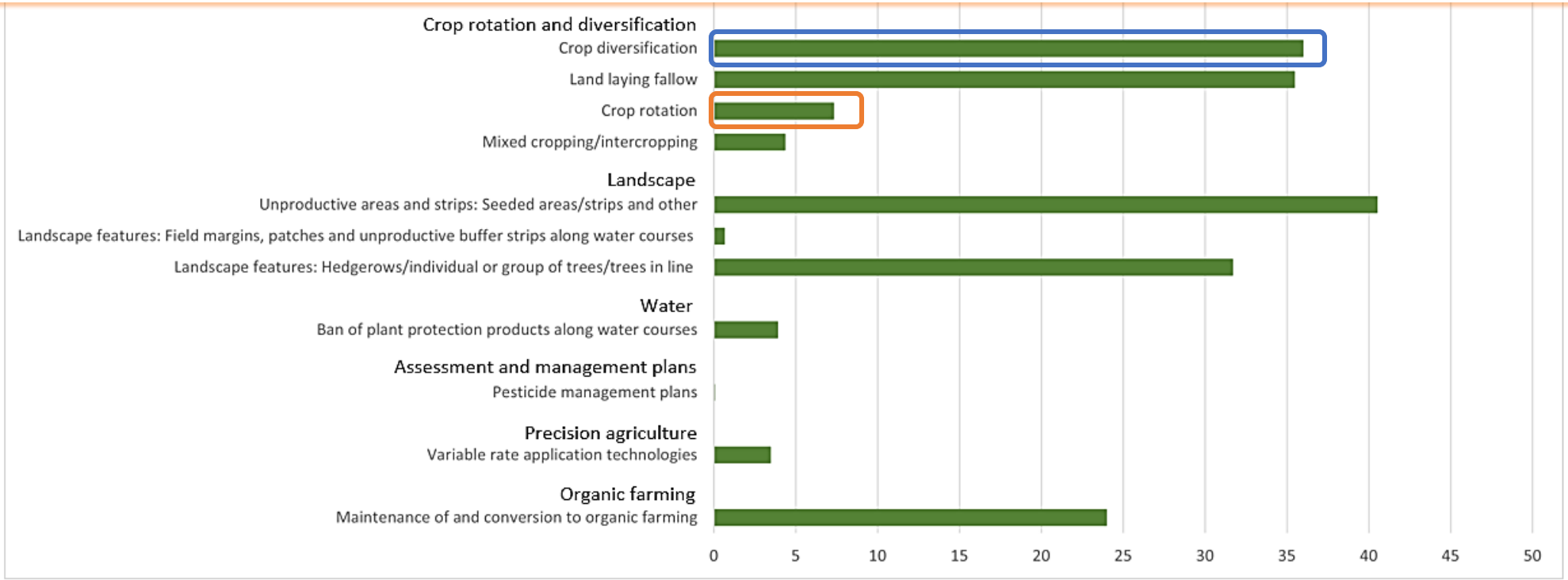
- Observation: Eco-schemes promote **crop diversification**, but not necessarily **genuine crop rotations**.

- While growing different crops on the same field supports soil structure and builds organic carbon (e.g. via legumes), **true rotations** offer greater benefits — including **lower reliance on synthetic pesticides**



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General CAP analysis reflections

More details will be shared in the final report, available in September

- The CAP has **potential** to support the shift toward sustainable pest management

- Yet, emphasis is on the more efficient use of PPPs, supporting targeted landscape features and promoting organic farming
  - **Lack of support for crop rotation, mixed cropping, biological control, low input systems**
  - Design quality varies greatly between MS
  - Complexity for practitioners in overlaps between intervention types

- CAP simplification aims to **reduce bureaucracy for farmers—but may weaken key environmental** safeguards

Future CAP recommendations

More details will be shared in the final report, available in September

Conditionality:

- **Keep high ambitious conditionality:** reinforce GAEC rules on crop rotation (GAEC 7) and non-productive areas (GAEC 8)
- **Integrate pest protection-specific IPM practices into conditionality**

Ecoschemes:

- **Complement GAECS with ambitious Eco-schemes**
  Use eco-schemes to reward alternative practices in pest control, rotations, and habitat support.
- **Incentivise proven methods,** such as: Multi-year crop rotations with functional diversity; Mixed cropping/intercropping; Mechanical and biological weed/pest control; Low-input or pesticide-free systems

Policy recommendations to enable the pathways

(beyond Eco-schemes and Conditionality)

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Selection of SPRINT policy recommendations

More recommendations will be shared in the final report, available in September

- **Ensure legally binding pesticide reduction,** with clear enforcement and national targets pesticide adjusted to MS national context.
- Prioritise **multi-annual support** for e.g. agroecological practices & investments, beyond annual compliance.
- Additionally: **Provide time-bound transitional aid:** cover up-front investment costs (e.g. equipment, training), manage risks during conversion (e.g. yield loss), and ensure just transition support for structurally affected sectors

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Selection of SPRINT policy recommendations

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- **Assess and update national agricultural curricula:** Develop EU-level guidelines and ‘fit-for-practice’ assessment frameworks to ensure national vocational agriculture training content, methods, and educator qualifications match current and future transition needs.

- **Expand and publicly fund independent advisory services** with clear mandates for transition and agroecology through CAP and national instruments

- **Set minimum mandatory food procurement criteria** that go beyond Green Public Procurement (GPP), embedding pesticide reduction, and integrating environmental, social, and health objectives—such as organic/agroecological practices, fair pricing, small producers, and nutrition..

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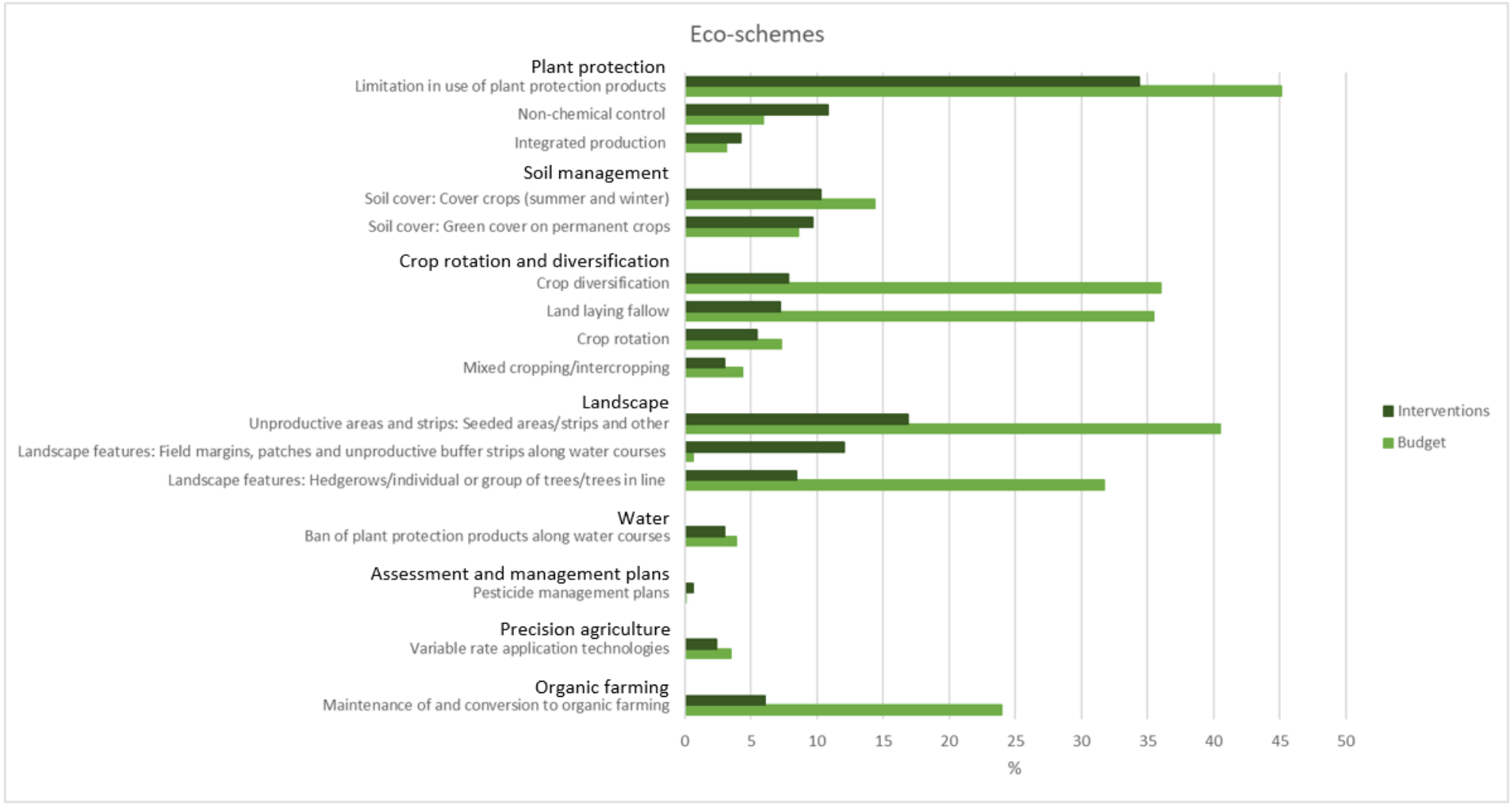
Proportion of eco-scheme budget and count of interventions , associated with a specific farm practice



How do we get there? Pathways towards the vision

Vision dimensions:	Strategic Focus	Concrete implementation:
Cognitive and Social Norms	Changing Mindsets & Culture	How people **think and feel** about farming, food, and nature.
Agricultural Practices and Innovation	Smarter, greener Farming	Practical **on-farm actions** and **research results** that cut chemicals and boost resilience.
Economics and Value chain	Fair & Supportive Markets	The **financial and trading side** of farming: prices, incentives, and income security.
Knowledge Systems and Research	Shared Learning & Research	Ways how we **create and spread know-how** together.
Governance, Policy, and Institutional Frameworks	Rules & Support	The **policies and institutions** that make change possible (excluding financial ones).

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