REPORT ON CO-DESIGNED IMPROVED OR NEW DECISION-MAKING TOOLS

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Report on co-designed improved or new decision-making tools

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Acronyms

AbL	Working group for peasant agriculture (DE)
BMEL	Federal Ministry of Food and Agriculture (DE)
BMUV	Federal Ministry for Environment, Nature Conservation and Nuclear Safety (DE)
BRT	Better Regulation Toolbox
BUND	German Federation for the Environment and Nature Conservation (DE)
CAP	Common Agricultural Policy
CDE	Communication, Dissemination and Exploitation
CSP	CAP Strategic Plans
CV	Cumulative Voting
EAFRD	European Agricultural Fund for Rural Development
EAGF	European Agricultural Guarantee Fund
EC	European Commission
EGD	European Green Deal
EU	European Union
FADN	Farm Accountancy Data Network
IL	Intervention Logic
IOI	Intervention-Objective-Impact (matrix)
JRC	Joint Research Centre of the European Commission
LEADER	Liaison Entre Actions de Développement de l'Économie Rurale
LAG	Local Action Group
MAP	Multi-Actor Platform
MAPP	Method for Impact Assessment of Programmes and Projects
MCA	Multi-Criteria Analysis
MS	Member State
NDM	New Delivery Model
NGO	Non-governmental Organisation
PIA	Policy Impact Assessment
PMEF	Performance Monitoring and Evaluation Framework
RDP	Rural Development Programme
SDG	Sustainable Development Goal
SMART	Specific, Measurable, Achievable, Relevant, and Time-Bound (goals)
SMCE	Social Multi-Criteria Evaluation
SP	Strategic Plan
SWOT	Strengths, weaknesses, opportunities, and threats
Tools4CAP	Innovative Toolbox empowering effective CAP governance towards EU ambitions
UAA	Utilised Agricultural Area
VBWG	Vision Building Working Group
WG	Working Group
WP	Work Package

Implementation guidelines for informed decision-making tools

Participatory vision building

Process communication & stakeholder engagement

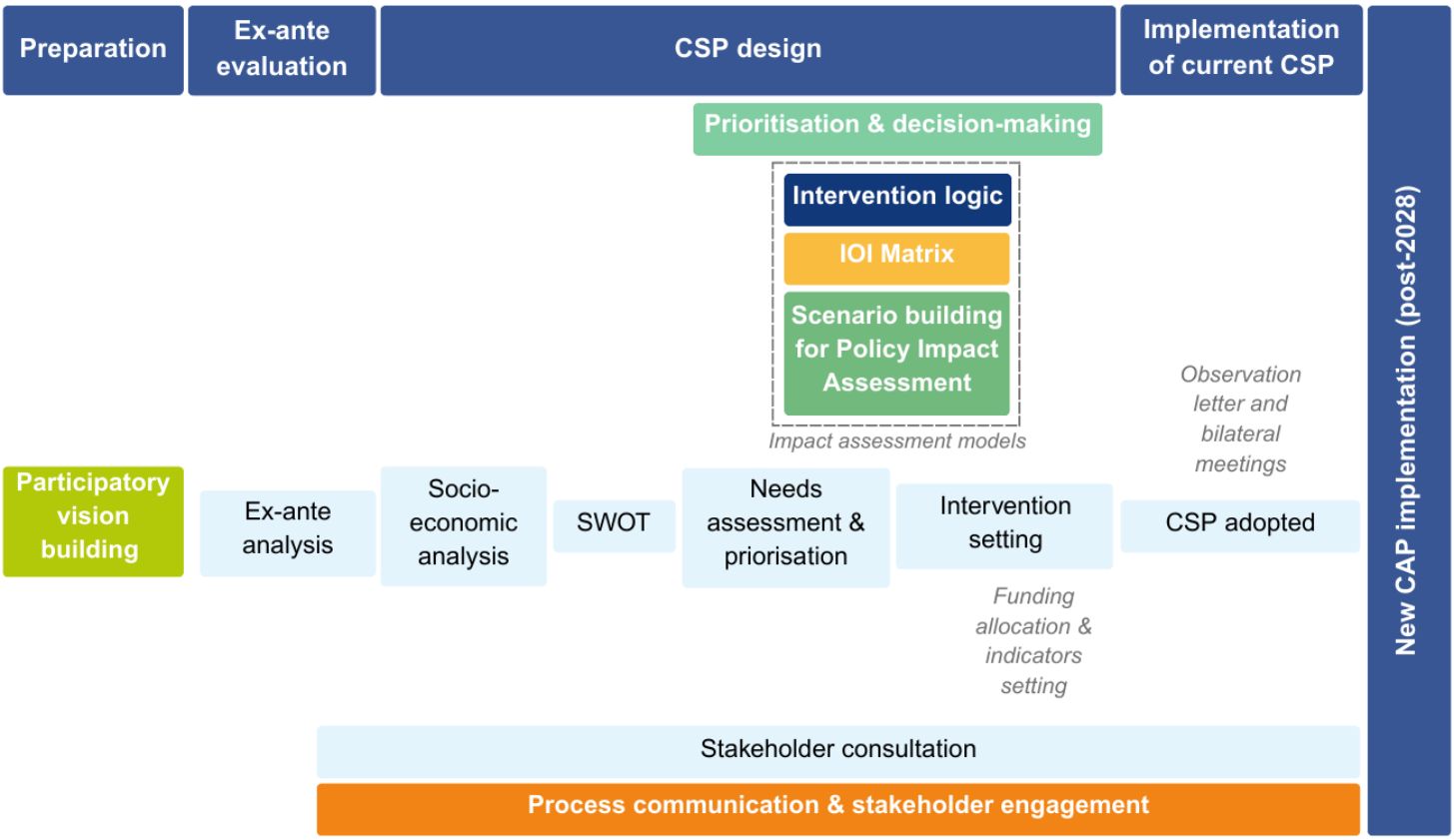
Prioritisation & decision-making

Intervention logic

Intervention-Objectives-Impact (IOI) Matrix

Scenario building for Policy Impact Assessment

TIMING OF CO-DESIGNED TOOLS AND APPROACHES IN THE CSP DESIGN PROCESS



PARTICIPATORY VISION BUILDING

PURPOSE: It fosters **inclusive governance** by ensuring that all relevant stakeholders have a voice in **public consultation** regarding the desirable future of agriculture, rural areas, and environmental protection.

KEY PROCESS ELEMENTS:

- Engaging stakeholders using the **Quadruple Helix model** and **Stakeholder Salience Model** to ensure diverse representation.
- Applying the **Delphi method** to facilitate structured discussions and **co-develop a shared vision**.

CHALLENGES ADDRESSED:

- **Complexity** of CAP policy documents.
- **Limited diversity** in stakeholder representation and consultation.
- **Transparency** gaps in decision-making processes.

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PROCESS COMMUNICATION & STAKEHOLDER ENGAGEMENT

PURPOSE: It provides **practical guidance** for Member States to conduct **effective, transparent, and inclusive stakeholder engagement** throughout the design and implementation of CAP Strategic Plans.

KEY PROCESS ELEMENTS:

- Mapping **existing stakeholder networks** and assessing their roles and influence.
- Creating an **inclusive participation plan** to ensure balanced representation in consultations.
- Developing **clear communication strategies** to translate CAP priorities into accessible formats.
- Integrating **stakeholder feedback** into CAP Strategic Plans and ensuring **continuous dialogue** through engagement activities.
- Establishing **evaluation mechanisms** to assess consultation success and improve future engagement efforts.

CHALLENGES ADDRESSED:

- Difficulties in coordinating **multi-level CAP governance** structures.
- **Lack of transparency** in decision-making and stakeholder consultation results.
- **Limited consultation time** and uncertainty over the best timing for engagement.
- **Weak integration** of stakeholder knowledge into policy design.

PRIORITISATION & DECISION-MAKING

PURPOSE: It helps policy-makers **prioritise key needs in the design and implementation** of CAP Strategic Plans using scientific, transparent, and time-efficient methods. It ensures the **efficient allocation of resources** and enhances **stakeholder involvement** in decision-making.

KEY PROCESS ELEMENTS:

- Combining **SWOT analysis** with expert input to refine CAP **intervention priorities**.
- Establishing **criteria for prioritisation**, linking stakeholder needs with CAP objectives.
- Selecting **cost-effective prioritisation methods**, ensuring transparency in resource allocation.
- Facilitating **stakeholder participation** to ensure that the **prioritisation process** is inclusive and aligned with local realities.

CHALLENGES ADDRESSED:

- Ensuring **balanced stakeholder representation** and addressing regional disparities.
- **Limited time** for thorough prioritisation and policy analysis.
- Addressing **conflicting policy priorities** while maintaining **alignment with CAP strategic goals**.

INTERVENTION LOGIC

PURPOSE: It provides a **critical framework in strategic planning** to develop effective, **evidence-based CAP interventions** by mapping the relationships between inputs, activities, outputs, and impacts.

KEY PROCESS ELEMENTS:

- Defining **strategic CAP objectives** and aligning them with broader EU policy goals.
- Identifying **specific challenges and opportunities** through evidence-based assessment.
- Mapping **intervention pathways** and defining **SMART indicators** for monitoring and evaluation.
- Engaging stakeholders in refining **implementation strategies** and ensuring adaptability.

CHALLENGES ADDRESSED:

- **Strengthening** evidence-based decision-making and resource allocation.
- Enhancing **policy transparency and accountability**.
- Ensuring **consensus-building** among diverse stakeholders.

INTERVENTION-OBJECTIVES-IMPACT (IOI) MATRIX

PURPOSE: It enhances agricultural policy-making under the CAP by **breaking down complex objectives** into targeted interventions, ensuring a **logical framework** for implementation and assessment.

KEY PROCESS ELEMENTS:

- **Identifying key CAP objectives** and linking them to potential interventions.
- Developing **alternative policy scenarios**, analysing trade-offs and feasibility.
- Establishing a **monitoring and evaluation system** to track impact.
- Supporting **adaptive policy-making** through continuous review and stakeholder input.

CHALLENGES ADDRESSED:

- Ensuring **coherence** between CAP objectives, interventions, and measurable impacts.
- Supporting **policy flexibility** in response to **emerging challenges**.
- Addressing **stakeholder concerns** through transparent policy rationale.

SCENARIO BUILDING FOR POLICY IMPACT ASSESSMENT (PIA)

PURPOSE: It provides a **structured method** to assess the potential **economic, environmental, and social impacts** of different interventions.

KEY PROCESS ELEMENTS:

- Developing **baseline and alternative policy scenarios** for CAP interventions.
- Applying **quantitative and qualitative assessment models** (e.g., impact simulation).
- Evaluating the **trade-offs between policy options** and selecting optimal interventions.
- Ensuring **continuous stakeholder engagement** in impact assessment.

CHALLENGES ADDRESSED:

- Ensuring **evidence-based decision-making** while considering **national contexts**.
- Maintaining **transparency** in policy trade-offs and stakeholder involvement.
- Strengthening **accountability in CAP policy-making**.

Executive summary

The Tools4CAP project addresses the evolving requirements of the Common Agricultural Policy (CAP) under the New Delivery Model (NDM), aligned with the European Green Deal (EGD) and various sustainability strategies. The project aims to equip CAP decision makers with innovative tools to enhance evidence-based policy-making, ensuring alignment with EU sustainability goals, improved monitoring, and stakeholder engagement.

Member States (MS) face increased responsibilities under the new CAP framework, necessitating new capabilities and methodological tools to align with CAP, EGD, and Sustainable Development Goals (SDG) objectives. They must enhance sustainability ambitions, ensure coherence and accountability through SMART targets, engage stakeholders effectively, simplify and modernize processes, and ensure cost-effectiveness.

The Tools4CAP project focuses on five specific objectives to support MS. First, it aims to evaluate and share methods and tools for CAP Strategic Plan (CSP) design and implementation, creating a robust knowledge base. Second, it seeks to adapt and identify innovative tools from recent research and EU initiatives, bringing cutting-edge methods into the policy-making process. Third, the project is dedicated to empowering end users by providing methodological guidance for adopting these innovative solutions. Fourth, through the establishment of a Replication Lab, Tools4CAP will demonstrate and test methods and tools across various case studies to ensure their practical applicability. Finally, the project aims to set up a capacity-building hub to facilitate knowledge transfer and mutual learning among stakeholders, enhancing overall capabilities for CSP design and implementation.

Work Package 3 (WP3) outlines guidelines for integrating ex-ante modelling tools with participatory approaches, enhancing CSP design and stakeholder engagement. The primary objective of Task 3.2 is to develop new or improved methods to address challenges in CSP design and stakeholder engagement, thereby increasing the quality of outcomes.

The methodology involves a structured selection process to identify core challenges and suitable tools through literature searches and previous findings. The criteria for selecting tools include innovation, improved outcomes, adaptability, suitability across contexts, and feasibility. A co-design approach is employed to foster ownership, transparency, and inclusivity in policy-making through iterative feedback and collaboration. The co-design approach offers numerous benefits, such as enhanced policy outcomes and trust through inclusive, user-centred design, continuous refinement based on stakeholder feedback, and collaborative problem solving that fosters commitment to the final products.

The choice of tools in the CSP design process is informed by the Tools4CAP report on decision-making challenges in the CAP design (Sterly et al. 2024). Based on insights from 12 focus groups, a literature review across 18 MS, and an EU-level online survey, the report identifies five main challenge clusters: data coverage, availability, and relevance; complex multi-level governance of the CAP; lack of capacities; lack of accountability and transparency; and obstacles to evidence-based policy-making.

Challenges from the multi-level governance complexity and timing issues are most prevalent. Transparency issues, complex CAP documentation, and technical problems are frequently cited. Coordination between national and regional levels is particularly problematic in MSs with strong regional authorities. Challenges are significant in ex-ante analysis, need assessment, SWOT (strengths, weaknesses, opportunities and threats) analysis, intervention setting, and indicator monitoring phases. Multi-level governance complexity impacts these stages, while lacking capacities affect the intervention setting phase.

The report recommends new methods focusing on transparency, accountability, and impact assessment, including participatory vision building, which addresses complex CAP documentation, stakeholder diversity, and consultation transparency. This method utilizes the Delphi method for expert consensus and employs the Quadruple Helix approach and Stakeholder salience model for stakeholder engagement. Focus groups ensure objective expert selection and consultation process transparency.

The project has agreed on six themes for co-design, including (1) *Participatory vision building, (2) Process communication and stakeholder engagement, (3) Intervention-Objectives-Impact (IOI) matrix, (4) Intervention logic, (5) Prioritisation and decision-making, and (6) Scenario Building for Policy Impact Assessment (PIA).* Working groups from various MS developed practical implementation guidelines for each tool, ensuring clarity, resource requirements, and applicability across different expertise levels.

The goal of the ***Participatory vision building*** tool is threefold: first, setting the scene for an effective stakeholder engagement on the CSP design process; second, setting the common objectives and visions among different

stakeholders for agriculture, rural areas, and environmental protection; and third, supporting the SWOT analysis and needs identification, assess and prioritization. The *Participatory vision building* tools consists of three interrelated methods: a 6-step Delphi method, the Quadruple Helix approach, and the Stakeholder salience model. The tripartite coherence of the method is effective in addressing the primary obstacles beforehand the CSP co-design. To address the extensive size and intricacy of the CAP and its related documents, the Delphi technique is employed. This method provides a structured approach for collecting, analysing, organizing, prioritizing, reviewing, and verifying pertinent information, as well as building consensus / harmonizing different perspectives. The diversity of the involved stakeholders and sufficient extent of consultation are ensured by combining the Quadruple Helix approach (an expert team consisting of representatives from the policy, society, business, and research sectors), and the Stakeholder salience model (selection of experts for consultation is based on their urgency, legitimacy and power to impact the creation of rural development agendas in their respective fields of competence). The transparency of decision-making processes and consultation results is achieved through the implementation of an objective expert selection methodology and the focus group method for consultation. The suggested timeframe for one *Participatory vision building* cycle is around 12 months. There are three primary categories of stakeholders of this tool, referred to as end-users: policy and programme designers and implementers, interest group representative bodies, and actors on the ground (potential and actual beneficiaries and participants in CAP projects, with farmers and land managers at the forefront).

These Guidelines for ***process communication and stakeholder engagement*** include principles and possible steps to improve transparency of the CSP-design process and stakeholder engagement. They encompass (1) more general considerations in terms of levels of participation, understandings of consultation and roles of stakeholders, as well as (2) specific implementation tools for process communication and engagement of stakeholders.

These general considerations will enable end users to elaborate their own approach to the stakeholder consultation in their specific regional context. This encompasses guidance on taking stock of existing stakeholder networks, capacity building of ministry staff and stakeholders, including relevant stakeholder groups, clarifying roles of stakeholders in the process, the scope of the consultation as well as timelines and formats. Such considerations will consider specifications for the funding period of the CAP in terms of stakeholder engagement.

The specific tools will outline different pathways to implement process communication and stakeholder engagement. This includes digital platforms based on existing approaches (e.g., Otakantaa.fi, E-Savjetovanje) as well as analogue versions that replicate functions of digital formats. These will enable end users to communicate consistently with stakeholders (and the broader public) throughout the CSP design and monitoring process. This specifically includes decision-making processes, timelines and consultation results. Meaningful engagement of stakeholders heavily relies on communicating what impact the consultation had on the process. Transparency on the integration of knowledge gained through consultations as well as ex-ante evaluations and other policy steps helps stakeholders understand the process and gain a sense of ownership. Moreover, the tools will outline ways to gather data from stakeholders and the broader public, especially considering broad societal objectives of the CAP.

The ***prioritisation and decision-making tool*** will be used to prioritise needs in the CAP Strategic Plans with balanced participation of representatives of different stakeholder groups in agricultural and rural development. The proposed tool, therefore, will have the character of a multi-step process in which, in the first step, the needs expressed by the various stakeholders in agricultural policy will be assigned to the previously defined specific objectives of CAP. A matrix of interrelationships between individual needs will allow their initial optimisation by eliminating revealed cases of over-represented needs and minimising cases of mutually exclusive needs. In this process, agricultural policy experts will have a decisive role. The next stage of prioritisation of needs will consist in the distribution of the defined pool of points to individual needs by the target beneficiaries of the CAP. A special feature of this procedure is the clearly defined leading stakeholder group – a committee – responsible to rank the needs with a clearly defined and transparent procedure. These needs are identified through visioning exercise and SWOT analysis.

As defined by Macleod (2016), ***intervention logic*** is 'the logical link between the problem that needs to be tackled (or the objective that needs to be pursued), the underlying drivers of the problem, and the available policy options […] to address the problem or achieve the objective.' It serves both as a communication tool, facilitating discussion among different parties, and an analytical tool, identifying relationships and dependencies based on certain assumptions (ibid.), outlining the expected logic of an intervention or chain of events leading to the intended change (EC 2023). An impact assessment, monitoring, and evaluation of a policy should rely on the same *intervention logic*; in assessing a policy, the results of a policy intervention should be judged in comparison to the policy's stated objectives and challenges that it is meant to address (ibid.). Establishing a consistent *intervention logic* involves

implementing a robust process of CSP design (diagnostic and context analysis; SWOT analysis and territorial needs assessment, prioritisation of needs, and a strategy to integrate interventions and targets), whose steps must be adequately defined using clear and transparent methods and with the recommended use of participatory approaches (Cagliero et al. 2022).

Intervention logic is used to improve the planning (from design to implementation), monitoring, and evaluation of interventions by providing a clear framework for understanding how an intervention is expected to lead to desired changes. It is also useful in helping stakeholders develop agreement (or compromise) on objectives and methods, supporting the development of useful performance indicators, and identifying policy successes or failures.

The complexity in using *intervention logic* lies in its requirement for a considered assessment of circumstances; this requires adequate data and/or expert knowledge, as well as a good level of familiarity of the planners' part with the problem area. That said, the approach is a useful tool in reducing complexity by structuring thinking about a problem.

The main precondition for effective *intervention logic* is therefore a good understanding of the context in which an intervention operates, including the wider system or environment that may affect the intervention's outcomes and impacts in the short, medium and long term.

The ***Intervention-Objective-Impact (IOI) matrix***, within the context of the governance of the CAP and the design of the Common Strategic Plan (CSP), unfolds across multiple dimensions to achieve its overarching goals.

At its core, the *IOI matrix* is designed to facilitate structured decision-making by policymakers within the CAP framework. It achieves this by organizing objectives, interventions, and their impacts into a clear and coherent framework. This structured approach allows policymakers to systematically analyse and prioritize policy options based on their effectiveness and cost-effectiveness in addressing key challenges within the agricultural sector.

One dimension of the *IOI matrix* is its emphasis on participatory decision-making. Recognizing the diverse range of stakeholders involved in agricultural policy, the matrix provides a platform for stakeholder engagement throughout the policy design process. By soliciting input from farmers, environmentalists, researchers, and other relevant actors, the matrix ensures that policy decisions reflect a broad consensus and incorporate diverse perspectives and priorities.

Transparency and accountability are also central dimensions of the *IOI matrix*. Through its clear and transparent framework, the matrix enables policymakers to justify their decisions based on evidence and best practices. By elucidating the rationale behind interventions and the criteria guiding their evaluation, the matrix enhances transparency in decision-making processes within the CAP framework. This transparency not only fosters trust and confidence among stakeholders but also promotes accountability by making policymakers answerable for their decisions.

Another dimension of the *IOI matrix* is its focus on evidence-based policy development. By grounding policy decisions in rigorous analysis of data and research, the matrix ensures that interventions are informed by empirical evidence and aligned with the objectives of the CAP and the CSP. This evidence-based approach enhances the effectiveness and efficiency of agricultural policies, ultimately contributing to the achievement of broader societal goals such as sustainability, economic viability, and social equity.

Scenario Building for Policy Impact Assessment **(PIA)** is a method that helps decision-makers evaluate the potential effects of proposed policies, projects, or interventions. This approach is especially useful for designing CAP Strategic Plans at the MS level within the European Union. By understanding the likely outcomes of their decisions before implementation, policymakers can enhance strategic planning and make evidence-based decisions. PIA aims to identify both positive and negative outcomes to inform policymakers, allowing for amendments to address any shortcomings. PIAs often focus on specific policy areas or objectives and involve quantitative modelling, qualitative analysis, stakeholder consultations, and expert judgment.

Scenario analysis, a specific form of PIA, involves constructing potential future scenarios to explore the impacts of various policy options. This method helps in understanding implications, risks, opportunities, and trade-offs, aiding in strategic planning and decision-making. In the context of CAP, scenario analysis helps establish different policy scenarios, providing a basis for assessing their impacts. This process can be applied at both the MS and regional levels, involving varied combinations of interventions and budget allocations.

Conducting a *PIA using scenario building* offers several benefits. It enables evidence-based decision-making, aligning national strategies with EU frameworks, and increases transparency by revealing potential trade-offs between objectives. Involving stakeholders improves policy design and builds broader support, while PIA holds

policymakers accountable by documenting the rationale behind decisions. Scenario analysis identifies vulnerabilities and opportunities and aids in strategic planning by recognizing and prioritizing new objectives. It also delivers more robust policies by exploring consequences and refining interventions.

The PIA process involves several phases: preparatory, scenario building, and scenario analysis. Policymakers define objectives, assess methods, determine research capacities, and decide on stakeholder involvement. Scenarios are built around baseline and alternative futures, incorporating diverse perspectives. Quantitative and qualitative methods evaluate impacts, comparing baseline and scenario outcomes. Mitigation strategies and reporting measures are proposed to enhance positive impacts and mitigate negative ones. PIA is a valuable tool for evidence-based policy design within the CAP framework. It helps policymakers navigate complex environments, predict outcomes, and make informed decisions by evaluating the impacts of different policy options. This method enhances transparency, stakeholder engagement, accountability, and strategic planning, leading to more effective and resilient policy frameworks.

In the next step of this WP - Task 3.3 – the co-designed implementation guidelines for six approaches/tools will be rigorously assessed to ensure their alignment with the new CAP implementation model and principles of good governance. Following the assessment, the technical protocols will be integrated into the methodological guidelines, which will be applied and refined in case studies under WP5. Comprehensive roadmaps for the uptake of specific tools in MS will be developed based on insights from WP1 and previous tasks in WP3. The finalized *Decision-Making Tools Methodological Guidelines* (D3.3) will incorporate best practices and be completed by December 2024, with updates informed by practical experiences from WP5 case studies and WP6 stakeholder focus groups. Coordination with Tasks 5.2, 5.3, and the preparation of Communication, Dissemination and Exploitation (CDE) materials under WP6 will ensure successful implementation and continuous improvement of the tools, fostering effective policy implementation and good governance.

1. Introduction

1.1. Why Tools4CAP

In the context of a changing CAP, the New Delivery Model (NDM) established in the Regulation EU 2115/20211 introduces the CSPs and new monitoring, review and evaluation requirements. In 2019, the European Commission (EC) launched the European Green Deal (EGD) including the Biodiversity Strategy, the Farm to Fork strategy, the Soil and Forest Strategy and the Climate Adaptation plan and set up sustainability targets to achieve mostly by 2030, also through the CAP. The new CAP comes with a performance-oriented rather than compliance-based approach, more responsibilities and flexibility for MS for the design of the CSPs and the monitoring framework, as well as a new policy cycle entailing exchange and coordination with the EC.

MS are called to acquire new capabilities and set up proper methodological tools to ensure (i) alignment with the CAP, GD and SDGs objectives and international commitments; (ii) increased sustainability ambition compared to the previous programming period; (iii) internal and external coherence of the intervention strategy;(iv) consistency from regional to national levels; (v) accountability through SMART targets and reflected in funding allocation; and (vi) reliance on ex-ante evaluations; (vii) wide stakeholder engagement and coordination with regional bodies, socioeconomic partners, and environmental and climate authorities; (viii) process quality, simplification, and modernisation; and (ix) cost-effectiveness of the adopted systems.

The Tools4CAP project, therefore, enters into play in the context of a changing CAP and aims to provide CAP decision makers with suitable tools for a more evidence-based policy-making, ultimately improving capabilities to design next generation CSPs, and to perform monitoring tasks. To realise its ambitions, the project pursues five specific objectives:

Objective 1. To provide a shared knowledge base and an evaluation of methods and tools used for the design and implementation of the CSP.

Objective 2. To identify and adapt innovative methods and tools for the design and implementation of the CSP, by taking stock of relevant and replicable solutions developed in recent and ongoing research projects and other EU initiatives.

Objective 3. To empower end users to adopt innovative solutions for the design and implementation of the CSP, by providing them with methodological guidance on choosing the best solutions, their operationalisation, and associated good practices.

Objective 4. To establish a replication lab supporting the practical demonstration and uptake of innovative solutions for the design and implementation of the CSP, by operationalising and testing methods and tools across case studies.

Objective 5. To set up a capacity building hub to mobilise knowledge and transfer operational capabilities to end users for the design and implementation of the CSP, by enabling mutual learning, participation, and science-policy dialogue.

1.2. The objective of the deliverable

The aim of Work Package (WP) 3 is to outline the methodological guidelines for the operationalisation of innovative tools integrating ex-ante modelling tools with participatory approaches, supporting the design of the CSP at MS level and ensuring the construction of a robust *intervention logic*, and functional stakeholder engagement at all relevant levels.

The ambition of Task 3.2 ‘Co-design of improved or new methods and tools for informed decision-making’ was to develop new or improved methods, that should overcome key challenges in CSP design and stakeholder engagement to meet the requirements established by EU and MS regulations. It subsequently contributes to substantially increase the quality of the outcomes of the design process and of stakeholder engagement.

This deliverable contains a rationale for the choice of key challenges and methods selected for co-design, the constitution of the working groups and feedback of WG on the process. The main element of the report are the implementation guidelines (technical and methodological guidelines) for the selected tools and methods.

1.3. Approach to this task

This deliverable is a result of six co-design processes that build on the outcomes of T3.1 'Identifying decision challenges in multilevel governance and multi-policy settings' (Sterly et al. 2024), together with findings from WP1 (Bertolozzi-Caredio et al. 2023) as well as WP2 and WP4**.**

In a first step, the consortium agreed on a selection of core challenges to CSP design that should be addressed with innovative and adapted tools or approaches enabling decision-making and stakeholder engagement. Some key challenges identified in the 'Report on key challenges for decision-making across EU MS' (Sterly et al. 2024) e.g., the volume and complexity of EU CAP documents, or technical issues are clearly outside the scope of the Tools4CAP project (Sterly et al. 2024). The identified key challenges to be addressed by this task are on one hand related to evidence-based decision-making in the design process, and on the other to stakeholder engagement in all phases of CSP design. A literature search was conducted, including also a search in the instrument database (Wilson et al.) to identified suitable tools and approaches that could support MS to address the challenges. These were presented in a list with further explanations, examples of implementation. The following criteria were used to identify suitable tools and approaches:

- New innovative or adapted tool / method / approach.
- New tool provides substantial improved outcomes of design process and stakeholder engagement when implemented.
- Tool needs substantial adjustment to be able to use in CSP design and stakeholder engagement.
- Tool is suitable for different contexts (different MS; national / regional level).
- A use of the tool is realistically possible in many MS (resources available, expertise needed).

The extensive preliminary list was narrowed down to 11 methodological themes: (1) Integration of knowledge and information, (2) Stakeholder vision building, (3) Stakeholder identification and engagement in monitoring committees; (4) Process communication and engagement; (5) Coherence matrix, (6) Intervention-Objectives-Impact (IOI) Matrix; (7) Intervention setting, (8) Intervention logic; (9) Prioritisation and decision-making, (10) Impact Assessment (IA), (11) Scenario development/analysis. A survey among all partners involved in this task aimed to identify the six most relevant and suitable approaches / themes to be addressed in the co-design process. Partners evaluated the overall relevance of the tool / approach, its' suitability for demonstration in the predefined case study countries for these approaches (France, Germany, Poland, Slovenia, Netherlands), the expertise and interest of the consortium in the specific approach. The following six themes were selected for co-design:

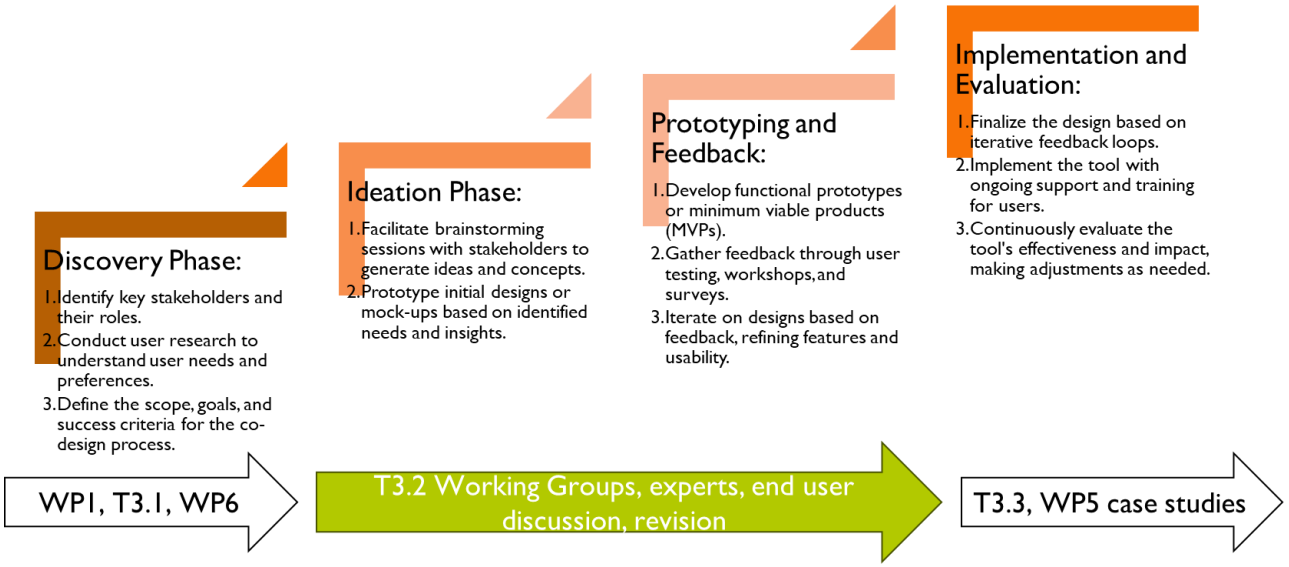
- Participatory vision building,
- Process communication and stakeholder engagement,
- Intervention-Objectives-Impact (IOI) Matrix,
- Intervention logic,
- Prioritisation and decision-making,
- Scenario development/analysis.

The selected tools and approaches were co-designed in working groups consisting of partners from different MSs bringing in their knowledge of the CAP design and implementation as well as on tools and methods used in policy-making. The Working Groups elaborated Implementation Guidelines that are practical and that can be used by actors with various levels of expertise. The protocols provide sufficient information to help actors to decide whether the use of the tool would be helpful for them, and whether they have sufficient resources and time available.

The co-design approach was chosen as it creates multiple benefits: Co-design fosters ownership, transparency, and inclusivity in policy-making, leading to better outcomes and increased trust in the process. It actively involves policy makers, experts, and affected communities throughout the design process to gather diverse perspectives and insights. It supports the development of a deep understanding of the needs, challenges, and aspirations of policy makers to create tools that are user-centred and contextually relevant. It embraces an iterative approach, where prototypes/drafts are continuously refined based on feedback and evaluation from stakeholders, ensuring alignment

with user expectations. Encourage collaborative problem solving and creativity, fostering a sense of ownership and commitment among stakeholders towards the final product.

Figure 1. Co-Design Process in Tools4CAP



Source: Tools4CAP 2024 based on IxDF 2016

The working groups were instructed about objectives and principles of the co-design process and were introduced to the template for the 'Implementation Guidelines'. Each Working Group assigned a lead partner responsible for process coordination.

Table 1. List of Working Group members

Working Group (WG)	Members and Affiliation (WG leads in bold)
Participatory vision building	Blanca Casares (AEIDL); **Živilė Gedminaitė-Raudonė (LSMC);** Victor Kieffer (OB); **Rita Lankauskiene (LSMC);** Lucian Luca (IAE-RO); **Vitalija Simonaityte (LSMC);** Monica Tudor (IAE-RO); Carla Wember (IfLS)
Process communication and stakeholder engagement	Blanca Casares (AEIDL); Emma Dillon (TEAGASC); Marieta Okenkova (SUA); Roxana Vilcu (Ecorys); **Carla Wember (IfLS)**
Intervention-Objectives-Impact (IOI) matrix	Daniele Bertolozzi (Ecorys); Weronika Felcis (UoL); **Maryam Hajialibeigi (WR); Roel Jongeneel (WR);** Norbert Potori (AKI); Ilona Rac (UL); János Sávoly (AKI); Simone Sterly (IfLS); Zsolt Szabó (AKI); Aija Zobena (UoL)
Intervention logic	Blanca Casares (AEIDL); **Emil Erjavec (UL)**; Weronika Felcis (UoL); Bachev Hrabrin (IAE-BG); Bozhidar Ivanov (IAE-BG); Sarah Peter (IfLS); **Ilona Rac (UL);** Daniela Tsvyatkova (IAE-BG); Aija Zobena (UoL), Adrien de Pierrepont (OB)
Prioritisation and decision-making	Blanca Casares (AEIDL); **Zbigniew Floriańczyk (ERDN Poland);** Lucian Luca (IAE-RO); Ilona Rac (UL); Monica Tudor (IAE-RO); Carla Wember (IfLS); **Barbara Wieliczko (ERDN Poland)**
Scenario building for Policy Impact Assessment (PIA)	Trevor Donnellan (TEAGASC); Emil Erjavec (UL); Zbigniew Floriańczyk (ERDN Poland); Roel Jongeneel (WR); Ilona Rac (UL); **Simone Sterly (IfLS)**; Barbara Wieliczko (ERDN Poland)

Source: Tools4CAP 2024

Each WG in coordination with IfLS identified relevant reviewers for every tool/method. These reviewed the first draft protocols based on the following criteria:

- Completeness of the descriptions,

- Comprehensibility of the language,
- Clarity of definition and appropriateness for the CSP design and monitoring process of the tool/method/approach,
- Appropriateness of level of detail to put the tool/method/approach into practice for process, outputs and outcomes,
- Clarity on needed resources for implementing the tool/method/approach,
- Sufficiency of further resources on the tool/method/approach.

The implementation guidelines were then revised by each WG based on reviewer feedback.

2. Tools and methods addressing key challenges of CSP design

The choice of the tools built on findings from a Tools4CAP-report on key challenges in decision-making in the CSP design process (Sterly et al. 2024). Based on the outcomes of 12 focus groups reports (Vilcu et al. 2024), a literature review in 18 MS and an EU level online survey, the report shows that challenges can be grouped in five clusters:

(a) Data coverage, availability and relevance.

(b) Current multi-level governance of the CAP and its complexity.

(c) Lack of capacities.

(d) Lack of accountability and transparency; and

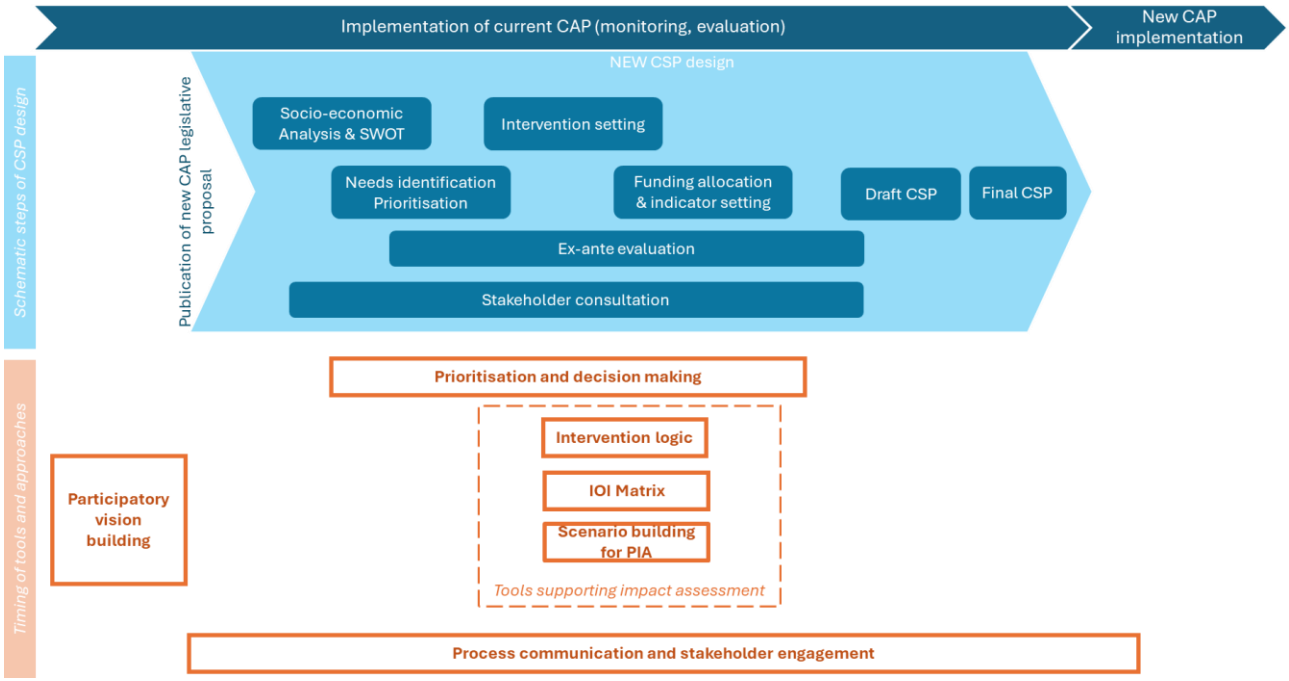
(e) Obstacles to evidence-based policy-making.

The analysis shows that challenges resulting from the current **multi-level governance** of the CAP and its complexity, as well as **timing** issues, are the most common. A lack of **transparency** concerning decision-making processes or consultation results as well as hurdles related to the **volume and/or complexity** of CAP documents and **technical problems** are also frequently mentioned. In MSs with strong regional level, **coordination between the national and the regional level** proves to be difficult.

CSP design steps: Especially, in the **ex-ante analysis, need assessment and SWOT** as well as **intervention setting** phases of the design process, challenges are coming up for involved actors. Challenges in terms of current multi-level governance of the CAP and its complexity are most apparent in the ex-ante analysis, the SWOT analysis, the intervention setting as well as in the setting of indicators and monitoring. Lacking capacities seem to be most challenging during the intervention setting.

Based on these findings and stock-taking of good practices, the choice for working on new and improved methods focused on (a) improving transparency and accountability of the stakeholder consultation through *participatory vision building* and *process communication and stakeholder engagement* and (b) methods for impact assessment that support the intervention setting phase of the design process. *Prioritisation and decision-making tools* serve as a cross-cutting support throughout the design process (see Figure 2).

Figure 2. Timing of co-designed tools and approaches in the CSP design process



Source: Tools4CAP 2024 based on Bertolozzi-Caredio 2023

The ***participatory vision building*** approach addresses primary obstacles in the CSP design, such as complex CAP documentation, stakeholder diversity, consultation issues, and transparency in decision-making. This tool guides authorities through sequential steps, including an example timeline and resource overview. To manage complex CAP documents, the Delphi method is used for expert consensus, following a systematic process (Linstone & Turoff 2002). Stakeholder diversity and consultation challenges are tackled using the Quadruple Helix approach and Stakeholder salience model. Transparency issues are addressed by employing an objective expert selection and focus group methodology.

Process communication and stakeholder engagement addresses challenges of coordinating within the multi-level governance of the CAP, handling the complexity of CAP legal documents, lack of transparency in decision-making, insufficient consultation, poor timing for consultations, and integrating consultation results into policy design. Intentional planning and communication provide clarity on participation purposes, scope, and roles, ensuring efficient and effective stakeholder involvement throughout the policy cycle. Moreover, it helps identify and develop necessary capacities and resources for both implementing bodies and stakeholder groups, aiding in the setup and navigation of the stakeholder engagement process. A well-communicated engagement plan clarifies participation activities, methods, timing, roles, and responsibilities, fostering stakeholder ownership and engagement. Lastly, tools for process communication allow stakeholders to trace how their input informs policy design and how feedback is integrated.

Implementing a well-designed ***prioritisation and decision-making*** process can improve the hierarchical ranking of the needs identified and thus improve the efficiency and efficacy of the co-design of the use of the resources available for the CSP. For a well-designed prioritisation, it is vital to carefully choose representatives of the key stakeholder groups relevant for the CSP to ensure that the CSP design follows the rules of participatory deliberative governance, a vital part in modern good governance and in times of complex and multi-faceted transition facing EU citizens. Conducted Focus Groups studies pointed to communication problem resulting among others in stakeholder inability to express respective needs. Namely in case of regional disparities some regional organisations were unable to be adequately empower presented on MS level. As a result 'regional needs often remained separate from national considerations' despite well recognised and documented regional hierarchy of needs.

The ***Intervention-Objective-Impact (IOI)*** matrix, within the governance of the CAP and the design of CSP facilitates structured decision-making by organizing objectives, interventions, and impacts into a coherent framework. This allows policymakers to systematically analyse and prioritize policy options based on their effectiveness and cost-effectiveness in addressing key agricultural challenges. One dimension of the IOI matrix emphasizes participatory decision-making, providing a platform for stakeholder engagement throughout the policy design process.

Transparency and accountability are central to the IOI matrix. Its clear framework enables policymakers to justify decisions based on evidence and best practices, fostering trust and confidence among stakeholders and promoting accountability. The IOI matrix also focuses on evidence-based policy development. By grounding decisions in rigorous data analysis and research, it ensures interventions are informed by empirical evidence and aligned with the objectives of the CAP and CSP.

Intervention Logic is a legal demand for MS as of the last CAP reform. The framework promotes data collection and use throughout the policy cycle, supporting informed decisions based on empirical evidence rather than assumptions. *Intervention Logic* requires clear, measurable objectives from the start, ensuring all actions align with these goals and prioritize policy needs effectively. Mapping inputs to outputs and outcomes increases resource use transparency, boosting legitimacy and accountability by showing resource impacts. Transparent process demonstration builds stakeholder consensus and support, fostering cooperation and clear communication of objectives. Moreover, the approach identifies the most effective and efficient resource use, maximizing impact, minimizing waste, and ensuring judicious use of public funds. *Intervention logic* also identifies data needs and collection methods early, ensuring adequate data for informed decision-making. The approach promises to simplify monitoring and evaluation, using predefined indicators to assess progress and identify necessary adjustments, to address timing issues and simplifiying multi-level governance by delineating responsibilities and outcomes, aiding coordination and coherence between administrative levels and supporting performance-oriented CAP design. Lastly, *Intervention Logic* helps identify and address overlaps and gaps in policies, refining them to cover neglected areas and streamline efforts and prepares policymakers to adapt strategies to changing external conditions or incorrect assumptions, crucial in dynamic environments.

Conducting ***Scenario Building for Policy Impact Assessment*** enables national policymakers to make informed choices among various alternatives, mostly determined at the EU level and adapted to national conditions. It increases transparency by revealing potential trade-offs between objectives, aiding in the redirection of targets and mechanisms to meet societal needs. Moreover, the tool involves stakeholders in the policy assessment process, creating a formal process for their input and holds policymakers accountable by providing clear evidence of how decisions are made. CAP Scenario Analysis can be applied in risk management, when identifying vulnerabilities and opportunities in policy reform decisions; strategic planning through setting new objectives and interventions; and in policy design through exploring potential consequences and refining them to address concerns. Scenario analysis supports the prioritization of objectives and decision-making early in CSP design. It navigates uncertainty by exploring possible futures and their outcomes, integrating diverse data, and examining complex systems. Involving stakeholders aligns interests, promotes strategic planning, and enhances policy resilience and inclusiveness. However, policymakers must manage stakeholder engagement to avoid undue influence on scenario design.

3. Implementation guidelines for selected tools and approaches

The implementation guidelines for the six co-designed tools and approaches follow a common structure. An **Introduction** gives a brief overview of the tool resp. approach, its goals and how it can be used in CSP design. **Challenges addressed by the tool / approach** elaborates how the specific tool can address the observed challenges of CSP design. It provides a brief overview of **involved actors in the implementation and potential end users** of the outcomes, as well as considerations of **resources needed**. It furthermore illustrates the aimed for **outcome** in detail, how these can be **integrated in the CSP design process**, in particularly also with one of the other co-designed tools and approaches. Finally, the guidelines also provide some thoughts on **limitations and implementation challenges** of the specific tool or approach, an **example of implementation**, and some **further reading** suggestions.

3.1. Participatory vision building

3.1.1. Introduction

The challenges with top-down policy-making have led to the need for broad stakeholder participation in policy-making for inclusive and sustainable development. Stakeholder involvement is a requirement of current and future CAP regulation. *Participatory vision building* proposes an inclusive approach in the governance process through which all interested parties participate and have a voice in public consultation regarding the desirable future of agriculture, rural areas, and environmental protection. The main goal of this document is to provide methodological

support for the co-design of a long-term vision in the formulation of which all stakeholders have expressed their needs, harmonized interests, and agreed prospects. Participatory governance in the vision-building exercise would enhance the quality of the policy design both in its content (regarding appropriateness, cost-effectiveness) and procedurally (regarding legitimacy, transparency, equity, and accountability), thereby enhancing the likelihood that its provisioned economic, social and ecological outcomes will be achieved (Anggraeni et al. 2019). The exercise consists of three interrelated methods: the 6-step Delphi method, the Quadruple Helix approach and the Stakeholder salience model (for more details please see further). The chosen combination of methods addresses relevant challenges such as the complexity of CAP strategic plans (SP) co-creation, multilevel governance, the choice and diversity of selected stakeholders, as well as transparency within these processes. The overall goal of the method is threefold: (1) to mobilise interest and stakeholder engagement ahead of other CSP design processes; (2) to set common objectives and visions among different stakeholders for the future of agriculture and rural areas; (3) to provide initial inputs for needs assessment and prioritisation for CSP.

The scientific evidence and specialised literature also suggest that a good representation and inclusion of all interested parties (policy, society, business, and research) leads to a stronger commitment to the results. Thus, the result becomes a process of collective learning among participants, and rural stakeholders are given the opportunity to become valuable policy influencers and co-creators of solutions (Ulman et al. 2020).

3.1.2. Challenges addressed by the tool / approach

The tripartite coherence of the *Participatory vision building* approach is effective in addressing the primary obstacles in the current multi-level governance of the CSP co-design, namely: complexity and big volume of CAP documentation; lack of diversity of involved stakeholders and lack of consultation; the dilution of interests/opinions/needs when too many stakeholders are involved; transparency regarding decision-making processes and consultation results. The tool provides a comprehensive guide for the sequential steps that need to be conducted by the authorities in charge of coordinating CSP. It also includes an example timeline for organizing the process and an initial overview of the required resources.

Challenges in **dealing with the volume and/or complexity of CAP documents** are met by fulfilling the steps of the Delphi method, as a method for achieving consensus based on expert knowledge. The Delphi method implementation manual (Linstone & Turoff 2002) outlines a systematic process for gathering and analysing information. Initially, a team of experts in the field creates a detailed summary overview of the policy area (in this case, the CAP) and other related documents. This summary is then discussed in a focus group, with particular emphasis on identifying the core direction. The information gathered from these discussions is compiled by the experts and presented in a survey format to establish a prioritisation sequence. Finally, a draft vision-building material is prepared and validated in a consensus meeting to obtain final inputs for the final version of the document.

The **lack of diversity of involved stakeholders and lack of consultation** challenges are addressed by combining two proposed methodologies: the Quadruple Helix approach, in combination with Stakeholder salience model. The diversity of the key interest groups is achieved by assembling a participatory vision-building expert team consisting of representatives from policy, society, business, and research – referred to as helixes. The selection of experts for consultation is based on their urgency, legitimacy, and power to impact the creation of the Rural Development Programme (RDP) in their respective fields of competence.

The issue of **transparency regarding decision-making processes and consultation results** is addressed through the implementation of an objective expert selection methodology and the focus group format. The focus groups provide an equal opportunity for all participants to express their opinions and react to them, ensuring representation of the relevant interest groups. Additionally, a survey, based on the summarized discussion results from the first focus group is conducted within the same focus group experts to prioritize diverse options, and a consensus meeting in the final focus group is held to shape the final draft of the vision-building process. Unbiased specialists moderate and summarise the material, guaranteeing transparency in the results.

3.1.3. Involved actors and end users

Building a CAP vision before developing a CSP with the involvement of representatives of all interested parties can help ensure coherence, consistency and consensus on the desirable future for agriculture and rural society. Stakeholder involvement means engaging individuals ranging from policy designers to project beneficiaries in all stages of the policy cycle: from policy-making to better implementation on the ground.

It is worth mentioning that almost all stakeholders of the CAP are called to be involved in the implementation of the proposed method, as it helps to formulate the vision of CSPs and engage those stakeholders. This wide range of stakeholders and end users can be broadly categorised into three main groups:

- Policy and programme designers and implementers: political decision-makers; public administrators at national, regional, and local authorities and at the European institutions; audit and control bodies; paying agencies, and LEADER Local Action Groups (LAGs). This part of stakeholders is directly related in carrying on the method/tool and responsible for its implementation in the region.
- Interest group representative bodies: organisations representing farmers, landowners, forest managers, rural businesses, actors along the food chain, environmentalists, researchers, rural communities, disadvantaged groups, and general civil society representatives are part of stakeholders who directly participate in various focus groups, and they are those stakeholders whose vision is or might be reflected in policy documents.
- Actors on the ground: potential and actual beneficiaries and participants in CAP projects, with farmers and land managers at the forefront (e.g., the EU CAP Network, national networks).

3.1.4. Process description

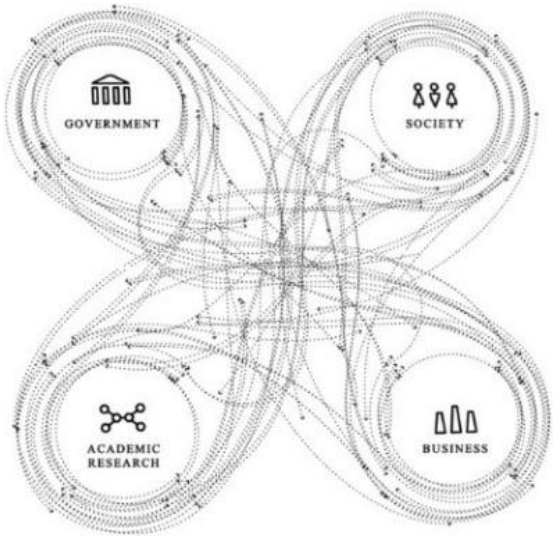
Aiming to implement the *Participatory vision building* tools/approach, the following guidance should be implemented:

- Selection of stakeholders using the Quadruple Helix approach and the Stakeholder salience model.
- Creation of vision for the future of agriculture and rural areas using a Delphi method.

Selection of stakeholders. That implies a stakeholder analysis and selection of a stratified sample of stakeholders representing a) different components of helix using the Quadruple Helix approach (Carayannis & Rakhmatullin 2014; González-Martinez et al. 2023), and b) different stakeholder types regarding power, urgency the level to which the stakeholder can call for immediate attention), and legitimacy-based on the Stakeholder Salience model (Mitchell et al. 2017). Both tools help to select strong, weak, and moderate stakeholders for their participation in the focus group meetings, the final consensus meeting, etc. that will be organized during the Delphi process implementation.

Guidance 1. Selection of stakeholders representing 4 components of organisations helix: government, society, business and research. The number of stakeholders may vary depending on the size of the country, number of organizations and other individual needs of the country. Usually, 15-20 stakeholders are selected, 4-5 from each of the helixes (see Picture 1).

Figure 3. Quadruple Helix approach

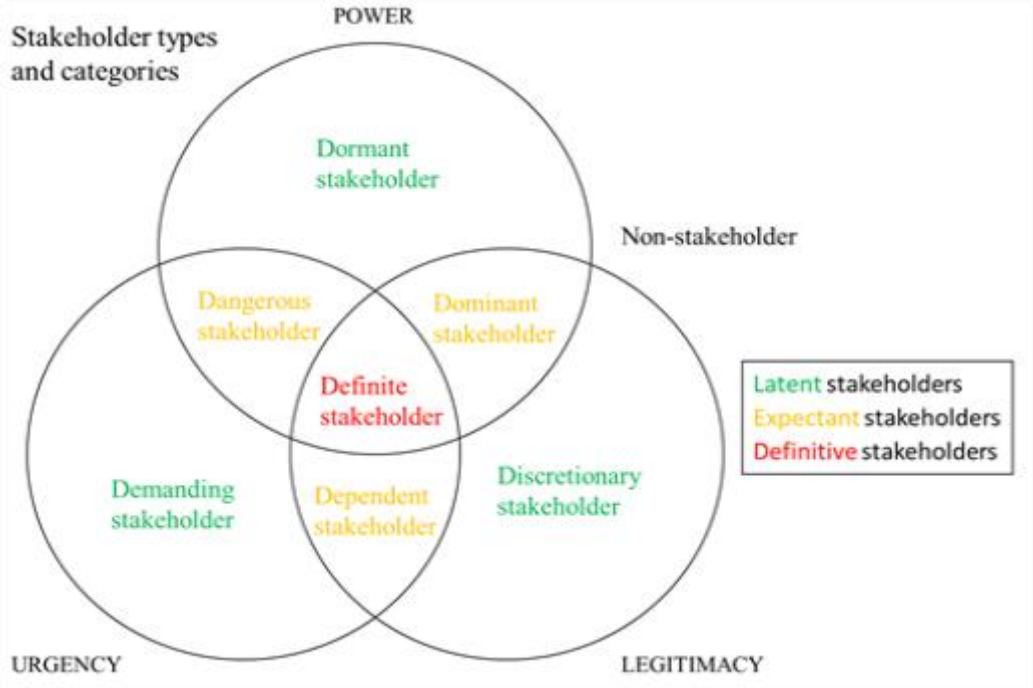


Source: Carayannis & Rakhmatullin 2014; González-Martinez et al. 2023

Guidance 2. Identification and selection of strong and weak stakeholders representing 4 helixes by assessing their urgency, legitimacy, and power, based on the Stakeholder salience model. A scale from 0-2 is used to measure urgency, legitimacy, and power. In the end, 7 types of stakeholders might be identified that will be invited to take

part in the process of *Participatory vision building* (see Figure 4). Usually, stakeholders having the biggest urgency, legitimacy and/or power (or set of combination of all three categories) from different helixes are invited to take part in the process.

Figure 4. Stakeholder Salience Model



Source: Mitchell et al. 2017

Choose different types of stakeholders: strong (definitive) and weak (latent) based on the stakeholder analysis. All stakeholders should be analysed to understand their role in the process of preparation and implementation of the chosen type of intervention in the selected country (for example, for setting common objectives and visions among different stakeholders for agriculture and rural areas).

Use a scale from 0-2 to measure power, urgency, and legitimacy,

0 = stakeholder with no urgency, stakeholder with no legitimacy, stakeholder with no power.

1 = stakeholder with some urgency, stakeholder with some legitimacy, stakeholder with some power.

2 =stakeholder with high urgency, stakeholder with high legitimacy, powerful stakeholder.

Table 2. Example of assessment

Stakeholder	Stakeholders' role in the process			Position
	Urgency	Legitimacy	Power	
Business: organization x	2	2	2	Global player, dominant
Business: organization y	2	1	2	Global player, demanding stakeholder
Government: public organization x	2	2	1	Influence through development programmes
Government: public organization y	1	2	1	Relevant expert
Research: university x	1	1	1	Relevant expert
Research: research organization x	1	1	1	Relevant expert
Society: NGO x	2	1	0	Civil society involvement
Society: NGO y	2	1	1	Relevant expert in environmental issues

Source: Tools4CAP 2024

At the end of the selection of stakeholders, the expertise will be accumulated by involving experts from various organizations that have received the highest points, for example:

- It can be different ministries (government helix) as holding the highest level of legitimacy in the field of implementation of CAP governance in the respective EU country.
- business helix representatives holding high urgency attributes.
- urgency, legitimacy, and power attributes varying among the experts in different helixes.

Based on the results of the assessment, select the final 15-20 stakeholders (or depending on country's needs) who will be invited in the further process for *Participatory vision building* by using the 6-step Delphi method. They will be called the Vision Building Working Group (VBWG).

Creation of vision using the Delphi method. *Participatory vision building* for a selected area of intervention can be implemented using the following Delphi method steps:

- Preparation. Planning the action for *Participatory vision building* (Month 1).
- Step 1. Desk research and context analysis of CAP and other relevant documents aiming to draft visioning material for discussions at Focus group meetings (Months 2–5).
- Step 2. Identification of stakeholders using the Quadruple Helix approach and the Stakeholder salience model, informing and inviting selected stakeholders to vision building exercise and organising the first focus group meeting with VBWG members (Month 6).
- Step 3. Consultation with stakeholders from VBWG – 1st Focus group meeting. Content of the Focus group meeting – presentation of the prepared material and open discussion with VBWG members (Month 7).
- Step 4. Review of first inputs and wider stakeholder survey. Analysis of meeting results, first insights for the vision and preparation of survey aiming to clarify some questions and/or to create a prioritisation list. Sending survey for a representative sample of stakeholders (Month 8).
- Step 5. 2nd consultation with stakeholders from VBWG. Based on the survey results, preparation of the 1st draft of the participatory vision. The document is sent to VBWG members for their feedback (Months 9-10).
- Step 6. Consensus meeting – 2nd Focus group meeting with VBWG. Validation of results at the consensus meeting (Month 11).
- Finalization. Preparing the final vision, based on the outcomes of the validation (Month 12).

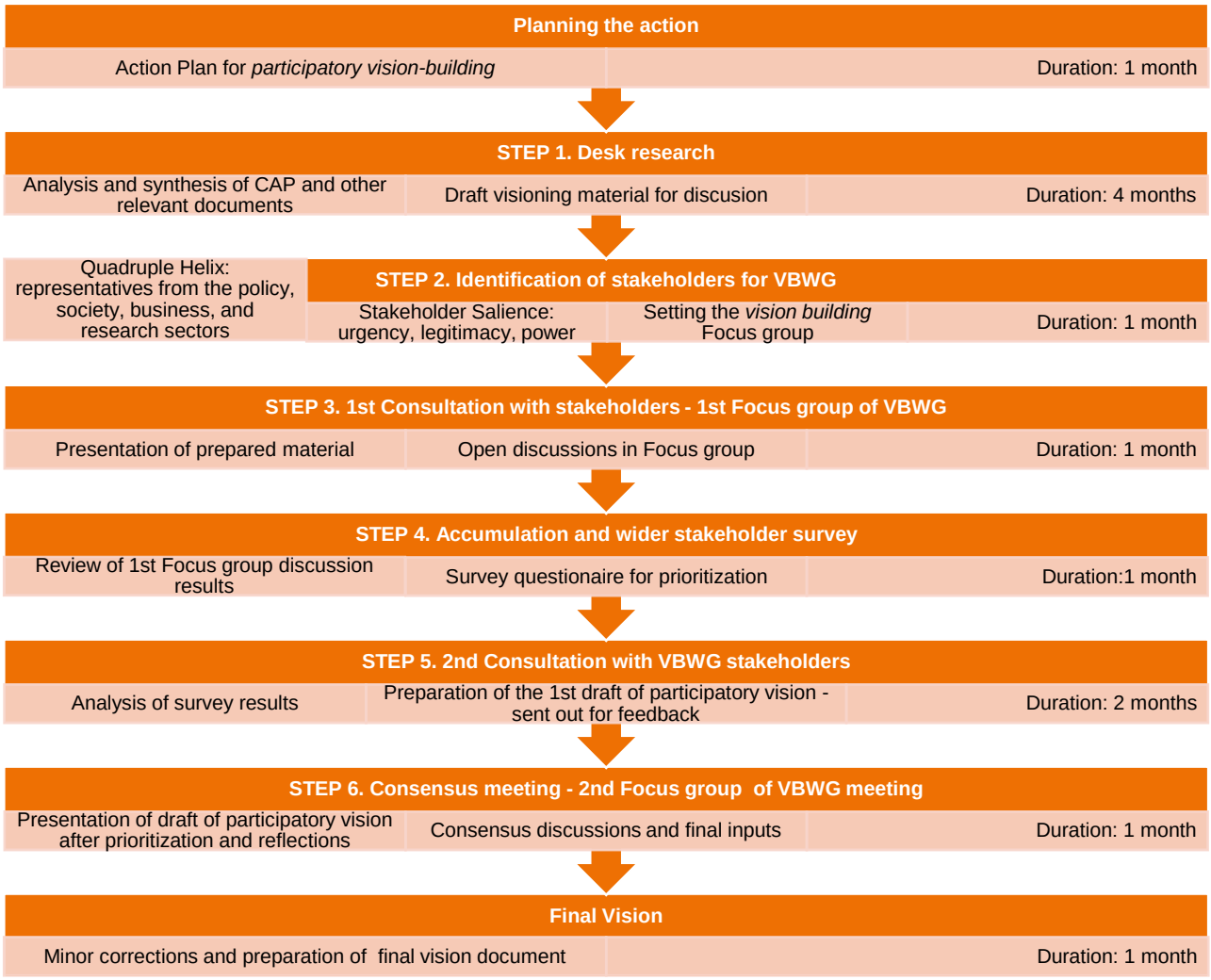
The duration of the Delphi method in the provided example is 12 months. Each step of the Delphi process can be individualized according to the needs of the EU state, already existing policy pathways in the selected area of intervention, interaction practices with stakeholders, etc.

3.1.5. Resources needed

The overall resources are difficult to estimate, being tangible and intangible, short-term and long-term, direct and indirect, and are perceived differently by different actors.

The timeline for running one *Participatory vision building* cycle, as depicted in Picture 3, follows the 6-step Delphi approach and includes additional preparation procedures. This cycle typically spans around 12 months. For a more complete explanation of the timeline and required resources, please refer to Annex 1 and Annex 2.

Figure 5. Timeline for running the *Participatory vision building* cycle.



Source: Tools4CAP 2024

The resources are incurred both by the government/funder and by stakeholders, and both incur tangible and intangible costs. Anggraeni et al. (2019) distinguish that the government/funder bears the following tangible costs: institutional cost, stakeholder selection, direct process organization cost, training cost, communication cost, salaries, transportation cost, and intangible costs (Anggraeni et al. 2019).

Both methods of public consultation (focus groups and survey) can be organized both face-to-face and online. Each of the two approaches requires different equipment (infrastructure, logistics) and different costs (time and financial resources).

Human resources are expected from all parties in the process. National ministries or other funding and/or method-implementing organizations/institutions should ensure the preparation of a proper human resource management plan and overall implementation processes of this tool. The (ministry) team should be comprised of the personnel with assigned roles and responsibilities for completing the tool. VBWG members may have varied skill sets (such as collaboration, teamwork, communication, time management, leadership, problem solving, critical thinking, problem resolution, workload, cost management, etc.), may be assigned full or part-time, and may be added or removed from the team as the method/tool progresses. Although specific roles and responsibilities for the tools' team members are assigned, the involvement of all members in planning and decision-making is beneficial.

Team members implementing this approach should be familiar with the 6-step Delphi method and know the Quadruple Helix approach and the Stakeholder salience model. If such knowledge is insufficient and sporadic, then the implementation of this task should be outsourced to researchers or other kind of expert service providers.

3.1.6. Outcomes

The proposed participatory vision building' combines three comprehensive methods: a 6-step Delphi method, the Quadruple Helix approach and the Stakeholders' salience model, which together approach provide deeper insights on different/divergent perspectives related to the future of agriculture and rural development, delivering rich qualitative data, information on complex issues, real-time feedback and involvement of the full spectrum of stakeholders in preparing CSPs. Therefore, the main outcomes of this method are the following:

- A created vision for future CSPs with common objectives and visions for agriculture and rural areas. This tool helps to actively involve the most relevant policymakers, experts, and affected communities to gather diverse perspectives and insights. A participatory approach helps to secure the ownership and commitment of the stakeholders involved.
- Active participation by local actors and other stakeholders aims to enhance both the quality and relevance of the suggested future trajectories for agriculture and rural development. Stakeholders' engagement is organised before the CSP is given priority in the CSP design process, and attention is paid to small and remote regions and actors.
- The 6-step Delphi method, as well as the Quadruple Helix approach and the Stakeholders' salience model help to find, involve, and listen to variety of different stakeholders. This also enables social cohesion, as the stakeholders might gain recognition and respect from others, develop collaborative relationships and increase cooperation (Anggraeni et al. 2009).
- Stakeholders' engagement ensures the quality of the result (e.g. the CAP and/or the CSP), as it provides improved and bottom-up analysis, improved policy implementation and bigger stakeholder support on planned policy.
- Expected representation and fulfilled principles of accountability and transparency. Therefore, stakeholders are informed and can assist in decision-making; this also enhances democracy and finally, it helps stakeholders to accept outcomes (Anggraeni et al. 2009).
- Accomplished co-creation, co-design, and co-learning. Co-design fosters ownership, transparency, and inclusivity in policy-making, leading to better outcomes and increased trust in the process. It also supports policymakers in achieving a deep understanding of the needs, challenges, and aspirations of CSP beneficiaries. This helps the policy vision to be user-centred, and contextually relevant. Co-creation encourages collaborative problem solving and creativity, fostering a sense of ownership and commitment among stakeholders towards the final product, i.e., national CSP. Co-creation, learning, and capacity-building activities also increase the social and human capital (including networking, partnership skills, public speaking, programme planning, etc.) of stakeholders.
- Unified procedure of stakeholders' involvement and vision building in the EU MS.

3.1.7. Integration in CSP design process

This method supports needs assessment and prioritization in further steps of preparing CSPs. It also might be useful before the scenario building.

3.1.8. Limitations or implementation challenges

Estimating the overall resources required for organizing the tool is challenging because of their diverse nature, including tangible and intangible aspects, short-term and long-term considerations, and direct and indirect factors. Moreover, various players may have varying perceptions of these resources.

It is important to consider the intangible costs of the tool, such as organization recognition, loss of authority, uncertainty, and the potential loss of political support. Stakeholders also experience costs and the primary tangible costs borne by stakeholders are transportation costs and loss of income from participation, whereas the intangible costs are the opportunity cost of time, conflict, distress, geographical distances, capacity, representation, and loss when the decision-making process is not clear.

Among the most important challenges in running this tool are using the appropriate data, ensuring that the stakeholders are representative, implementing the vision in concrete measures, and others.

3.1.9. Implementation examples

Two examples are provided here from other policy areas on the implementation of similar tool.

SHERPA Position Paper 'LONG TERM VISION FOR RURAL AREAS'

One of the good practice examples of implementation of a similar tool is the 'Long-term vision for rural areas' developed by Horizon 2020 project 'Sustainable Hub to Engage into Rural Policies with Actors' (SHERPA) partners where the contribution from SHERPA science-society-policy platforms were provided. SHERPA was a four-year project (2019–2023) with 17 partners funded by the Horizon 2020 programme. Its aim was to gather knowledge that contributes to the formulation of recommendations for future policies relevant to EU rural areas, by creating a Science-Society-Policy interface that provides a hub for knowledge and policy. 40 multi-actor platforms (the MAPs) were established in the European Union countries by the project. A MAP represents a local/regional or national network made by key stakeholders interested in rural and agri-food topics such as local citizens and businesses (representatives from the civil society, NGOs, business and farmer organizations), researchers, and policymakers. Each MAPs' activities were facilitated by a neutral external support team consisting of a Facilitator and a Monitor in charge of running the MAP and documenting the desk and context analysis and synthetising the discussion. Using a 6-step Delphi method, selected topics were analysed and results each year were published in Position papers of selected topics.

One of the selected topics was 'Long-term vision for rural areas'. This work has contributed to the EC's call in September 2019 to the preparation of a Long-Term Vision for Rural Areas and stimulated a debate on the future of rural areas and the roles they must play in European society. This SHERPA Position Paper aimed at contributing to the debate on the Long-Term Vision for Rural Areas by presenting the key issues identified by the 20 regional and national SHERPA Multi-Actor Platforms (MAPs), and by the EU-level MAP. The MAPs identified their desired visions for 2040, the enabling factors to achieve those visions, the challenges to overcome and the opportunities to be seized. They were informed by public data relating to the environmental, social and economic characteristics of rural areas, and scientific papers and reports from past and ongoing research (SHERPA position paper 2021). The results of the long-term vision were distributed and communicated to the EC, and related organizations within the EU countries, in various conferences and events.

Results on the long-term vision for European rural areas can be found in the position paper (Link to the document: https://rural-interfaces.eu/wp-content/uploads/2021/02/SHERPA_PositionPaper-LTVRA.pdf).

A roadmap for the transition of Lithuanian industry to a circular economy: the first vision for Lithuanian industry based on the principles of co-creation and partnership

Another good practice example is from the initiative of the Ministry of Economics and Innovation of the Republic of Lithuania to create a roadmap for the transition of Lithuanian industry to a circular economy. Europe has the goal of becoming the first climate-neutral continent by 2050. The Ministry of Economics and Innovation of the Republic of Lithuania identified in 2020 that Lithuania does not have yet a clear vision of how industries should implement climate change requirements. For this reason, the ministry took part in the EC's pilot project 'Regions in Transition'. Given the different starting positions of European countries and the need for country-specific measures to achieve the targets, the EC has provided Lithuania with a financial opportunity to prepare a relevant set of policy and financial instruments. With the support of the EC, the project 'Preparation of a Roadmap for the Transition of Lithuanian Industry to the Circular Economy' was implemented, by identifying the challenges most relevant to the country's industry, and outlining concrete actions that would help to preserve the competitiveness of the industry in the context of environmental requirements. A set of policy and financial instruments will help the industrial sector to move towards a circular economy by giving the industry a competitive edge in the global market while promoting integration into Europe's strategic and global higher-added value chains.

The process of roadmap development was exceptional – it is the first co-creation process involving the actors identified in the Lithuanian Circular Economy Stakeholder Map, who, based on the value they can create, can become the initiators and catalysts of change in the industrial transformation towards a circular economy. These include experts from the Industry 4.0 platform, researchers, representatives of public authorities, non-governmental organisations, associations, and industrial companies. The Roadmap was developed using a systematic dialogue approach, involving representatives of all stakeholders in an open, constructive dialogue. In this way, the process integrated a diversity of interests, roles, and relationships, while stakeholders from academia and research worked in parallel, to achieve a common contextual understanding, and to reconcile policy decisions from above with proposals received using a bottom-up approach.

The roadmap for Lithuania's Industrial Transition to the Circular Economy based on the principles of co-creation and partnership became part of the National Action Plan. It enables all circular economy actors to build a common understanding, knowledge, and context and to work together.

Link to the document:
https://inovacijuagentura.lt/site/binaries/content/assets/dokumentai/mita/kelrodziu_integracija.pdf

3.1.10. Further reading

- *Carayannis and Rakhmatullin* use the Quadruple and Quintuple Innovation Helixes (also Quadruple/Quintuple Helix) perspective to explore, explain and enact the conceptual as well as practical linkages between theory, policy and practice related to the ingredients of smart, sustainable and inclusive growth: Carayannis, E.G., Rakhmatullin, R. (2014): The Quadruple/Quintuple Innovation Helixes and Smart Specialisation Strategies for Sustainable and Inclusive Growth in Europe and Beyond. J Knowl Econ 5, pp. 212–239. https://doi.org/10.1007/s13132-014-0185-8
- The paper by *Chartier et al.* provides insights on how the SHERPA project worked with the the Delphi methods for the Long-Term Vision for Rural Areas: Chartier, O., Salle, E., Irvine, K., Kull, M., Miller, D., Nieto, E., Vestergård, L.O., Potters, J. and Slätmo, E., Zomer, B., Iadecola, F. (2021): Long-Term Vision for Rural Areas: Contribution from SHERPA science-society-policy platforms. SHERPA Position Paper. DOI: 10.5281/zenodo.4557440
- The paper by *González-Martinez et al.* highlights importance of civil society in driving innovation in the quadruple helix model: González-Martinez, P., García-Pérez-De-Lema, D., Castillo-Vergara, M., Hansen, P.B. (2023): Determinants and performance of the quadruple helix model and the mediating role of civil society. Technology in Society, Volume 75, 2023, ISSN 0160-791X, https://doi.org/10.1016/j.techsoc.2023.102358
- *Mitchell et al.* provide a theory of stakeholder identification and salience, including principles of those approaches: Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997): Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. Academy of Management Review, 22 (4), pp. 853-886.
- In another paper *Mitchell et al*. show how Stakeholder Salience plays a role in Stakeholder Research: Mitchell, R.K., Lee, J.H., Agle, B.R. (2017): Stakeholder Prioritization Work: The Role of Stakeholder Salience in Stakeholder Research. Stakeholder Management (Business and Society 360), 1, Emerald Publishing Limited, Leeds, pp. 123-157. https://doi.org/10.1108/S2514-175920170000006.
- *Okoli and Pawlowski* show in their paper how the Delphi method can be used as a research tool: Okoli, Ch., Pawlowski, S.D. (2004): The Delphi method as a research tool: an example, design considerations and applications. Information & Management, 42 (1), 2004, pp. 15-29. ISSN 0378-7206, https://doi.org/10.1016/j.im.2003.11.002.
- More insights on the Delphi method are provided in this overview by *QuestionPro*: https://www.questionpro.com/blog/delphi-method/

3.2. Process communication and stakeholder engagement

3.2.1. Introduction

Stakeholder engagement regarding the CAP Strategic Plans (CSP) design and implementation is outlined in the EU Regulation (EU) 2021/2115 of the European Parliament and of the Council. MSs are responsible for effectively involving 'economic, social, and environmental partners, including representatives of the agricultural sector' in the preparation of the CSP; and 'consult with relevant stakeholders' (Article 106).

The engagement of stakeholders is hence an integral part of the design and implementation of the CSPs and yet the scope, processes and integration of results of the engagement are not specifically outlined. Within the experiences from the Tools4CAP project, and research beyond it, it becomes apparent that stakeholder engagement is practiced differently and with varying scopes in MS. Due to the heterogeneity of MS in terms of size and scale, division of competences, governance system, culture of participation, production systems, programmed interventions and actor groups, this is understandable. However, challenges in stakeholder engagement are similar in many MS and guidance and specific tools can help to address many of them. Lessons can be learned from initial experiences around the design of MS CSPs for the CAP 2023-27 in providing guidance for future iterations.

The aim of tools and guidelines for *process communication and stakeholder engagement* is hence to provide (1) guidance for end users to improve transparency and clarity of stakeholder consultations. The guidance includes scope and levels of participation, as well as roles of the stakeholders in the consultation, that need to be communicated to help manage expectations for the involved stakeholders. It will (2) assist in enabling clear communication on timelines, decision steps and necessary documents through specific analogue and digital tools.

3.2.2. Challenges addressed by the tool / approach

Actors in stakeholder engagement in CSP design and monitoring are faced with challenges of:

- Coordination in the current multi-level governance of the CAP and its complexity, especially regarding the volume and complexity of CAP legal documents and requirements.
- a lack of transparency concerning decision-making processes or consultation results.
- a lack of consultation.
- timing in general and especially regarding a lack of time to carry out consultations before decisions need to be taken as well as when to carry out stakeholder consultations, and
- an integration of knowledge of consultation results into policy design.

Making intentional decisions on stakeholder engagement informed by this guidance and thorough process communication helps to address these challenges. Benefits include:

Setting the stage: Through intentional planning and sharing this plan for stakeholder engagement, all involved actors will have clarity on the purpose and scope of their participation, as well as which role stakeholders can play in designing, implementing and assessing policies. This creates a clear frame for expectations for activities, methods, timing, roles, responsibilities and resources to meet the defined objectives of stakeholder participation effectively and efficiently throughout the policy design and implementation cycle.

Capacity building: The guidance will help to firstly identify needed, existing and lacking capacities and resources of the implementing bodies (CAP Managing Authorities, other relevant Ministries) and stakeholder groups. Secondly, it helps building capacities in terms of what to consider when setting up the stakeholder engagement process and how to communicate and navigate the complex process of CSP design and monitoring.

Transparency of the process: Setting up and communicating a plan for stakeholder engagement that outlines the purpose and scope of participation in terms of activities, methods, timing, roles, responsibilities and resources creates clarity regarding what stakeholder groups can expect throughout the process. Ongoing process communication and transparent ways of interacting with the process, other stakeholders and the managing authorities can enable a sense of ownership and engagement for the stakeholders.

Knowledge integration and feedback loops: Specific tools for process communication include the possibility of interaction between the different actors within the different policy steps. Stakeholders can trace and comprehend how the stakeholder consultation results inform the policy design and how their feedback is integrated.

3.2.3. Involved actors and users

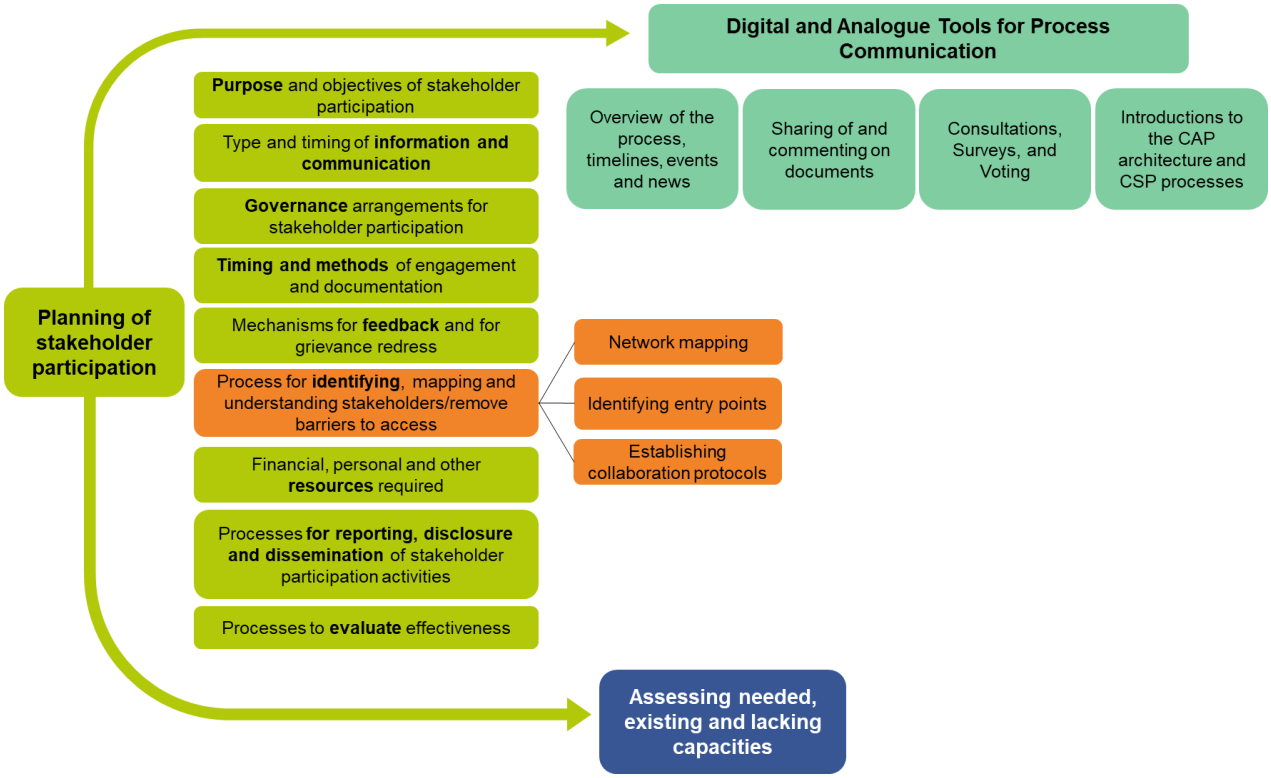
In the context of CAP Strategic Plans (CSPs), stakeholder involvement means engaging a variety of individuals, from policy designers to project beneficiaries, throughout all stages of the policy cycle, including policy-making and on-the-ground implementation.

It is important to note that almost all CAP stakeholders are impacted by this proposed method/tool, as it aids in shaping the vision of CSPs and involving these stakeholders. These stakeholders and end users can be broadly classified into three main groups:

1. Policy and Plan Designers and Implementers: This group includes political decision makers, authorities at national, regional, and local levels, such as national ministries, Managing Authorities, Regional Governments, Paying Agencies, Control Bodies, and LEADER LAGs. These actors are often involved in implementing the method/tool and are responsible for its execution in the region.
2. Interest Group Representative Bodies: This category comprises organisations representing farmers, landowners, forest managers, rural businesses, actors along the food chain, environmentalists, researchers, rural communities, and disadvantaged groups. These stakeholders actively participate in various consultations, and their visions are often reflected in policy documents.
3. Actors on the ground: This group includes potential and actual beneficiaries and participants in CAP projects, with farmers and land managers being the primary focus (the national CAP Network).

3.2.4. Process description

Figure 6. Tools in the process of stakeholder engagement



Source: Tools4CAP 2024

General considerations

The general considerations will enable end users to clarify their own approach to the stakeholder consultation in their specific regional context. This guide includes specific recommendations that are suggested elements for implementing effective stakeholders' participation. The key recommendations are intended for help and support the end users to plan and implement effective stakeholders' participation. They are based on the principles of inclusiveness, transparency, mutual respect, accountability and responsiveness. They focus on the key steps that the end users are recommended to follow.

1. Possible roles of stakeholders in the process and scope of the consultation

Stakeholders' participation can make an important contribution to the design, implementation and evaluation of policies. It enhances the effectiveness of policies by integrating stakeholders' knowledge, perceptions, experiences and contextual framework. It provides support for policies through increased transparency, accountability and legitimacy of decision-making processes. Its effectiveness depends on when in the policy design and implementation cycle end users intend to conduct stakeholder participation and in which way.

Planning of stakeholders' participation

Planning and sharing of plans for stakeholder participation help stakeholders to understand the opportunities for participation, and the role they can have in designing, implementing and assessing policies. It helps them to decide how and when they want to participate, and to prepare for their participation. Planning stakeholder participation involves identifying activities, methods, timing, roles, responsibilities and resources to meet the defined objectives of stakeholder participation effectively and efficiently throughout the policy design and implementation cycle. It is a key recommendation to commence stakeholder participation at the start of, and continue it throughout, the policy design and implementation cycle. Stakeholder participation must have a purpose. It is a key recommendation to determine the objectives and scope of stakeholder participation before starting stakeholder participation activities. The primary objective may be to ensure that the policy design, implementation and assessment processes are informed by a well-represented understanding of stakeholder views, knowledge and interests. Stakeholder participation can also foster positive stakeholder relationships, including interpersonal relationships, during a process that might involve a wide divergence of views, opinions, interests and expectations. It can enable stakeholder learning – including learning about the perspectives of other stakeholders. This understanding and learning can enhance the contributions of stakeholders and enable them to assume and share responsibility for policies. It is a key recommendation to develop a **stakeholder participation plan** that specifies the activities, methods, timing, roles, responsibilities, reporting and resources that are required to meet the identified objectives of stakeholder participation. Once engaged, stakeholders should be involved in a review of the initial stakeholder participation plan to increase the likelihood that it meets its intended purpose and objectives. It is a key recommendation to publish the stakeholder participation plan and disseminate it to stakeholders.

A stakeholder participation plan describes the following:

- The objectives of stakeholder participation, incorporating stakeholder expectations for their participation.
- The process for identifying, mapping and understanding stakeholders (e.g. understanding their interest in, and influence over, the policy), and capacity-building or other approaches needed to enable effective participation of different stakeholder groups, including marginalised groups and ensuring balance in representation according to types of actors, gender, geographical coverage and other criteria.
- The timing and methods by which stakeholders will participate throughout the policy design and implementation cycle. This includes explaining the approaches that will be used to enable effective participation of all stakeholder groups.
- The type and timing of information to be communicated to different stakeholders, setting out how communication with stakeholders will be managed throughout the policy design and implementation cycle. Dedicated approaches and different levels of resources may be needed for communication with different stakeholder groups so that they can obtain the information they need, in a timely manner, about the issues that potentially affect them.
- The measures that will be used to remove barriers to participation for stakeholder groups, including marginalised groups.
- How the input of different stakeholder groups will be captured.

- Governance arrangements for stakeholder participation, including decision-making, oversight, implementation, monitoring and evaluation of the stakeholder participation process, and links with governance arrangements for the policy.
- Mechanisms for feedback and for grievance redress.
- Processes to evaluate effectiveness of stakeholder participation and improve the stakeholder participation plan after each phase of its implementation.
- Processes for reporting, disclosure and dissemination of stakeholder participation activities.
- Financial and other resources required and available for implementation of all elements of the stakeholder participation plan. These include ongoing costs, such as for the functioning of multi-stakeholder bodies, and for feedback and grievance redress mechanisms.

2. How to take stock of existing stakeholder networks

Network mapping

Mapping existing networks is crucial in policy design and implementation, as it provides a comprehensive understanding of the landscape within which the policy will operate. The key steps to mapping existing networks involve first identifying relevant stakeholders and their interconnections. This can be achieved through stakeholder analysis, which examines the roles, interests, and influence of various actors. Once stakeholders are identified, the next step is to gather data on their relationships, such as formal partnerships, informal connections, and communication channels. This may involve conducting surveys, interviews, or using network analysis tools to visualise the structure of the network.

After mapping the existing networks, the next crucial step is to assess their strengths, weaknesses, and dynamics. Understanding power dynamics, trust levels, and communication patterns among stakeholders is essential for effective policy design and implementation. Additionally, identifying key nodes or central actors within the network can help leverage existing relationships and resources to achieve policy objectives. In the same way, analysing gaps or disconnects within the network can inform strategies to strengthen collaboration and coordination. Ultimately, by systematically mapping existing networks and understanding their dynamics, policymakers can develop more targeted and effective strategies that leverage existing resources and relationships to achieve desired policy outcomes.

Identifying entry points

Engaging with existing networks and identifying collaboration points and channels is essential for effective policy implementation. Once key stakeholders within the networks are identified, the next crucial step is to develop tailored communication strategies and channels to engage with them effectively. This process begins by understanding the diverse interests, preferences, and communication preferences of the stakeholders involved.

To effectively communicate with these networks, policymakers should adopt a multifaceted approach. This may involve convening stakeholder meetings or workshops to facilitate open dialogue and information sharing. Additionally, leveraging online platforms such as social media or dedicated forums can provide avenues for ongoing engagement and feedback collection. Tailoring communication messages to resonate with the specific concerns and priorities of different stakeholder groups is also paramount to ensure relevance and effectiveness.

Moreover, employing trusted intermediaries or community leaders can enhance communication efforts by bridging gaps and facilitating dialogue between policymakers and stakeholders. These intermediaries play a vital role in building trust, fostering mutual understanding, and ensuring that diverse voices are heard throughout the engagement process.

Furthermore, incorporating capacity-building activities into communication strategies can empower stakeholders to participate in the policy process actively. This may include providing training sessions, resources, or technical assistance to enable stakeholders to contribute meaningfully to policy discussions and implementation efforts.

Throughout the engagement process, maintaining transparency, responsiveness, and accountability are essential principles to uphold. By actively listening to stakeholders' perspectives, addressing concerns, and providing timely updates on policy developments, policymakers can foster trust and credibility within the networks.

Establishing collaboration protocols

Collaborating with existing networks can take various forms, each tailored to the specific objectives and dynamics of the policy context. One common type of collaboration is partnership building, wherein stakeholders join forces to achieve shared goals through coordinated efforts. This may involve formalising agreements or memorandums of understanding to outline roles, responsibilities, and mutual expectations. Another type of collaboration is information sharing and knowledge exchange, where stakeholders contribute expertise, data, or insights to inform policy development and implementation. Additionally, capacity-building collaborations focus on enhancing the skills, resources, and capabilities of stakeholders to address common challenges or opportunities collectively. Collaborative problem-solving approaches bring together diverse perspectives and expertise to develop innovative solutions to complex issues.

By understanding different ways to collaborate and adapting to what stakeholders need, policymakers can effectively use existing networks to make positive changes.

Good practices from focus group reports

- Dialogue network for a sustainable future for agriculture (Dialognetzwerk zukunftsfähige Landwirtschaft) – Germany: The Network is made up of practitioners from the agricultural sector and nature conservation. It provides a framework for discussing important future issues in various formats. The dialog network is made up of 50 participants. The participants were selected from more than 350 applications based on criteria such as location, type of farm and farm orientation. All participants are volunteering for these positions. The dialog network will meet regularly at the invitation of the Federal Ministry of Food and Agriculture (BMEL) and in cooperation with the Federal Ministry for Environment, Nature Conservation and Nuclear Safety (BMUV). The network entails the approach of peer-to-peer learning, which is seen as a good practice by all participants of the focus group.
- The Association Platform on the CAP (Verbändeplattform) – Germany: In the Associations Platform, the participating and signatory associations from agriculture, environmental protection, nature conservation, climate protection, consumer protection, animal welfare and development cooperation draw up joint statements and demands on the CAP. Beyond this, some of the individual associations have and pursue more far-reaching and specific demands. The German Federation for the Environment and Nature Conservation (BUND) in cooperation with the Working group for peasant agriculture (Arbeitsgemeinschaft bäuerliche Landwirtschaft - AbL) is responsible for coordinating the associations' platform. The work of the associations' platform is funded by the BMUV as part of the funding project ‘CAP after 2020: For a sustainable social contract with agriculture - implementing the requirements of society as a whole’ of the Federal Agency for Nature Conservation (BfN).
- Por Otra PAC is a Spanish coalition formed by 50 organisations of extensive livestock farmers, representatives of organic production, environmental NGOs, rural development, nutrition and consumer experts, among others. The Coalition works in a coordinated manner and from a plurality of experiences and interests, for a new CAP that contributes to the necessary agri-food transition towards sustainable, fair, responsible and healthy food systems. Over the past five years, the Coalition has actively participated in public consultations on the CAP, submitted technical proposals to the relevant authorities, proposed amendments, and held hearings.

3. Capacity building of ministry staff and stakeholders including relevant stakeholder groups

Building capacity amongst actors within the ministry and across wider stakeholders is crucial for meaningful engagement in the design of MS CSPs, empowering them to participate knowledgeably and constructively, and ensuring that their contributions are informed and relevant. The degree to which this will be required will itself depend on the level of expertise and engagement actors have in being involved in the development of policy heretofore. For example, traditional actors or farm lobby groups may have experience in this regard, whereas the broadening of CAP objectives in a more holistic sense requires the involvement of newer actors who are representative of wider society and may not have the same knowledge of the agricultural sector. Although this could be interpreted as a disadvantage, they have the benefit of bringing a new perspective and adding a new dimension to stakeholder discussions.

- It is essential to assess stakeholder knowledge, capabilities and technical capacities to identify gaps, and tailor engagement activities accordingly. It may be the case that not all stakeholders will require the same

degree of technical capacity, but a necessary level will be required in e.g. the interpretation of documentation and analysis. Some stakeholders will have institutional support in building necessary capacity, others will not. Therefore, dialogue and communication between stakeholders and the ministry (responsible for leading engagement) will be important to support stakeholders in building capacity. Continuous feedback from stakeholders to identify what is working well and where improvements are needed would be useful as challenges will not be universal.

- Resource requirements will differ amongst stakeholders, particularly newer groupings who may have less familiarity with CAP engagement processes and the specific policy landscape. Several anticipated resource requirements to set up, coordinate, engage, facilitate, and moderate the process are listed below:
- For those leading engagement efforts, such as agricultural ministries, it is crucial to ensure they are well-prepared and equipped with sufficient resources to effectively facilitate stakeholder engagement.
- Resources are required on the part of the ministry in presenting relevant information to stakeholders in a comprehensive way. This also needs to be practical, and in some cases concise. Therefore, resources will be required to prepare summary documents etc., so that resources are available in usable formats.
- In some instances, regard to relevant languages and consideration of regional contexts will be required to make the information more accessible.
- Access to technical experts to provide information and guidance on specific issues related to the CAP may also be needed.
- Administrative resources are required to oversee stakeholder engagement initiatives to facilitate engagement and ensure clear communication of the processes involved.
- Similarly, administrative and technical resources will be required on the part of stakeholder organisations to ensure that representatives are 'up to speed' with the information being presented to them and what is required on their part in terms of CSP design processes.

4. Timelines and formats

The timing and format of stakeholder engagement require a structured approach to ensure an effective consultation process leading to a well-informed and supported plan. Stakeholder engagement processes should be structured to ensure that input can influence policy and plan development.

The timing of the stakeholder consultation and participation plan should consider:

- The timeframes at different geographical decision scales for the elaboration of the CSPs and its associated documents:
    - At the European level: considering both the proposal of draft regulations and the final version of the regulations. Some national managing authorities may start first online public consultations before the final proposal of draft regulations to know the main expectations and needs for the future programming period.
    - At national level: once the final regulation is published, national managing authorities are aware of the official deadlines for the design of the plan and activate consultations. These can be linked to the design of the plan itself as well as to the associated documents such the Strategic Environmental Assessment.
    - At the regional level: especially in the case of regionalised MSs, or with a federal division of competences, it is important to respect the meeting times of Regional Authorities to inform the national plan.
- The time required by the managing authority, and other relevant authorities, to prepare consultation documents and the format of these. Sometimes the preparation of these consultation materials requires information from statistical services and other divisions so that the process can take several months.

- The time required for stakeholders to provide informed feedback to the consultation. Sometimes this is limited to a few weeks and makes it unfeasible for the feedback to be sufficiently elaborated given the complexity of the consultation or material provided.
- The time required for the managing authority, and other relevant authorities, to analyse the feedback and inputs received and incorporate them into the CSP design.

Main stakeholder involvement processes can take the form of:

Online public consultation (indicative duration between 1 and 6 months)

This requires structured methods of collecting and analysing feedback. It will normally be published online on the official channels of the CSP promoter (usually the managing authority of the CSP) and sufficient time will be given for stakeholders to provide practical feedback.

Where information is provided, it should be in accessible and understandable formats and sufficient time should be given for review to help the public participate in a meaningful way. This includes clear explanations of technical issues and potential impacts.

They can be activated at the beginning of the plan design to collect inputs to the SWOT or needs assessment or later once the design of interventions has started, requiring more technical inputs to the pre-established criteria in the interventions.

Ad hoc consultations with key informants (indicative duration between 1 and 3 months)

By utilising interviews, surveys, questionnaires, or soliciting written feedback on background documents, discussion papers, and consultation guidelines, it is possible to gather both quantitative and qualitative data on stakeholder opinions and preferences.

They are typically used in the later stages of plan design when some materials are already in draft form for the upcoming plan. The preparation of these materials usually takes a few months.

Working groups, focus groups and advisory committees (indicative duration between 1 and 10 meetings spread over a few months)

The groups are used for in-depth discussion and provision of detailed feedback on specific aspects of the plan.

As ad hoc consultations, they are typically used in the later stages of plan design when some materials are already in draft form for the upcoming plan but also to collaboratively complement the SWOT analysis and the prioritisation of needs.

Advisory committees are often organised with interprofessional organisations and sector representatives to discuss the design of interventions and even the budget allocated to them. They can also be established with the objective of ensuring a robust system of monitoring and evaluation of the plan at the level of the indicator plan.

Presenting design plan progress in public meetings and hearings (indicative duration between 1 and 2 days)

Either at the launch of the design process to inform relevant stakeholders of the start of the process or at the final stage of finalising the plan, one-day meetings or hearings can be organised to inform and communicate with key actors.

Specific tools

Specific process communication tools are helpful to ensure transparency, communication, accessibility and consistency throughout the process of CSP design and monitoring. These can be digital and analogue and will enable end users to communicate consistently with stakeholders (and the broader public) throughout the CSP design and monitoring process. This specifically includes decision-making processes, timelines and consultation results. Moreover, tools can also be used to gather feedback from stakeholders systematically and collect data, e.g. on questions of rural development and social sustainability.

Digital platforms and **websites** were used in many MS in the CSP design process to inform and engage stakeholders. They served different purposes and employed distinct functions:

(a) Gaining an overview of the process, timeline, upcoming events and news: To inform stakeholder groups about the policy design process, the underlying CAP architecture and how the process is implemented in the MS

websites can be used to share official documents, minutes of meetings, the general timeline and workings of the process as well as news and upcoming events.

Example: The **German** Federal Ministry of Food and Agriculture dedicated a subsection of their website to the CSP design and monitoring. It includes information on the process and the monitoring committees, funding data, a timeline of the process, official documents and news.

(b) Sharing of and commenting on documents: Digital platforms are used to upload documents (a) to inform the public and stakeholder groups about the policy design process and (b) for stakeholders to comment on document drafts. They could furthermore be used to enable stakeholders to share documents with each other or to collaborate on shared statements and drafts.

Examples: In **Croatia** the tool E-Savjetovanje (E-Consultations) is used to enable wider public consultations in the process of adopting laws, other regulations and acts. The main goal is to increase the participation of citizens and stakeholders in the law and policy-making process, in line with the EU better regulation agenda. Documents that are under consultations are published on specific website, available for commenting.

Similarly, in **Finland** the official online tool and website for organising public consultations Otakantaa.fi provides a reliable platform for receiving feedback from a diverse array of stakeholders on different issues. The CSP draft was divided into parts and full texts were provided in PDF format. Stakeholders could comment on different sections. The comments are visible to the public, encouraging open discussion and transparency.

(c) Consultations, Surveys, and Voting*:* Digital platforms are used to implement and support the consultation through online questionnaires, surveys and feedback mechanisms.

Examples: **Romania's** Ministry of Agriculture and Rural Development (MARD) implemented an online consultative tool to gather diverse perspectives in agriculture and rural development. This participatory process involved feedback through surveys, questionnaires, and online thematic discussions, establishing correspondence between needs and SWOT components. The outcomes of this participatory process led to a shared agreement on the importance levels of each identified need and the required interventions. It also facilitated grouping similar needs by prioritising interventions.

The Ministry of Agriculture, Institute of Agricultural Economics in **Hungary** similarly used an online consultation tool to reach a large audience quickly through the media, ensuring wide dissemination of the Strategic Plan and encouraging public participation. The principles of the Strategic Plan and its design process are presented to the public via media, alongside an online questionnaire.

(d) Discussion forums/chats*:* The interaction and networking between stakeholder groups can be an important part of stakeholder engagement in the CSP design and monitoring. This can enable the formation of political will, balancing of interests and counteract structural asymmetries between stakeholder groups. Discussion forums and chat functions on digital platforms can contribute to this.

Examples: In **France** the tool Impactons ! Public debate allows for the discussion to take place on the objectives that are set for the CAP, for citizens to take up the issues at stake, and supports dissemination among citizens. It included a 3-day debate involving a panel of randomly selected citizens, an online platform for sharing opinions and proposals, and public debates across French regions. The online platform enabled participants to comment, suggest, and deliberate on each other's ideas. The diverse input collected was compiled into a detailed report by the Commission and submitted to the French Ministry of Agriculture and Food. This report informed the Ministry's public statement on the lessons learnt from these debates, influencing France's National Strategic Plan for the Common Agricultural Policy (CAP) 2021-2027.

(e) Analogue tools: Some of these functions can also be implemented in person. This includes information about the CAP architecture and CSP design and monitoring process, surveys, commenting on documents, gathering feedback and deliberating.

Examples: Open Public Consultations have been employed in **Ireland** to gather diverse insights and opinions across regions and stakeholders, ensuring that a wide array of perspectives is considered in policy-making. These consultations involve various methods such as written submissions, surveys, focus groups, and workshops to collect feedback from stakeholders regarding CSP design, monitoring, compliance, performance, and clearance. The outcomes are documented in written reports, which include comprehensive summaries of the submissions, survey results, focus group findings, and workshop conclusions. These reports are made publicly available on the Ministry website.

Town Hall Meetings have been implemented in **Ireland** to foster an inclusive and participatory environment, allowing for a broad spectrum of views from various regions and stakeholders. Meetings are conducted throughout the country on various dates, offering an accessible platform for stakeholders to share their views, concerns, and suggestions regarding CAP reforms.

(f) Further functions: Process communication tools could also include ways to **introduce the CAP architecture and the CSP design and monitoring processes** to stakeholders. Breaking down the necessary information – legal and procedural – through introduction videos, infographics, FAQs or online/in-person events could level the playing field for the different stakeholder groups. To create this accessibility and mutual understanding could directly address the challenge of dealing with the complexity of the multi-level governance of the CAP and the CSP documents. Moreover, it could be helpful to have sections of digital platforms that are accessible for the public as well as **subsections for the collaboration of engaged stakeholder groups** only. This would allow to bundle different functions of digital platforms including possibility for more informal exchange and formation of political will.

Further digital platforms that provide similar functions are:

Cartodebat (https://cartodebat.com/): a web-based format of structured debate on topics such as land development, public policy or issues of science and society. The functions include

Contributing: The signature characteristic is data-visualisation in the form of a thematic graph presenting a comprehensive overview of discussion topics, enabling individual participation while navigating levels of increasing granularity. The platform enables commentary and discussion on questions prepared and documented in advance by the debate organizer.

Reconstructing: To ensure a clear connection between in-person and online debates, in-person events are reconstructed in a format that makes it possible to follow the discussion on the platform, thus broadening and diversifying the panel of participants.

Analysis: The technology enables analysis of large text corpi in support of a transparent interpretation.

Decidim (https://decidim.org/): a digital platform for citizen participation based on free/libre, open and safe technology. Decidim can be used by public or private organisations with hundreds or thousands of potential participants. The features include:

CitizenOS (https://citizenos.com/): a secure, free and open source participation platform for organisations and communities to connect individuals from diverse locations and time zones. The platform enables people to engage in discussions and make collective decisions. The features include discussions (private and public) and voting.

3.2.5. Resources needed

Ensuring transparent and meaningful stakeholder engagement requires mostly resources concerning time, human resources and capacities. Technical resources can be helpful in enabling consistent process communication.

Time: The most time is needed in the setting up and planning stage of the stakeholder engagement including

- clarifying the objectives of stakeholder participation that incorporates stakeholder expectations;
- a process for identifying, mapping and understanding stakeholders; and
- outlining participation methods, measures to remove barriers participation, processes for documentation, feedback, evaluation as well as governance arrangements,

needs several months (3-6). Moreover, time is needed to re-evaluate the set-up throughout the process.

The implementation of stakeholder engagement runs throughout the design and monitoring of the CSP and hence time is needed for the different cycles of participation of stakeholder groups consistently.

Human resources: Staff within the Managing Authorities or associated institutions are needed to conduct the planning, implementation and evaluation of stakeholder engagement. How many person months are needed is context-specific and depend on the scope of negotiation within the CSP design, the complexity of the stakeholder landscape, the specific tools that are used (e.g. online consultations versus in-person participation, set-up of digital platform) as well as the capacities existent among staff as well as stakeholder groups.

Capacities: Capacities are needed among staff responsible for planning, implementing and evaluating stakeholder engagement as well as stakeholder groups. Knowledge of stakeholder networks and competences in process facilitation, communication as well as methods and tools of participation are needed for the Managing Authority staff. In case digital platforms or online tools are used, capacities are necessary to set up and work with the needed technical infrastructure.

Capacities needed for the stakeholder groups include a fundamental understanding of the CAP's architecture and the CSP design and implementation/monitoring procedures. Moreover, capacities of engaging with policy processes, coordinating with other stakeholders and technical capacities in terms of engaging with potential online tools are required. Personnel capacities are needed at given times to engage with the CSP design and monitoring process.

Technical resources: If digital platforms or single online tools are used to enable stakeholder engagement, technical infrastructure is needed to set-up and work with the platform. This can include the usage of existing open-source or government-hosted platforms.

3.2.6. Outcomes

Outputs from the different engagement process tools include a **written plan** that records objectives of stakeholder participation that incorporates stakeholder expectations, the process for identifying, mapping and understanding stakeholders, participation methods, measures to remove barriers for participation, processes for documentation, feedback, evaluation as well as governance arrangements. A further helpful output is a **list or map of stakeholder groups** resulting from the stakeholder network mapping. Further, outputs from engagement tools include **reports** and **data sets** as results from surveys, consultations and voting. Moreover, **statements** from stakeholder groups and networks can be part of the stakeholder engagement processes.

3.2.7. Integration in CSP design process

Tools for stakeholder engagement and process communication run throughout the CSP design and implementation process and need to be integrated with all policy steps and tools therein. The preparation of the stakeholder engagement and drafting the plan can rely on and feed into the vision building tool (WG #1). Knowledge compiled and potentially data gathered throughout the stakeholder engagement can and must be integrated within several tools, such as scenario building, the *IOI matrix* as well as the *intervention logic*. Simultaneously, outcomes from these tools need to be integrated in the stakeholder engagement. Tools for prioritisation (WG #6) are essential for stakeholder engagement and can feed into different steps of need assessment and intervention design.

3.2.8. Limitations or implementation challenges

Employing tools in stakeholder engagement and process communication face several challenges that can complicate coordination and decision-making. **Differences in opinions and perspectives among stakeholders** can significantly impact the timing of activities and can require adaptation in tools and methods. Moreover, tools can only buffer but not entirely solve **challenges that emerge from coordination of timing in multi-level governance settings**. **Initial resource allocation** can pose a problem, as stakeholders may start with disparate levels of support and funding, creating imbalances that need to be addressed early on. Additionally, finding a **common language** among diverse stakeholder groups is essential but challenging, as varying terminologies and communication styles can hinder mutual understanding. Furthermore, **structural asymmetries between stakeholder groups**, such as differences in power, access to information, and influence, can be mitigated but not entirely resolved, necessitating continuous efforts to ensure equitable participation and representation.

3.2.9. Implementation Example: Structural Funds in Slovakia

In 2021 began the preparation of the Operational Programme Slovakia as the only major programme through which European funds are to be distributed and implemented in the program period 2021-2027. The responsible Ministry of Investments, Regional Development and Informatization of the Slovak Republic established already in the year 2017 the Working Group *Partnership for Cohesion Policy 2020+* representing government institutions and civil society organisations. The nominations for memberships were presented and selected through the Office of the Plenipotentiary of the Government of the Slovak Republic for the Development of Civil Society and the Chamber of NGOs of the Council of the Government of the Slovak Republic for NGOs. It was an opportunity for civil society to

participate more intensively in the process of preparing EU funds through comments and feedback during the preparation phase. The Ministry offered up to 25 seats to civil society organizations. Subsequently, working groups for all 5 goals were established into which all civil society organizations could also provide membership nominations. Following the selection procedure, the Working Group was formally established by the minister of Investments, Regional Development and Informatization, who also issued a Statute governing the scope, composition, tasks and duties of members and stipulating the conditions for the WG's meetings. A Secretariat of the WG was created at the Ministry. To kick-start preparation of the national position to the next Cohesion Policy post 2027 in March 2024, the members were approached to confirm their interest to continue to serve for the next programming period. The views to the draft document 'Future of the EU Cohesion Policy after the year 2027' were collected through an online questionnaire and the results are publicly available on the website of the Ministry.

3.2.10. Further reading

- The *Community Tool Box* offers tips and tools for taking action in communities**:** https://ctb.ku.edu/en/about-the-tool-box
- *The Action Catalogue* is an online decision support tool that is intended to enable researchers, policy-makers and others wanting to conduct inclusive research, to find the method best suited for their specific project needs: http://actioncatalogue.eu/
- *The Participatory Democracy Resources - People Powered* provides a toolbox of accessible and practical resources that governments and organizations can use to plan, implement, and improve participatory programs.
- *Participedia* is a global network and crowdsourcing platform for researchers, educators, practitioners, policymakers, activists, and anyone interested in public participation and democratic innovations: https://participedia.net/
- The *Dialogue Matters resource Library* makes a variety of documents about stakeholder facilitation and participation available: https://dialoguematters.co.uk/resource-library/
- *Agripedia* gives an overview of stakeholder analysis and mapping: https://agripedia.ch/strategidea/wp-content/uploads/sites/7/2018/12/BIBLIO_INDEX-02_SDC_2009_Knowledge-Management-Toolkit_Stakeholder.pdf
- *The Observatory of Public Sector Innovation by the OECD* collects different toolkits for stakeholder engagement: https://oecd-opsi.org/guide/open-government/bring-new-perspectives-and-stakeholders-into-policy-process/

3.3. Prioritisation and decision-making

3.3.1. Introduction

In most cases and for most policies, the diversity and complexity of needs are in any country and programming period too vast to tackle with limited financial resources and administrative capacity. Therefore, when designing a policy programme, certain choices have to be made to optimise the efficiency and effectiveness of the use of public finance and offer taxpayers the highest value-for-money.

The choice of interventions and the share of budget allocated to certain needs have to be transparent and understandable to all stakeholder groups to be considered legitimate. Therefore, in the process of preparing the CSPs, scientifically proven tools have to be applied. These tools also have to be easy to understand and use, as well as not too time- and budget-consuming, to be available for common application.

The new CAP delivery model creates opportunities for MS giving them certain degree of flexibility to customise their interventions based on their unique needs[1]. This however is accompanied with challenges such as harmonisation of diverse national interests and goals with overarching EU objectives. MS are legally obligate to prioritise of needs and this to be done with engagement of the broad representatives of CAP stakeholder. Additionally, justification why

certain identified needs were omitted should be provided[2]. All these make the process of the prioritisation of needs complicated and difficult to govern namely while stakeholders prefer contrary needs.

There is a wide range of tools used by public administration and private companies to rank different choices available in the process of decision-making. When applying prioritisation tools to CSP, the tool used must offer specific characteristics. Firstly, the method must balance the influence of different stakeholders on the rank of the identified needs to offer the outcomes that take into account preferences of all partners. Simultaneously it should include representatives of different stakeholder groups possibly on country and regional level. This is needed to make the process more participatory and deliberative. Thus, a balanced prioritisation of needs has to be applied.

3.3.2. Challenges addressed by tool / approach

Implementing a well-designed prioritisation process can improve the hierarchical ranking of the needs identified and thus improve the efficiency and efficacy of the co-design of the use of the resources available for the CSP. For a well-designed prioritisation, it is vital to carefully choose representatives of the key stakeholder groups relevant for the CSP to ensure that the CSP design follows the rules of participatory deliberative governance, a vital part in modern good governance and in times of complex and multi-faceted transition facing EU citizens. On the other side wide range of stakeholder representativeness in the prioritization of needs process is desired to ensure that CSP will address disadvantage groups. Past experiences of MS shows that there is a limited time window to prioritise needs which often runs in parallel with other phases of CSP design. Such a limitation indirectly favoured the historically shaped hierarchy of needs namely preferring stakeholders connected with agriculture over rural development (EC 2021b). Another challenge related to the prioritisation of CAP needs is that it is necessary to take into account the interplay of individual needs taking into account different interactions between them ranging from conflict to cooperation and subsequently the interventions designed to address them. The focus groups of end users conducted by Tools4CAP in 2023 pointed to communication problem resulting among others in stakeholder inability to express respective needs. Namely in case of regional disparities some regional organisations were unable to be adequately empower presented on MS level. As a result ‘regional needs often remained separate from national considerations’ despite well recognised and documented regional hierarchy of needs.

3.3.3. Involved actors and end users

End users are not only the people responsible at the ministry for designing the CSP but also all the stakeholder groups. This relates not only to the stakeholder representatives who will personally be involved in the prioritisation process. All the stakeholders willing to comment the draft versions of CSP have to be familiar with the method used for prioritising the identified needs to be able to contribute to co-designing the CSP.

3.3.4. Process description

The process starts with the identification of the tasks in the process of designing the CSP that require the use of ranking methods. These are not only the needs that have to be tackled by the policy but also the distribution of the financial resources as well as the stakeholder groups.

The first step is related to integration needs defined during the SWOT with needs identified in other types of the analyses conducted at the inception the process of designing the CSP. At this stage it is important to define interactions between the identified national/regional needs and the CAP priorities, namely, to analyse possible contradictions.

To make the process more transparent the following steps can be identified:

1. Needs identification based on the SWOT analysis and visioning exercise.
2. Identification of links between the needs and the CAP priorities done using evidence-based analysis conducted by experts.

   Choice of the prioritisation method done based on expert cost-benefit analysis of different methods taking into account the time and cost of different options as well as the advantages and disadvantages of the methods identified.
3. Identification of the criteria to be used for prioritisation.

4. Assessment of the relative value of each decision criterion.
5. Calculation of the weights of the criteria.
6. Identification of the relevant stakeholder groups to be involved in the prioritisation process.
7. Identification of the representatives of the stakeholder groups to be involved in the prioritisation process.

   This is a key step in ensuring the balance of stakeholder interests and priorities they have. Therefore, the process of choosing the relevant stakeholders should be carefully conducted and transparent to all stakeholders:

   Basically, our tool will be based on a 'committee' which should be a body guaranteeing representativeness and on the platform that was used for the consultation.

   The platform would broadly collect votes on prioritization, whereby each 'voter' would be required to register and indicate the area that is key for him/her (e.g. environment) and select 3 priorities and rank them according to importance, where number 1 is 3 points, 2 is 2 and the third is 1 point.

   As a result, we would have a set of votes for each thematic area with a hierarchy of 'needs' ordered according to the points awarded.

   The Committee - using the list - would make the final decision and could set up additional bodies to evaluate the results of the broad consultation. It could introduce a system to divide the different stakeholders in the CSP, such as agricultural organisations have a 40% share of the voting pool, local administrations 20%, etc. (then the platform would also need to indicate which group the voters identify with).
8. Conducting the prioritisation process.
9. Analysing the consistency of the responses.

Methods for prioritisation include for example (a) cumulative voting, (b) multi-criteria-analysis (MCA), and (c) Method for Impact Assessment of Programmes and Projects.

Cumulative voting

Cumulative Voting (CV), also referred to as multi-voting, dot-voting, or the 100-point method, presents a straightforward approach to prioritize a list of items. In CV, each participant in the prioritization process is allotted a certain number of hypothetical points to distribute among the items being prioritized. In its basic form, participants have the freedom to allocate all points to one item or distribute them among several items. Allocating more points to an item elevates its priority. More sophisticated versions of the technique allow for the incorporation of constraints or the utilization of aggregate and/or weighted values (Cagliero et al. 2021a).

The primary advantage of CV lies in its **relative simplicity and efficiency in generating priorities on a ratio scale** (Juristo et al. 2013). It is notably faster and more accurate compared to other methods, which participants find easy to use (Ahl 2005). However, there are certain drawbacks associated with CV. Firstly, like many prioritization techniques, it becomes **more challenging to use with a larger number of items**. Secondly, the fundamental form of CV is **vulnerable to strategic manoeuvres**, where participants distribute points based on their perceptions of others' actions to boost the priority of their preferred items (Vestola 2010). For instance, if a participant anticipates others spreading their points across multiple items, they may allocate all their points to a single favoured project to enhance its relevance on the overall priority list, a tactic known as 'plumping.'

In the design process of the Common Agricultural Policy (CAP) strategy, cumulative voting was employed as a **participatory decision-making mechanism to ensure representation and consensus among stakeholders**. Cumulative voting, a method of proportional representation, allowed stakeholders to allocate a fixed number of votes across multiple options, reflecting their preferences on various aspects of the CAP strategy. This approach enabled stakeholders to express nuanced preferences and priorities, mitigating the risk of majority domination and ensuring that diverse perspectives were considered in the decision-making process. Through cumulative voting, stakeholders were able to signal their support for specific policy measures, funding allocations, or strategic priorities, thereby informing the development of the CAP strategy in a transparent and inclusive manner. The use of cumulative voting facilitated constructive dialogue, compromise, and ultimately, the formulation of a CAP strategy that reflected the collective interests and aspirations of stakeholders across the agricultural sector. Varieties of the tool were used for example in Lithuania (Cumulative Voting Approach), Romania (Voting for Needs Prioritisation), Slovenia (Need Scoring Tool) and in Germany (Number Voting).

Italy – Constrained Cumulative Voting

Constrained cumulative voting (CCV) method is upgraded CV technique adjusted to CSP requirements such as inclusion of wide range stakeholders and to facilitate collective discussion and prioritisation of territorial needs.

Functioning: Constrained Cumulative Voting allows stakeholders to prioritise various intervention areas by allocating a fixed number of points across different options, thus reflecting the relative importance they assigned to each area. This method allowed for the aggregation of preferences from various regions and autonomous provinces in Italy, facilitating a collective decision-making process in identifying and prioritising territorial needs, supporting the overall decision-making process. After applying the cumulative voting tool that utilises commonly accessible software with calculation spread sheets on the national level, it has also then been replicated on a regional or local scale. Furthermore, the tool also had a scale-out, as it was used in Italy as part of research on organic farming. This process is in line with the EC's legislative proposals requiring a sound and well-founded logic of intervention.

Outputs: The process generates a shared consensus on the importance of each need and categorises them into homogeneous groups according to their importance for intervention. This categorisation is detailed in the spread sheet allowing for monitoring final results and allows revisions and corrections to the distortions with the use of recursive rounds.

Source: Cagliero et al. (2021a)

Multi-criteria analysis (MCA)

Multi-Criteria Analysis (MCA) offers a structured method to facilitate **complex decision-making processes**. It encompasses various techniques aimed at assessing, prioritizing, and ranking alternative solutions based on predetermined criteria and objectives (Dean 2022). MCA proves particularly effective in addressing complex decision dilemmas characterized by multiple, often conflicting, objectives and criteria. It enables the **identification of a preferred alternative**, as well as the ranking or shortlisting of potential alternatives. Furthermore, MCA accommodates diverse criteria expressed in different units, such as monetary costs, environmental impacts measured in biophysical units, or qualitative assessments of aesthetic landscape quality. Recognizing the need to balance favourable performance in certain criteria with inferior performance in others, MCA provides a framework to navigate such **trade-offs**, visually depict alternative performance across all criteria, and ultimately formulate informed decisions (Geneletti 2014).

The Joint Research Centre of the European Commission (JRC) developed the software tool SOCRATES (**SO**cial multi **CR**iteria **A**ssessmen**T** of **E**uropean policie**S**) to conduct social multi-criteria evaluation (SMCE) for ***ex-ante* Impact Assessment (IA) problems**.

MCA has been used in some European MS to prioritize funding allocations, support agri-environmental schemes, and inform policy decision-making processes. In Finland, an Internal Excel Tool was used in Needs Assessment, in Lithuania a Comparative Analysis was used in the Intervention Setting and Performance Review and a Logic Model was employed in Romania for the Financial Allocations.

Spain – MCA in Needs Assessment

The tight schedule for CSP preparation did not permit the use of models or other tools that required rigorous testing. Thus, a multicriteria analysis was adopted to efficiently prioritise identified needs based on specific criteria.

Functioning: Initially, 85 distinct needs were pinpointed. These needs were subsequently categorised into five significant groups: economic, environmental, rural, consumer, and AKIS-related needs. A multicriteria analysis was then employed to determine the importance of each need based on the following criteria: 1. Commitment: This gauges the potential synergies with other policies and assesses alignment with the objectives set forth by the EU, Spain, or other political priorities. 2. Connections: This evaluates the association between the identified need and other objectives. 3. Measurability: It examines whether the accomplishments of this need can be quantitatively gauged, mainly through impact or result indicators. 4. Relevance: This criterion evaluates how crucial the need is concerning its associated objective. By amalgamating all these criteria, the needs are ranked based on three categories of importance: +++, ++, and +. Additional insights regarding the significance of each

need for specific regions were also incorporated through the Territorial Criterion, determined by two factors: extent and intensity.

Outputs: The result of this analysis is a classification system that prioritises the needs.

Source: Spanish Ministry of Agriculture, Fishery, and Food (2020)

In other policy contexts and outside Europe there are many good practices how Multi-Criteria Analysis (MCA) has been applied in decision-making process.

Canada: MCA has been utilized in various sectors in Canada, including environmental management, energy policy, and healthcare. Canadian federal agencies, provincial governments, and municipal authorities have applied MCA to assess the impacts of policy options, prioritize investments, and engage stakeholders in decision-making processes (Vining and Boardman 2004).

MAPP (Method for Impact Assessment of Programmes and Projects)

MAPP (Method for Impact Assessment of Programmes and Projects) is a **participatory method** for assessing the impacts of programs and projects. It is a methodological framework that combines a **qualitative approach** with participatory evaluation tools. While preparation can be quite extensive and the method can be time consuming, it proves to be fruitful for evaluation and impact assessment, having the potential to bring diverse stakeholders together and taking into account the impact of and coherence with other programmes and projects (MEN-D 2020). With the use of point system allows for evaluation change and impact of different policies and prioritize them according to value of cost-benefit ratio. The advantage of this method is linked with ability to convey productive discussion with stakeholders with diverse level of knowledge. The method consists mainly of three steps:

Preparation: As a preparatory measure, analyses of the progress of implementation of individual measures and sub-measures are carried out based on the funding data. Outcome indicators are determined, and an inventory of existing and relevant impact and context indicators is conducted. This serves as input and a basis for discussion for the assessment that takes place in workshop formats.

Trend analysis: This step is the first part of the assessment in a workshop with experts and/or stakeholders. It aims to assess the state and trend of the central aspects to be assessed. To make the given evaluation questions manageable, they are broken down into central components (e.g., biodiversity in arable land, biodiversity in grasslands, greenhouse gas emissions from agriculture, nutrient inputs into groundwater and surface water, etc.). To substantiate the evaluation, selected indicators are presented for each component and briefly discussed if necessary. This process can also highlight specific problem areas or regional 'hotspots'. Furthermore, gaps and weaknesses in the existing indicators can be identified. The components are qualitatively assessed in a plenary discussion regarding their status and current trends (retrospectively for the past years) based on the available indicators and supplemented by expert assessments (increasing, decreasing, or stable).

Impact matrix: The relevant measures and indicators for program implementation are briefly introduced. Subsequently, these measures and the program as a whole are assessed concerning their contributions to the environmental aspects identified in the trend analysis. The program under evaluation is also compared to other instruments, each of which has also been evaluated for its respective contribution (e.g., 1st pillar of the CAP, regulatory law; ecological compensation measures). During a plenary discussion, the measures are assigned impact levels -, 0, +, and ++. The assessment of the instruments' impact as a central step is carried out as follows: Each instrument can be marked by each participant regarding its impact on each environmental aspect with a coloured dot (5 levels from 'not at all' to 'very large', represented by 5 different colours).

Germany – MAPP in the evaluation of the regional Rural Development Program

In Germany the MAPP approach was used to complement the evaluation of the RDPs in Baden-Wuerttemberg and Rhineland-Palatinate, which are based on quantitative indicators, surveys, and literature analyses in order to place the programs within a larger context.

Functioning: In the two federal states, with the support of the program coordinators, two workshops were organized respectively: one workshop on biodiversity and another on abiotic topics such as water, soil, and climate. Each workshop was attended by 10 to 25 experts from state authorities and institutions, associations, and academia. Participants were selected to be familiar with the development program and relevant measures, knowledgeable about the (partial) aspects to be evaluated, mindful of regional differences, and able to contextualize program effects in relation to overall developments. Key aspects of the approach included trend

analysis – i.e., assessing environmental conditions and past trends based on indicators – and creating an impact matrix to assess the contributions of identified measures (groups) and instruments to the respective thematic areas.

Source: MEN-D (Ed.) (2020)

3.3.5. Resources needed

The tool can be implemented without any dedicated software. Several staff members are needed to prepare the implementation of the tool. Financial resources are also needed to reward the representatives of key stakeholder groups which is needed to ensure their engagement and safeguard the participatory character of the prioritisation process.

3.3.6. Outcomes

The achieved ranking of the identified needs is based on the clear decision-making process. Thus, the outcome is not biased by the preferences of any group of stakeholders and can be accepted as a policy serving the developmental goals identified in the process.

3.3.7. Integration in CSP design process

Prioritisation is the next step in CSP design after the SWOT analysis and needs identification. The prioritisation process determines the budgetary allocation for policy measures. Prioritisation needs to be included in the participatory approach. The representative members of the key stakeholder groups have to be included in the prioritisation process to ensure a balanced representation of actors having a say in the design of CSP.

3.3.8. Limitations or implementation challenges

There are numerous approaches to designing a prioritisation process. As many of them are complicated, the procedure may not be clear to all stakeholders leading to them contesting the results and needs identified to be of key importance. Moreover, the choice of stakeholder representatives is sensitive and can be biased by the preferences of the staff designing and implementing the process. Also, the time constraints can lead to not choosing the first-best representatives of the key stakeholder groups and insufficient allocation of resources for the introduction and explanation of the scenarios and modelling results and planned policy measures.

3.3.1. Implementation example: Swedish Competition Authority

Prioritisation is used to select the issues to be tackled. The limited human and financial resources force the use of prioritisation to achieve the highest efficiency possible and to use the available public resources responsibly. It is not only used at the initial selection process, but continuously to assess whether the case in progress should be continued.

The criteria taken into account in the prioritisation process include:

1. Whether the issue at hand causes harm competition and consumers.
2. Whether the conditions at hand allow for the issue to be effectively investigated and remedied.
3. The deterrent effect and the need for guidance.
4. Whether the Swedish Competition Authority is best placed to intervene

3.3.2. Further reading

- An overview of the *Swedish Competition Authority's* Prioritisation Policy for Competition Law Enforcement and Supervision of the Public by *the Swedish Competition authority*: english_prioritisation-policy-for-competition-and-public-procurement.pdf (konkurrensverket.se)

- The *World Health Organisation* provides a training package for policy priority setting: WHO EMRO | Training package for policy priority setting | Training package | Evidence and data to policy
- *ProductPlan* offers an overview of the MoSCoW method: What is MoSCoW Prioritization? | Overview of the MoSCoW Method (productplan.com)
- An example of a a national policy on prioritisation of referrals to *Children's Disability Network Teams* in Ireland*:* national-policy-on-prioritisation-of-referrals-for-cdnts.pdf (hse.ie)
- The *British government* offers a guidance on their prioritisation framework: Overview of the Prioritisation Framework - GOV.UK (www.gov.uk)

3.4. Intervention logic

3.4.1. Introduction

Intervention logic (IL) in strategic planning is essential for developing effective and efficient policies. It provides a framework that outlines the **relationships between an intervention's:**

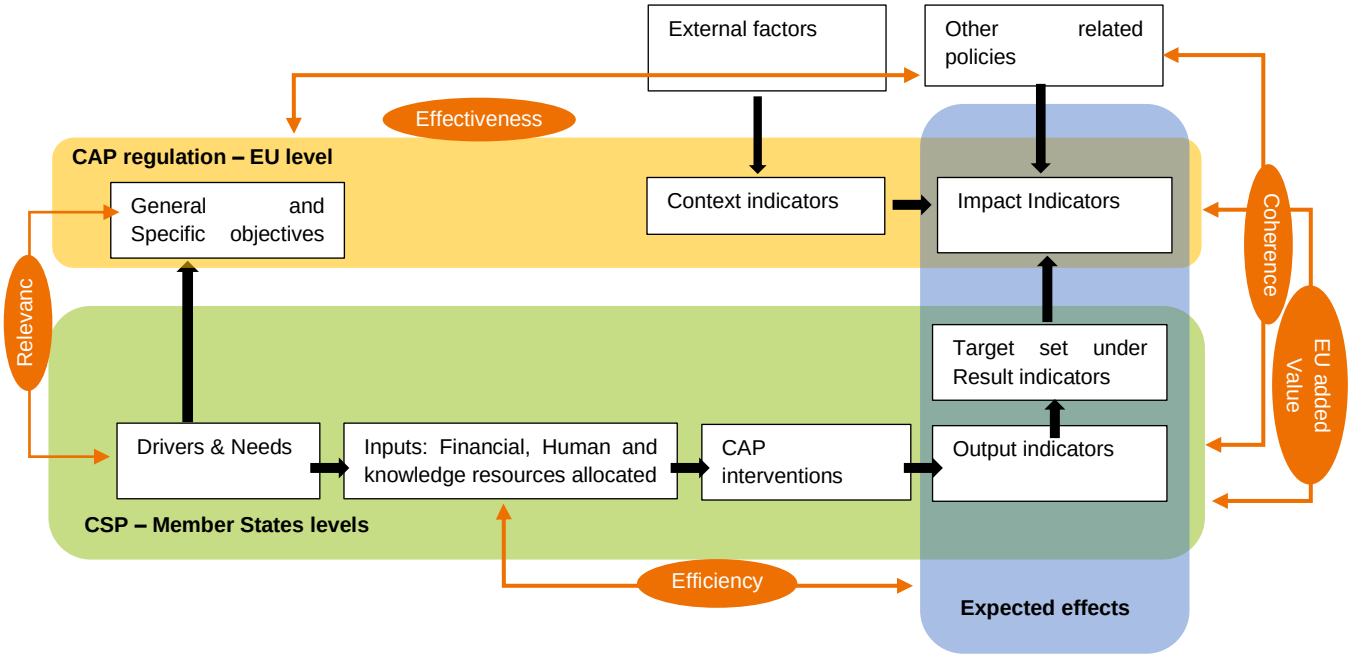
- **inputs** (allocated resources, e.g. time and money)**,**
- **activities** (interventions, e.g. income support measures or agri-environmental schemes)**,**
- **outputs** (what is accomplished with the resources allocated, e.g. number of beneficiaries of income support)**,**
- **outcomes, including results** (immediate changes arising from an intervention, e.g. number of young farmers benefitting from measures supporting young farmers) and **impacts** (broader/long-term consequences of an intervention, e.g. agricultural land covered by landscape features).

This approach ensures that each component of a policy contributes directly towards achieving the set objectives, enhancing transparency and accountability. However, a necessary precondition for designing an effective *IL* is a good understanding of the policy context, including the wider environment, including other policies, that may affect the intervention's outcomes.

In regulatory frameworks like the EU's 'Better regulation guidelines' (EC 2021a), *IL* is used to assess whether policies are likely to meet their goals. This involves evaluating the relevance, coherence, effectiveness, and efficiency of the intervention, ensuring optimal use of resources and alignment of activities with intended results. In the context of the EU Common agricultural policy, while applying a sound *IL* would have been an implicit demand for sound policy-making in the previous programming period, the requirement of developing interventions based on a sound *IL* has become enshrined in CAP legislation.

The diagram below draws inspiration from the Better Regulation Toolbox (BRT) (EC 2023) but has been tailored to suit MS's circumstances, providing a simplified overview of *IL* at the national level. Furthermore, it delineates the role of the evaluation exercise at the national level in accordance with the five prescribed evaluation criteria outlined in the BRT.

Figure 7. A simplified depiction of *IL* for CSP design.



Source: Tools4CAP based on BRT, EC 2023

Moreover, IL facilitates systematic evaluation of policy impacts, supporting evidence-informed policy-making. By defining what are an intervention's expected impacts and its associated measurement methods, it enables policymakers to collect data systematically, assess actual impacts, and adjust strategies as needed. This not only helps in achieving policy goals but also enhances the transparency and credibility of the policy-making process among stakeholders and the public.

In practice, IL promotes the continuous improvement of policies. It integrates lessons learned from current and past actions into future planning, fostering an adaptive regulatory environment. Thus, IL is a fundamental part of strategic planning, crucial for effective policy-making in dynamic and complex contexts.

Methodologically, designing an *IL* often starts with a high-level overview, including a needs analysis, goal setting, and the identification of actions and impacts. More specifically, the methodologies involved are specific to each problem area and each logic chain.

A typical structure for *IL* includes identifying needs, objectives, inputs, activities, expected outputs, results, impacts, as well as the assumptions about the linkages between these elements (Macleod 2016). This structure helps in mapping out the causal pathways from inputs to impacts, structuring evidence, taking into consideration both intended outcomes and potential unintended consequences. As detailed by the BRT (2023), the specific objectives to which the policy options should correspond set out concretely what the policy intervention is meant to achieve; for each identified problem, there should be one or more specific objectives, which form part of the *IL*: drivers – problems – general objective – specific objectives – policy options.

In the context of CSPs, MSs do not possess complete autonomy in formulating their IL. Certain components are predetermined by the CSP regulation at the EU level1. For example, they must allocate at least 25% of their direct payments budget to eco-schemes, and at least 35 % of second pillar funds to measures to support climate, biodiversity, environment, and animal welfare. Moreover, at the EU level, the EC is tasked with ensuring that the collective contributions of all MS align with EU-level ambitions and objectives. On the other hand, countries are allowed to transfer up to 25% of their CAP allocations between income support and rural development in order to better adapt the policy to their farming sectors' priorities.

The process of developing an *IL* includes considering assumptions and risks, and anticipating inputs, activities that will happen, actors' reactions and the expected outcomes in the short, medium, and long term. This might include a situation analysis that expressly states objectives and anticipates outputs, and may also include communication with stakeholders to better embed them in the local area and assess their comprehensiveness and relevance (Macleod 2016).

The *IL* is in itself an 'output' of a process, but part of designing an IL is stating the expected outputs, results and impacts of an intervention, and detailing how they are supposed to be achieved. In a broad sense, an ideal 'output' of a sound *IL* is an effective, justified, evidence-based, cost-effective and balanced (in terms of stakeholder interests) policy intervention.

3.4.2. Challenges addressed by the tool / approach

IL is mainly seen as an approach supporting intervention setting, coherence and impact assessments (Sterly et al. 2024). The BRT highlights that every policy initiative depends on an IL. This logic is crucial for guiding the policy's development, implementation, monitoring, and evaluation, and it assists in pinpointing the necessary evidence at each stage of the policy cycle. Therefore, establishing a sound IL is not merely beneficial but essential and fundamental to policy design. It contributes to the rational and evidence-based allocation of public funds.

Using IL in strategic planning offers several key benefits that can significantly enhance policy-making and governance and address some of the challenges that were highlighted with regard to decision-making done in the first round of CSP preparation (Sterly et al. 2024):

- **Evidence-based decision-making:** The framework encourages the collection and use of data, indicators and appropriate metrics throughout the policy cycle. This data-driven approach supports evidence-based decision-making, allowing policymakers to make informed decisions that are supported by empirical evidence rather than assumptions.
- **Clearer setting of objectives:** IL requires defining clear and measurable objectives at the outset of a policy initiative. This clarity helps ensure that all subsequent actions are aligned with achieving these goals, reducing the risk of misdirected efforts and resources. A clearly defined *IL* also helps to prioritize and appropriately address policy needs.
- **Enhanced transparency and accountability:** By mapping out how inputs convert to outputs and lead to desired outcomes, IL facilitates greater transparency in the use of resources. This visibility improves legitimacy and accountability, as stakeholders can see how resources are being utilised and what impacts they are having.
- **Building stakeholder consensus and support:** By transparently demonstrating how each part of the process contributes to the end goals, IL can help build consensus among various stakeholders. Clear communication of how objectives are intended to be achieved fosters greater support and cooperation among those affected by or involved in the policy.
- **Improved resource allocation:** IL helps identify the most effective and efficient use of resources. By understanding the causal relationships within a policy initiative, planners can allocate resources in a way that maximizes impact and minimizes waste, ensuring that public funds are used judiciously.
- **Addressing technical challenges and improving data availability:** By identifying specific data needs and corresponding collection methods, IL also helps address challenges related to data coverage, availability, and relevance. This preparation in the early stages of planning ensures that adequate and appropriate data are available to inform and guide the decision-making process.
- **Facilitated monitoring and evaluation:** With a clear IL, it becomes easier to monitor progress and evaluate the success of a policy initiative. The predefined indicators help in assessing whether the objectives are being met and where adjustments might be necessary. Furthermore, especially in case of data gaps, the use of a clear IL can help in defining appropriate (additional) proxy indicators.
- **Addressing timing and coordination issues:** The structured nature of IL design allows for better timing and coordination of policy initiatives. By establishing clear timelines and dependencies early in the planning process, it helps ensure that all stakeholders are aligned and that activities are executed in a timely and efficient manner.
- **Reduced complexity of multi-level governance:** *IL* can simplify the complexities of multi-level governance by providing a clear framework that delineates responsibilities and expected outcomes at each level of governance. This structured approach aids in better coordination and coherence between different

administrative levels. In the current CAP programming period, formulating a sound *IL* is also seen as a crucial element in the 'increased subsidiarity' (devolution of CAP-related decision-making powers to the MS level), by creating a clear link between EU- and national objectives on the one hand, and measures and funding on the other. Furthermore, it is considered a necessary stepping stone in the introduction of a fully performance-oriented CAP, with a results-based design of measures.

- **Addressing policy gaps and overlaps:** The structured approach of *IL* helps in identifying any overlaps or gaps within and between different policy areas. This identification aids in refining policies to cover neglected areas and in streamlining efforts where there is duplication.
- **Enhanced flexibility and adaptation:** As *IL* outlines the expected pathways and outcomes, it also prepares policymakers to adapt strategies if external conditions change or if initial assumptions prove incorrect. This adaptability is crucial in dynamic environments where external factors can influence policy effectiveness.

As indicated before, *IL* is also a legal demand for MS as of the last CAP reform. In addition to contributing to a better substantiated and more transparent policy process and more effective policy, in the specific context of CAP strategic planning, establishing a 'sound *intervention logic*' for each measure as part of an intervention strategy is also an **explicit demand of Regulation 2021/2115** (Articles 104 and 109):

Article 104 – CAP Strategic Plans

[…]

3. Based on the SWOT analysis referred to in Article 115(2) and an assessment of needs referred to in Article 108, Member State shall establish in the CAP Strategic Plans an intervention strategy as referred to in Article 109 in which quantitative targets and milestones shall be set to achieve the specific objectives set out in Article 6(1) and (2). The targets shall be set using a common set of result indicators set out in Annex I.

Article 109 – Intervention strategy

1. The intervention strategy referred to in Article 107(1), point (b), shall set out, for each specific objective set out in Article 6(1) and (2) and addressed in the CAP Strategic Plan:

(a) targets and related milestones for the relevant result indicators used by the Member State on the basis of its assessment of needs referred to in Article 108. The value of those targets shall be justified on the basis of that assessment of needs. As regards the specific objectives set out in Article 6(1), points (d), (e), and (f), targets shall be derived from the elements of explanation given in paragraph 2, point (a), of this Article;

(b) interventions, based on the types of intervention set out in Title III, which shall be designed to address the specific situation in the area concerned, following a sound intervention logic [emphasis added], supported by the ex-ante evaluation referred to in Article 139, the SWOT analysis referred to in Article 115(2) and the assessment of needs referred to in Article 108;

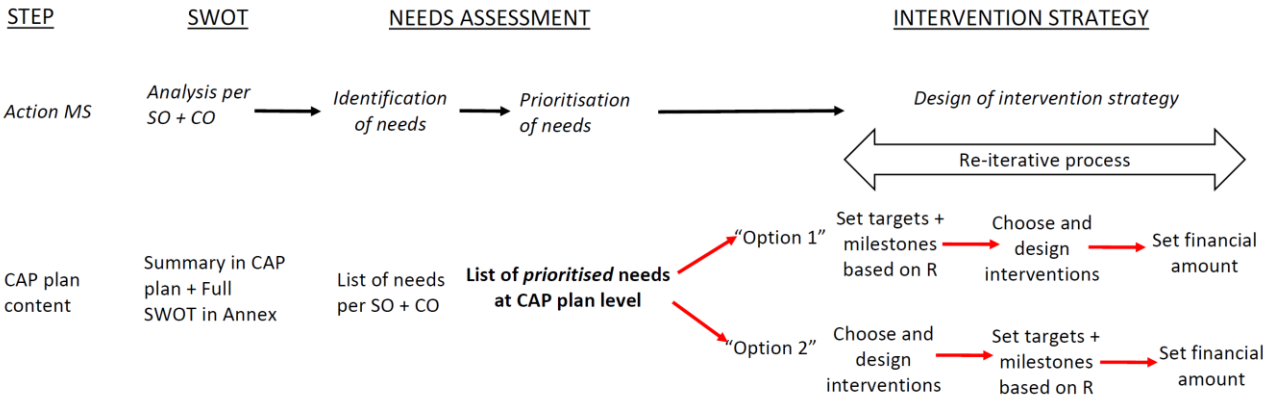
(c) elements showing how the interventions allow reaching the targets and how they are mutually coherent and compatible;

(d) elements demonstrating that the allocation of financial resources to the interventions of the CAP Strategic Plan is justified and adequate to achieve the targets set, and is consistent with the financial plan referred to in Article 112.

The intervention strategy shall demonstrate the consistency of the strategy and the complementarity of interventions across the specific objectives set out in Article 6(1) and (2) by providing […]

A sound *IL* is thus a requirement for the CAP Strategic Plan (CSP) design. Notably, the *IL* serves as a link between the SWOT, needs assessment, and interventions, and should be supported by the ex-ante evaluation, as depicted in Figure 8.

Figure 8. Links between different parts of the CAP strategic planning process. SO=Specific objective; CO=Crosscutting objective; R=Result indicator.



Source: Marion 2020

3.4.3. Involved actors and end users

In the context of CSP, the main end users of a sound *IL* include:

National, regional and local managing authorities: These government bodies (including paying agencies) are responsible for drafting, implementing, and monitoring CAP Strategic Plans (CSPs). *IL* helps them to align their actions with both national (/regional/local/LAG) priorities and EU-wide goals, ensuring that agricultural policies effectively support farmers, rural communities, and the environment.

EC and other EU institutions: As the main overseeing body, the EC uses *IL* to assess the coherence and effectiveness of national CAP plans against EU objectives, such as sustainability and innovation in agriculture. This ensures that MS's plans contribute to overarching EU policies and targets. Clear *IL* also helps other EU institutions overseeing the CAP to understand the rationale behind respective national (and lower-level) policy choices.

Researchers (universities, institutes) and policy analysts: They analyse how well CAP strategic plans are designed and executed. *IL* provides a clear framework for evaluating the impact of CAP funding on agricultural practices, rural development, and environmental sustainability.

Innovators and knowledge developers: service (e.g. ICT) providers and public and private advisory services, as well as organisations participating in research and innovation projects, can use *IL* as an indication of different national priorities, and adapt their activities accordingly.

Farmers and agricultural organisations: These stakeholders use the frameworks set by *IL* to understand how CAP funds can be accessed and for what purposes. It helps them plan their activities and investments according to available support and expected outcomes.

Environmental and rural development groups and other user communities (e.g. LAGs, consumer groups): These organisations are interested in how CAP funds are used to promote sustainable practices and rural development. *IL* provides a clear explanation of how planned interventions aim to achieve environmental and socio-economic objectives.

Auditors, evaluators and oversight bodies: bodies such as the European Court of Auditors and national audit and control bodies and paying agencies, use *IL* to evaluate the efficiency and transparency of how CAP funds are allocated and spent. It helps ensure accountability and proper use of public funds.

Taxpayers and private citizens: A sound *IL* in CAP strategic planning ensures transparency and accountability in how taxpayer funds are used, making government spending on agriculture clear and justified. It guides the efficient use of resources, optimising economic outcomes while fostering environmental sustainability and social benefits. This approach not only enhances public trust but also involves citizens in shaping policies that affect their communities, ensuring that agricultural practices are sustainable and aligned with long-term public interests.

3.4.4. Process description

In the currently prevailing approach, the design of *IL* is done for each specific objective separately, although coherence between different policy objectives must also be ensured, requiring cross-cutting knowledge across ministerial and governmental departments, and a high level of inter-departmental cooperation and communication.

Step 1: Define Objectives

Start by clearly defining the strategic objectives of the CAP interventions. These should align with broader EU agricultural policy goals such as sustainability, competitiveness, and rural development, as well as other EU and national strategic documents. Specific objectives are derived from general objectives. For example:

- Viable food production: enhance agricultural competitiveness and ensure equitable income for farmers.
- Sustainable management of natural resources: improve water management and enhance biodiversity on agricultural land.
- Balanced territorial development: develop rural infrastructure and support small-scale farms.

Furthermore, the general and specific objectives set out in the CSP regulation should be clearly linked to national objectives, especially those outlined in any strategic documents prepared at national and/or lower administrative levels.

Step 2: Conduct Needs Assessment

Carry out a thorough needs assessment to identify the specific challenges and opportunities within the agricultural sector that the CAP aims to address in the specific circumstances of the area that the CSP covers. This may involve situational analysis (review of existing data), stakeholder consultations, SWOT analysis, and prioritization. Interventions must be linked to the needs, and needs must also be linked to the specific and general objectives.

Step 3: Develop *IL*

Map out the *IL*. For this, planners must specify (AWARE 2022):

Inputs involve detailing the resources required, such as financial allocations, human resources, technology, and information. For example, a CSP might prioritise funds for modern irrigation systems and training for farmers on sustainable practices. Defining inputs is constrained by the overall budgetary allocation and should be informed by the identification and prioritization of needs, as well as more concrete analyses such as results of modelling exercises.

Activities are the actual tasks or projects that will utilise these inputs; in the case of CAP strategic planning, this includes specific **interventions**, e.g. agri-environmental schemes, knowledge transfer or implementing investments.

Outputs are the direct consequences of these activities. For a training workshop, the output would be the number of farmers trained.

Outcomes describe the effects of these outputs, as well as other factors, on the target group. They include:

- **Results,** which are immediate changes brought about by an intervention, and
- **Impacts,** which refer to the long-term effects and overall goals of the CAP strategic plan. Continuing with our example, the ultimate impact might be a measurable reduction in water usage and enhanced soil health across the region, contributing to environmental sustainability and increased agricultural productivity.

As early as possible, the outputs, results and impacts should be quantified with targets defined using the indicators provided in the (Common) Performance evaluation framework (see next step). Links between different parts of the strategic plan should be made as explicitly as possible, taking into account the necessary elements above. Therefore, sound knowledge is necessary in linking the real needs to funding and the effect of funding on achieving results, including predicting the likely uptake of measures. A possible way to build an *IL* is also to 'reverse engineer it', starting from the objectives, using a Theory of Change approach. Theory of Change describes how and why a certain activity is expected to work and describes the assumptions of how inputs will lead to desired outcomes. Section 0 (Outcomes) shows an example of *IL* for the CSPecific objective 7 on young farmers, as developed for Spain.

Step 4: Establish Indicators for Monitoring and Evaluation

Taking into account the CAP's PMEF (Performance Monitoring and Evaluation Framework)[2], develop a robust set of output, result, and impact indicators:

Output indicators aim to measure the direct actions such as the number of training sessions held or hectares of farmland improved.

Result indicators aim to assess the immediate effects, such as increases in farm productivity or improvements in water quality.

Impact indicators aim to evaluate long-term changes like enhancements in rural living standards or reductions in rural poverty.

These indicators should be SMART: Specific, Measurable, Achievable, Relevant, and Time-bound, and there should be a clear **link between measures and indicators**. Regular assessments should be conducted to track progress, and interim results should be used to adjust the strategies as necessary. As knowledge and data availability improve and develop, the indicator framework should also be revised accordingly. Furthermore, in certain cases, additional and/or proxy indicators may have to be created.

Step 5: Plan for Implementation

Develop a detailed implementation plan that includes timelines, responsible parties, and resource allocation. Ensure that all planned activities are feasible within the given constraints and contribute directly to achieving the intended outputs. Implement the planned interventions according to the established logic and regularly monitor the progress using the defined indicators. This should include ongoing stakeholder engagement as necessary, to ensure that the interventions remain relevant and effective (for more details see Step 6).

Step 6: Engage Stakeholders

Involve various stakeholders throughout the process, including farmers, agribusinesses, NGOs, and local communities. Their input is crucial for ensuring that the plans are realistic and grounded in the actual needs of the agricultural sector. This step should be conducted at different stages of the process in order to ensure a higher level of inclusiveness, reliability, and buy-in from stakeholders. It should also be done in a manner that is as transparent as possible to prevent later backlash due to objections from specific groups of stakeholders.

Step 7: Report and Revise

Use the data collected through monitoring and evaluation to make informed adjustments to the interventions. Regularly report the findings from monitoring and evaluations to all stakeholders. Use the insights gained to refine the *IL* and improve future planning cycles, ensuring that the CAP remains responsive to changing conditions and needs.

3.4.5. Resources needed

IL is a cross-cutting process and should be continuous, so it is difficult to specify a time frame. It will depend on the current level of administrative capacity, data availability and quality, and familiarity of the appropriate administrators with those data. Cooperation of staff, resources for organising workshops with experts and/or stakeholders will be necessary to implement a sound *IL*. Expertise of the engaged staff and workshop participants will be needed. For the *IL* process to be conducted properly, the evidence base upon which it relies must also be as solid as possible. To some extent, parts of the process that feed into the creation of a sound *IL* can be outsourced to external experts, but in order to be comprehensive and coherent, a good level of oversight in the appropriate departments will be necessary.

3.4.6. Outcomes

This section provides an example of *IL* for the CSPecific objective 7 (OE7) on young farmers for Spain as detailed in the Spanish CSP; the description of the *IL* contains a description and justification of the identified needs, the interventions identified to address these needs (and their appropriate output indicators), and target values for the results expected to be achieved by these interventions (Ministerio de Agricultura, Pesca y Alimentación 2023).

1. Specific Objective 7 (OE7) aims to attract and support young and new farmers and facilitate sustainable business development in rural areas.

2. SWOT Analysis: A SWOT analysis for OE7 highlighted strengths, weaknesses, opportunities, and threats across eight key areas including generational succession, farm structures, young farmers' income, CAP aids impact, land access, investments, credit access, qualifications, and depopulation. This analysis guided the strategic intervention planning.

3. Identified Needs (with priorities): The analysis identified seven key needs:

- N01: Increase ratio of young farmers (High Priority)
- N03: Facilitate access to land (Medium Priority)
- N05: Improve professional qualification (Medium Priority)
- N06: Enhance entrepreneurship and retain talent (Medium Priority)
- N04: Facilitate access to credit and improve taxation (Low Priority)
- N02: Improve farms (Specific to OE7)
- N07: Combat depopulation and promote generational succession (Cross-cutting need)

4. Interventions: The selected EAGF intervention to address the needs outlined above is Supplemental income aid for young farmers, and the EAFRD Interventions are Establishment of young farmers, Aid to investments for agricultural diversification, Establishment of new farmers, Start-up of new rural enterprises, Transfer of knowledge and advisory services, and Cooperation for the succession of farms.

5. Funding and Implementation A budget of €724,249,263 is allocated for 2023-2027 to implement these strategies. This funding supports direct income aids and investment projects, with 50% directed at young farmers' initiatives. The budget corresponds to 3% of annual CAP direct payments, distributed between EAGF (2%) and EAFRD (1%).

Table 3. Link between interventions and output indicators for OE7 under the Spanish CSP

Type of Intervention	Common output Indicator
Supplemental Income Aid for Young Farmers (CIS-YF(30))	O.6. Number of hectares benefiting from supplemental income aid for young farmers.
Investments, including irrigation infrastructure investments (INVEST(73-74))	O.24. Number of units or productive investment operations subsidized outside the farm.
Establishment of young and new farmers and start-up of new rural enterprises (INSTAL(75))	O.25. Number of young farmers receiving installation aids.
Establishment of young and new farmers and start-up of new rural enterprises (INSTAL(75))	O.26. Number of new farmers receiving installation aids (different from young farmers declared in O.25).
Establishment of young and new farmers and start-up of new rural enterprises (INSTAL(75))	O.27. Number of rural enterprises receiving aids for business creation.
Cooperation (COOP(77))	O.32. Number of other subsidized cooperation operations or units (excluding the AEI reported in O.1).
Cooperation (COOP(77))	O.30. Number of subsidized operations or units for generational succession (excluding installation aid).

Source: Ministerio de Agricultura, Pesca y Alimentación 2020

3.4.7. Integration in CSP design process

Combining *IL* with other tools can significantly enhance the effectiveness and comprehensiveness of CSPs. *IL* could be combined with the following tools (see also Sterly et al. 2024):

Multi-Criteria Analysis (MCA): *IL* can be integrated with MCA to assess various policy options against multiple criteria, such as economic efficiency, environmental sustainability, and social equity. This combination allows decision-makers to see the trade-offs and benefits of different approaches, making it easier to select policies that best meet the CAP's different goals.

SWOT Analysis: Combining *IL* with SWOT analysis is a Regulation precondition and enables policymakers to better align the CSP with the internal and external factors affecting the agricultural sector. This approach helps identify strategic opportunities and manage potential threats by adjusting the interventions to leverage strengths and mitigate weaknesses.

Cumulative voting or other prioritisation tools: These tools can be used to engage stakeholders in the process of setting priorities for CAP initiatives. By incorporating stakeholder preferences and priorities into the *IL*, CSPs can more effectively address the most pressing needs of stakeholders and ensure broader support and compliance.

GIS and spatial analysis tools: These tools can enhance the geographic specificity of *IL* by allowing planners to visualise and analyse the spatial distribution of resources, environmental assets, and socio-economic factors. This can lead to more targeted and effective policy measures that consider regional disparities and specific local conditions.

Data analytics and Big Data tools: Leveraging big data tools and advanced analytics can improve the precision of the monitoring and evaluation phases of *IL*. These tools can process large volumes of data to provide insights into the performance of CAP interventions, enabling more timely adjustments and data-driven decision-making.

Stakeholder consultation platforms: Using digital platforms for engaging stakeholders can enrich the *IL* by incorporating diverse perspectives and expertise into the planning process. These platforms facilitate broader participation and can help gather more comprehensive feedback on the potential impacts and acceptability of proposed policies.

Impact assessment models: Combining *IL* with environmental, social, or economic impact assessment models allows for a detailed examination of the potential consequences of CAP policies. This integration helps ensure that interventions do not inadvertently cause harm and that they contribute positively to sustainability goals.

Economic experiments: experiments done in controlled settings can provide valuable insights on the different modalities of measures that affect the uptake of measures, including payment levels, constraints, demands, etc.

3.4.8. Limitations or implementation challenges

There are several limitations and challenges related to the use of *IL* that must be managed:

Complexity of Agricultural Systems: Agricultural systems are inherently complex, influenced by many environmental, economic, and social factors. Capturing this complexity within the confines of an *IL* framework can be challenging. Over-simplification may lead to overlooking critical variables or interactions that could impact the success of interventions.

Data Limitations: Effective *IL* relies on accurate and comprehensive data for planning, monitoring, and evaluating interventions. However, there may be limitations in data availability, quality, or relevance, particularly in dynamic agricultural environments where conditions change rapidly. Inadequate data can lead to misinformed decisions and strategies that do not adequately address the real issues.

Stakeholder Engagement: Engaging a broad and diverse range of stakeholders is crucial for developing a well-rounded *IL*. However, achieving meaningful participation can be challenging due to differing interests, power dynamics, or logistical issues. Insufficient stakeholder input can result in a lack of buy-in or resistance to the proposed interventions.

Dynamic Policy Environment: Agricultural policies and markets are subject to frequent changes driven by economic shifts, political decisions, and environmental factors. The static nature of some *IL* models may not adequately accommodate such dynamism, requiring regular updates and flexibility in the approach to remain relevant.

Resource Constraints: Preparing and implementing an *IL* for CSP requires significant resources, including time, expertise, and financial investment. Constraints in any of these resources can limit the depth and breadth of the planning process, potentially affecting the quality and effectiveness of the strategic plan.

Alignment with EU Regulations and other legislative and policy documents: CSPs must align with broader EU regulations and directives, as well as national policies, strategies and goals. This alignment can sometimes restrict the flexibility of national or regional authorities to adapt their *IL* to local conditions and needs. Ensuring this compliance while also maintaining relevance and effectiveness at the local level can be a delicate balancing act.

Evaluation Challenges: While *IL* helps in setting up evaluation criteria, the actual process of evaluating long-term impacts can be complicated by external influences and the time lag between interventions and their outcomes. Determining direct causality between specific actions and outcomes can be difficult, especially in complex systems like agriculture.

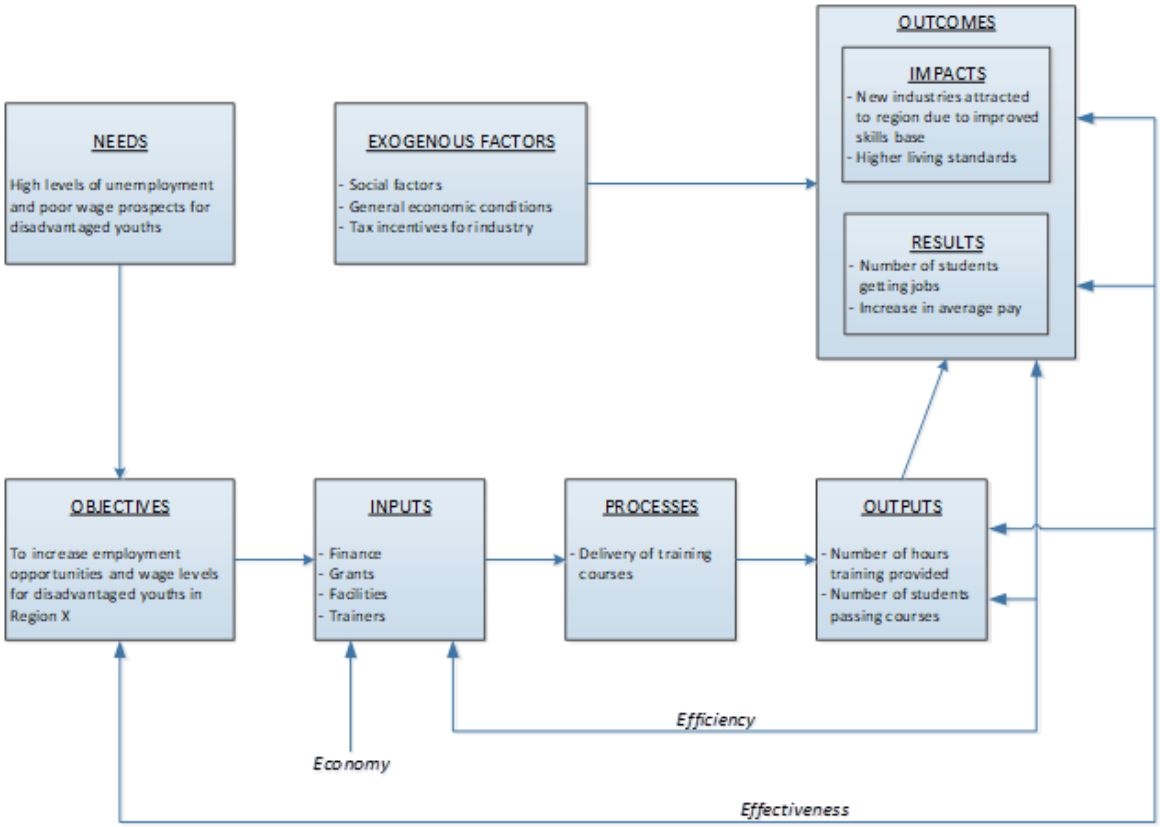
Integration with Existing Systems: Integrating *IL* into existing planning and management systems can be challenging, particularly if those systems are not designed to accommodate the structured, logical approach that *IL* requires. This can necessitate significant adjustments or redesign of legacy systems, which can be resource-intensive and resistant to change.

Addressing these limitations and challenges involves ensuring robust data collection mechanisms, fostering inclusive and effective stakeholder engagement, maintaining flexibility in the planning process to accommodate changes, and regularly updating the *IL* to reflect new insights and conditions. By carefully managing these aspects, the utility and impact of *IL* in CAP strategic planning can be maximised.

3.4.9. Implementation examples

In its guidance on *IL* (AWARE 2022), the ECA provides a depiction of an example programme logic model for a measure for disadvantaged youth (Figure 9).

Figure 9. Programme logic model for a measure for disadvantaged youth



Source: AWARE 2022

3.4.10. Further reading

- *AWARE Public* provides an overview of the Intervention /Programme logic model: https://methodology.eca.europa.eu/aware/PA/Pages/Concepts/Intervention-logic.aspx

- A further description of the approach is found in a chapter by *Baehler:* Baehler, K. (2007). Intervention Logic/ Program Logic: Toward Good Practice. In J. Wanna (Ed.), Improving Implementation: Organisational Change and Project Management (1st ed.). ANU Press. https://doi.org/10.22459/II.02.2007.14
- An example of how *IL* is used in the CAP context is provided in a paper by *Cagliero et al.*: Cagliero, R., Mazzocchi, G., Monteleone, A., Pierangeli, F., Manzoni Di Chiosca, P., & Romano, E. (2022). A participative methodology for prioritising intervention logic in the design of the Italian CAP Strategic Plan. Rivista Di Economia Agraria, 77(3), pp. 25–40. https://doi.org/10.36253/rea-13717
- *Gregory* approaches *IL* from a critical perspective: Gregory, R. (2004). Political life and *intervention logic*: relearning old lessons? International Public Management Review, 5(2).
- *Macleod* shows how logic modelling can be utilised in planning, monitoring and evaluation of policy and intervention design in the Scottish context: Macleod, C. (2016). How can logic modelling improve the planning, monitoring and evaluation of policy measures and wider interventions for multiple benefits? Final Report to Scottish Government.
- A more general investigation how policies are designed and how methods can play into this can be found in a chapter by *Peters:* Peters, B. G. (2018). Chapter 1: The logic of policy design. Edward Elgar Publishing. https://doi.org/10.4337/9781786431356.00006
- *Quinn and Madden* show how logic models work in the Irish case: Quinn, D., & Madden, C. (n.d.). Frameworks for Policy Planning and Evaluation.

3.5. Intervention-Objectives-Impact (IOI) Matrix

3.5.1. Introduction

The *Intervention-Objective-Impact (IOI) matrix* is indispensable in agricultural policy due to its ability to navigate the complex landscape of diverse objectives and stakeholders. By breaking down overarching goals into specific challenges and interventions, it provides a structured framework that fosters inclusivity and stakeholder engagement throughout the policy-making process, as highlighted by Fischer et al. (2018) and Pannell et al. (2017). This participatory approach not only enhances policy legitimacy and effectiveness but also facilitates the alignment of interventions with overarching policy objectives.

Furthermore, the *IOI matrix* supports efficient resource allocation by prioritizing cost-effective interventions, thereby optimizing policy effectiveness and ensuring the sustainability of agricultural development, as demonstrated by studies such as Barbier et al. (2020) and Liu et al. (2019). Grounded in empirical data and rigorous research, it enables evidence-based decision-making, providing policymakers with insights into the potential impacts of interventions and best practices for achieving desired outcomes under the CAP (Chartier et al. 2016; Sterly et al. 2018).

Moreover, the *IOI matrix* promotes transparency and accountability by documenting the rationale behind policy decisions and the expected outcomes of interventions, thereby enhancing public trust in the policy-making process. Its systematic approach also supports ongoing policy evaluation and adaptation, allowing policymakers to adjust strategies in response to changing circumstances and emerging challenges in agricultural policy. In summary, the *IOI matrix* offers a comprehensive, participatory, and evidence-based framework essential for navigating the complexities of agricultural policy and achieving sustainable development goals under the CAP. This structured approach not only enhances policy effectiveness but also contributes to long-term resilience in agricultural systems, ensuring they can adapt to future challenges and opportunities effectively.

3.5.2. Challenges addressed by the tool / approach

The decision to integrate the *IOI matrix* into the governance and co-design of the CSP is deeply rooted in the desire to address the fundamental needs that have arisen within the agricultural policy-making landscape.

Foremost among these needs is the imperative for a structured and systematic approach to decision-making that can effectively navigate the multifaceted challenges inherent in agricultural policy. The *IOI matrix* meets this need by providing a comprehensive framework that organizes objectives, interventions, and their impacts in a coherent manner. By breaking down overarching objectives into specific key challenges and identifying corresponding interventions, the matrix enables policymakers to systematically evaluate and prioritize policy options based on their effectiveness and cost-effectiveness in addressing these challenges.

Furthermore, the participatory spirit embedded within the *IOI matrix* directly addresses the need for stakeholder engagement in the policy-making process. Recognizing that agricultural policy decisions impact a wide range of stakeholders, from farmers to environmental advocates, the matrix facilitates collaborative decision-making by providing a platform for stakeholders to contribute their insights and expertise. Through stakeholder consultations and consensus-building exercises, the matrix fosters collective ownership and shared responsibility for policy decisions, ensuring that diverse perspectives and priorities are considered.

Transparency and accountability are also central to addressing the needs of the agricultural policy-making landscape, and the *IOI matrix* plays a crucial role in enhancing both. By elucidating the rationale behind interventions and the criteria guiding their evaluation, the matrix enhances the transparency of decision-making processes within the CSP. This transparency not only fosters trust and confidence among stakeholders but also promotes accountability by making policymakers accountable for their decisions. Additionally, by providing a clear and structured framework for evaluating policy options, the matrix enables policymakers to justify their decisions based on evidence and best practices, further enhancing accountability.

3.5.3. Involved actors and end users

The *IOI matrix*, as a participatory tool in CAP policy-making, serves diverse stakeholders:

Policymakers and Government Officials: They rely on the *IOI matrix* for evidence-based assessments of intervention effectiveness and cost-efficiency, aiding in prioritizing interventions aligned with CAP objectives.

Agricultural Stakeholders: Including farmers and industry representatives, engage to shape policies affecting livelihoods and economic interests, ensuring policies meet their specific needs.

Environmental and Conservation Organizations: Use the *IOI matrix* to advocate for sustainable practices and assess environmental impacts, influencing policies that promote biodiversity and ecosystem health.

Research Institutions and Academia: Contribute scientific expertise to evaluate interventions and bridge research-policy gaps, ensuring policies are grounded in rigorous analysis.

Civil Society and NGOs: Advocate for inclusive policies benefiting consumers and marginalized groups, engaging in policy debates to foster democratic governance and accountability.

This condensed version retains the key roles and benefits of the *IOI matrix* for each stakeholder group within the CAP framework.

3.5.4. Process description

The process of implementing the *IOI matrix* as a participatory decision-making tool for policy-making can be performed throughout two stages:

Phase 1: Policy Analysis and Scenario Development

Review Current CAP Policies, Objectives, and Challenges

Conducting a comprehensive review of current CAP policies, objectives, and challenges is the foundational step in utilizing the *IOI matrix* for policy analysis and scenario development. Policymakers begin by gathering and analysing relevant documents such as CAP legislation, policy briefs, and reports from the EC. These documents provide insights into the overarching goals of the CAP, the effectiveness of current policy measures, and the challenges faced in achieving agricultural sustainability, food security, and rural development objectives.

The review process involves a multidimensional approach, incorporating findings from academic research, expert opinions, and stakeholder consultations. Policymakers assess the alignment of existing policies with CAP objectives

and identify areas for improvement or adjustment. This evidence-based analysis ensures a thorough understanding of the policy landscape, setting the stage for informed decision-making and scenario development.

Identify Key Areas for Intervention based on Policy Analysis and Stakeholder Consultations

Building upon the policy review, policymakers engage in extensive consultations with stakeholders across the agricultural sector. Farmers, industry representatives, environmental organizations, and academic experts contribute diverse perspectives and firsthand knowledge, enriching the policy analysis process. Through interviews, focus groups, workshops, and surveys, stakeholders share insights on the effectiveness of current policies and highlight emerging challenges that require attention.

Policy analysis serves as the cornerstone for identifying key areas for intervention within the CAP framework. Policymakers analyse the strengths and weaknesses of existing policies, identifying gaps in implementation or areas where interventions could enhance outcomes. They prioritize interventions based on their potential to address critical challenges such as environmental sustainability, farm income stability, market competitiveness, and social equity.

By synthesising insights from stakeholder consultations and policy analysis, policymakers develop a nuanced understanding of the interconnected issues within the agricultural sector. This collaborative approach ensures that policy interventions are tailored to meet diverse stakeholder needs while advancing overarching CAP objectives.

Develop Alternative Policy Scenarios based on Different Combinations of Interventions

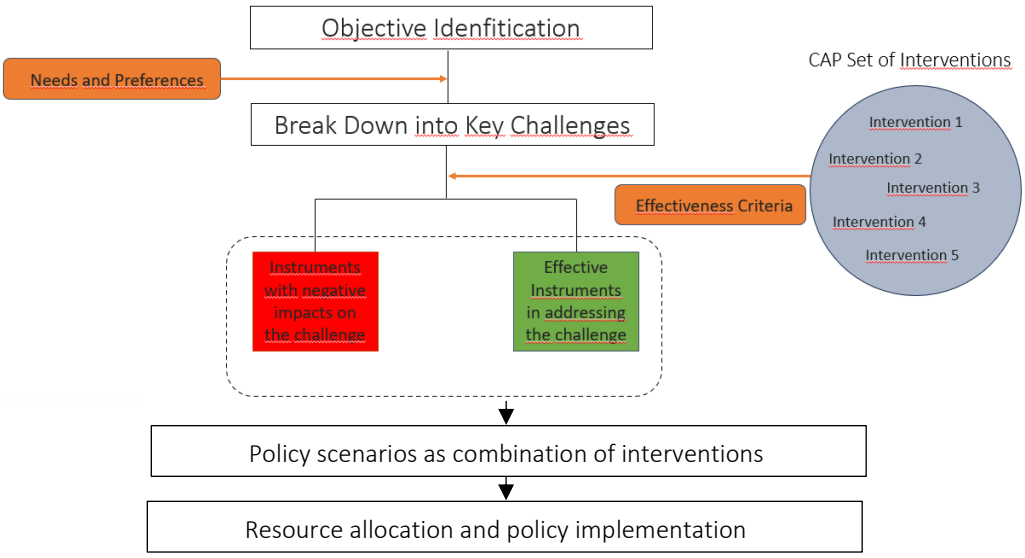
The next phase of the *IOI matrix* implementation involves developing alternative policy scenarios to explore different pathways for achieving CAP objectives. Policymakers draw upon findings from the policy analysis and stakeholder consultations to brainstorm a range of potential interventions. These interventions encompass a mix of policy instruments such as subsidies, regulations, support programs, incentives, and technological innovations aimed at addressing identified challenges.

Scenario development is an iterative process that integrates quantitative modelling, qualitative assessment, and expert judgment. Policymakers create distinct scenarios by combining various interventions and adjusting parameters such as timing, scale, and spatial distribution. Each scenario represents a unique policy approach or emphasis, offering policymakers a comprehensive view of potential outcomes and trade-offs.

Advanced scenario analysis tools and simulation techniques play a pivotal role in evaluating the impacts of each policy scenario. Policymakers utilize economic models, environmental impact assessments, and spatial analysis tools to project outcomes related to agricultural productivity, environmental quality, economic resilience, and social well-being. These simulations provide quantitative data on the expected benefits, costs, and risks associated with different intervention strategies, guiding decision-making towards optimal policy choices.

Stakeholder engagement remains central throughout the scenario development process. Policymakers collaborate closely with stakeholders to validate assumptions, refine scenarios based on feedback, and ensure alignment with diverse perspectives and preferences. This participatory approach enhances the transparency, legitimacy, and acceptance of policy decisions, fostering a collaborative governance framework within the CAP.

Figure 10. *IOI matrix* implementation process



Source: Tools4CAP 2024

Phase 2: Implementation and Evaluation Process

Develop Implementation Plans for Selected Policy Scenarios

With policy scenarios identified and evaluated, policymakers proceed to develop detailed implementation plans. These plans outline specific actions, responsibilities, and timelines for implementing selected interventions across different sectors and regions. Stakeholders from government agencies, agricultural organizations, research institutions, and civil society collaborate to allocate resources effectively and ensure coordinated implementation. Implementation plans incorporate mechanisms for monitoring progress and assessing performance indicators related to CAP objectives. Policymakers establish clear accountability frameworks and communication channels to facilitate ongoing dialogue and feedback among stakeholders. By delineating roles and responsibilities, implementation plans promote transparency and ensure that policy interventions are executed efficiently to achieve desired outcomes.

Establish Monitoring and Evaluation Systems to Track Progress and Impact

Robust monitoring and evaluation systems are essential for tracking the progress and assessing the impact of policy interventions under different scenarios. Policymakers design monitoring frameworks that capture key performance indicators, collect relevant data, and analyse trends over time. These systems provide policymakers with real-time information on the implementation status, enabling timely adjustments and informed decision-making. Monitoring and evaluation processes involve continuous data collection, analysis, and reporting to stakeholders. Policymakers collaborate with technical experts, researchers, and stakeholders to interpret findings, identify emerging trends, and address implementation challenges. By leveraging evidence-based insights, policymakers can evaluate the effectiveness of interventions in achieving CAP objectives and adapt strategies to optimize outcomes.

Review and Adjust Policy Implementation based on Monitoring Data and Stakeholder Feedback

Continuous review and adaptation are integral to the iterative policy-making process within the CAP framework. Policymakers use monitoring data, stakeholder feedback, and performance assessments to evaluate the effectiveness of implemented policies. They identify areas of success, challenges, and areas requiring improvement, fostering a culture of adaptive management and learning. Based on evaluation findings, policymakers make informed adjustments to policy implementation strategies. They refine intervention designs, reallocate resources, and introduce new measures to address emerging priorities or unexpected developments. This iterative approach enables policymakers to respond flexibly to changing circumstances while maintaining alignment with CAP objectives and stakeholder expectations.

Build Stakeholder Capacity in Using the IOI matrix and Participatory Decision-Making Processes

Capacity-building initiatives are critical for enhancing stakeholders' understanding and proficiency in utilizing the *IOI matrix* and participatory decision-making processes. Policymakers conduct training programs, workshops, and knowledge-sharing activities to empower stakeholders with technical skills, analytical tools, and policy insights. Capacity-building efforts target diverse stakeholder groups including government officials, agricultural practitioners, researchers, and community leaders. Training programs cover topics such as scenario analysis, data interpretation, and collaborative governance principles. By strengthening stakeholders' capacity, policymakers foster a culture of evidence-based decision-making and collective action within the CAP framework.

Share Knowledge, Best Practices, and Lessons Learned from *IOI matrix* Application

Knowledge-sharing initiatives play a pivotal role in promoting innovation, learning, and continuous improvement in agricultural policy development. Policymakers disseminate knowledge, best practices, and lessons learned from applying the *IOI matrix* to inform policy-making processes.

Knowledge-sharing platforms include workshops, conferences, publications, and digital resources accessible to stakeholders. Policymakers highlight successful case studies, innovative approaches, and effective strategies implemented under different policy scenarios. By facilitating cross-learning and collaboration, knowledge-sharing initiatives contribute to enhanced policy coherence, resilience, and sustainability within the CAP.

3.5.5. Resources needed

Time resources: Estimation of the time needed for completing one cycle of the *IOI matrix* development to reach to actionable policies is not easy as there are many tangible and intangible resources and factors involved. It

approximates to take between 6-15 months for the complete process to be performed. The range is rather broad due to dependency on the interaction with policymakers and/or other stakeholders which maybe time consuming but also could go very fast. In case of Netherlands for example identification of key objectives and challenges went rather fast as the SWOT analysis – as a vital step policymakers must take – was already done as an obligation. Table 4 below reflects the required timewise resources required.

Table 4. Timing of IOI matrix steps

Steps	Approximate time required
Review of current CAP policies	1 Month
Identification of key objectives and challenges	1/2 – 2 Months
Development of alternative policy scenarios	1-3 Months
Utilization of scenario analysis tools	1-3 Months
Stakeholder engagement in scenario development	1 Month
Development of implementation plans	1/2-1.5 Months
Establishment of monitoring and evaluation	1-2 Months
Review and adjustment of policy implementation	Ongoing
Capacity building for stakeholders	Ongoing
Sharing of knowledge and best practices	Ongoing

Source: Tools4CAP 2024

Infrastructure Requirements: The implementation of the *IOI matrix* requires access to adequate infrastructure to support data collection, analysis, and communication. This includes:

- Information and Communication Technology infrastructure for data management and analysis.
- Access to online platforms or databases for gathering relevant information and research.
- Communication channels for stakeholder engagement, such as meetings, workshops, and online forums.
- Collaboration tools for sharing documents, conducting virtual meetings, and facilitating remote work.

Human Resources: A skilled and diverse team of professionals is needed to develop and implement the *IOI matrix* effectively. This includes:

- Policy analysts with expertise in agricultural policy and governance.
- Data scientists and researchers proficient in data analysis and modelling techniques.
- Stakeholder engagement specialists capable of facilitating consultations and managing relationships with diverse stakeholders.
- Project managers to oversee the implementation process and ensure timely delivery of tasks.
- Capacity-building trainers to provide training and support to stakeholders on using the *IOI matrix* framework.

Capacities: The successful development and implementation of the *IOI matrix* require specific capabilities and competencies, including:

- Analytical skills for reviewing policy documents, identifying key objectives and challenges, and conducting scenario analysis.
- Technical expertise in data analysis, modelling, and scenario planning tools.
- Communication skills for engaging with stakeholders, facilitating workshops, and presenting findings effectively.
- Project management skills for coordinating tasks, managing timelines, and allocating resources efficiently.

- Capacity-building capabilities to design and deliver training programs that meet the needs of diverse stakeholders.

3.5.6. Outcomes

The main outcomes of the *IOI matrix* as a participatory decision-making method in policy-making include:

Enhanced Understanding: The *IOI matrix* facilitates a comprehensive understanding of the relationships between interventions, objectives, and impacts within the context of policy goals, such as sustainability, farm income, and environmental protection.

Coherence Improvement: The *IOI matrix* facilitates coherence improvement by systematically aligning interventions with overarching policy objectives and addressing potential conflicts or redundancies. This helps streamline policy implementation and enhances the overall coherence of agricultural policies.

Informed Decision-making: By providing a systematic framework for analysing interventions and their potential effects, the *IOI matrix* enables policymakers to make informed decisions when selecting and designing policies under the CAP.

Transparency and Accountability: The structured approach of the *IOI matrix* promotes transparency in policy design and implementation by clearly documenting the rationale behind policy decisions, including the evaluation of interventions based on effectiveness and cost-effectiveness.

Stakeholder Engagement: The participatory nature of the *IOI matrix* encourages stakeholder engagement throughout the policy development process, ensuring that diverse perspectives and interests are considered in decision-making.

Scenario Development: The *IOI matrix* facilitates the development of alternative policy scenarios, allowing policymakers to explore different combinations of interventions and assess their potential impacts on CAP objectives.

Evaluation and Comparison: Policymakers can evaluate and compare different policy scenarios based on their expected outcomes, costs, feasibility, and alignment with CAP objectives, enabling them to select the most suitable policy options.

Evidence-Based Policy: By integrating data and research into the decision-making process, the *IOI matrix* supports the development of evidence-based policies that are grounded in empirical findings and best practices.

Adaptive Management: The iterative nature of the *IOI matrix* allows for continuous monitoring and adjustment of policy interventions based on feedback and changing circumstances, ensuring that policies remain effective and responsive to evolving challenges.

These outcomes collectively contribute to the effective governance and co-design of the CSPs, helping to achieve its overarching objectives of the CAP while considering the complex interactions between agricultural interventions and their broader impacts.

3.5.7. Integration in CSP design process

Integrating the *IOI matrix* into the design and implementation process of the CSP under the CAP involves several strategic steps to enhance coherence, effectiveness, and stakeholder engagement.

Firstly, the *IOI matrix* can serve as a pivotal tool during workshops where different policy units convene to discuss and improve coherence. For instance, the coherence matrix, as *IL*lustrated in previous studies, assesses how well policy instruments align with CAP objectives across economic, environmental, social, and knowledge domains. This matrix can be used to facilitate discussions among policy units, helping them identify overlaps, gaps, and potential conflicts in policy measures. By analysing the coherence matrix collaboratively, policymakers can refine policy interventions to ensure they collectively contribute to overarching CAP objectives without unintended trade-offs.

Moreover, the participatory nature of the *IOI matrix* supports stakeholder engagement throughout the CSP process. Stakeholders, including farmers, environmentalists, researchers, and industry representatives, can contribute insights and perspectives during the development and refinement of policy scenarios. This participatory approach fosters buy-in, transparency, and legitimacy in policy decisions, enhancing their acceptance and effectiveness.

In complementarity with other tools, scenario building can synergize with modelling techniques. Scenario building allows policymakers to explore different combinations of interventions and assess their potential impacts under varying conditions. This process can be supported by quantitative models that simulate economic, environmental, and social outcomes, providing empirical data to inform decision-making. By integrating scenario building with modelling, policymakers can evaluate trade-offs, uncertainties, and risks associated with different policy pathways, thus strengthening the evidence base for strategic choices.

Overall, integrating the *IOI matrix* into the CSP design and implementation process enhances coherence across policy domains, promotes stakeholder engagement, and facilitates evidence-based decision-making. Complementary tools such as scenario building and modelling further enrich this process by providing robust analysis and foresight capabilities, ensuring that CAP policies are aligned with objectives and adaptable to dynamic agricultural and societal contexts.

3.5.8. Limitations or implementation challenges

The implementation challenges to account for in the development and adoption process of the *IOI matrix* can be listed as below:

Stakeholder Engagement: Engaging a diverse range of stakeholders with varying interests and ensuring their meaningful participation throughout the policy formulation process can be challenging. Differences in priorities and perspectives may complicate consensus-building on objectives and interventions.

Data Availability and Quality: Access to comprehensive, reliable, and up-to-date data across different agricultural sectors is crucial for conducting accurate impact assessments and informing evidence-based decision-making. However, data gaps, inconsistencies, and varying quality standards among various sources can hinder the effectiveness of the *IOI matrix*.

Policy Complexity: Agricultural policies often involve multiple objectives, intersecting sectors, and complex interactions between interventions. Understanding and addressing these interdependencies and potential trade-offs require a nuanced approach and careful consideration during the design and implementation of the *IOI matrix*.

Resource Constraints: Developing and implementing the *IOI matrix* requires adequate financial resources, skilled human capital, and time commitment. Securing sufficient funding, recruiting personnel with expertise in policy analysis and stakeholder engagement, and allocating adequate time for comprehensive policy reviews and scenario development are essential for its successful application.

Adaptability and Scalability: Agricultural policies and priorities evolve over time in response to changing environmental, economic, and societal factors. The *IOI matrix* must be flexible and adaptable to accommodate new challenges, emerging data, and shifting policy objectives. Ensuring its scalability to different geographical scales and policy contexts is also crucial for broader applicability and relevance.

Addressing these challenges requires robust planning, stakeholder collaboration, continuous monitoring, and adaptive management strategies to maximize the effectiveness and utility of the *IOI matrix* in guiding sustainable agricultural policy development under the CAP.

3.5.9. Implementation examples: Analysis of CAP Objectives, interventions, and impacts in Slovenia

The CAP in Slovenia has been evaluated in terms of its relevance, potential effects, and coherence. This procedure has been performed using Delphi method by asking participants: a) what is the relevance b) what are the potential effects of each intervention (instrument) for each specific objective c) what are the cross-effects of instruments to evaluate coherence between measures. This approach helps to understand how well the policy measures align with the intended objectives and their effectiveness. The scores were stored in a matrix format with measures in rows (Table 5) and objectives in columns and with sum of points in the last column.

Potential Effects: Potential effects refer to the anticipated impact of CAP measures. The following Table 5 illustrates the distribution of measures and their expected impacts.

Table 5. Potential effects scoring of instruments for specific objectives

Code	Agricultural policy instrument 2014-2020	General and implemented objectives of Slovenian agricultural policy																		Sum of points
		Resilient and competitive production							Sustainable management of natural resources and provision of public goods					Balanced rural development			Knowledge and Communication			
		NS	IS	Ist	RE	RA	VC	FS	CC	BC	SP	WP	AW	RE	QL	SI	KC	KT	IA	
1A.1	Cross-compliance	1	1	0	1	2	0	3	1	2	2	2	2	0	1	0	0	2	1	**21**
1A.2	Basic Payment Scheme	2	3	3	1	2	1	0	1	1	1	1	1	1	1	1	0	0	0	**20**
1A.3	Payment for farming practices that have a positive impact on the climate and the environment	1	3	3	1	2	1	0	2	2	2	2	0	1	1	1	0	0	0	**22**
1A.4	Payment for young farmers	1	2	2	1	2	1	0	0	0	0	0	0	1	1	1	0	0	0	**12**
1A.5	Production-linked support schemes	2	2	2	1	2	1	0	0	0	0	0	0	1	1	1	0	0	0	**13**
1A.6	Payment for areas with natural constraints	2	3	3	1	3	0	0	0	0	0	0	0	2	2	1	0	0	0	**17**
1A.7	Small farmers scheme	1	2	2	1	1	0	0	0	1	1	1	1	2	1	2	0	0	0	**16**
1A.8	Temporary exceptional measures on agricultural	2	2	2	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	**8**
1A.9	Education scheme	1	1	1	0	0	2	1	0	0	0	0	0	1	2	1	0	0	3	**13**
1B.1	Refund of part of the fuel excise duty	1	2	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	**6**
1B.2	Co-financing of insurance premiums	1	2	3	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0	**10**
1B.3	Contingency support, disaster recovery and compensation	1	2	2	0	2	0	0	0	0	0	0	0	1	1	1	0	0	0	**10**
2A.1	M01 Knowledge transfer and information activities	1	1	1	1	0	2	1	2	2	2	2	2	1	0	0	1	2	1	**22**
2A.2	M02.1 Consultancy services	1	1	1	1	0	2	1	2	2	2	2	2	1	0	0	1	3	1	**23**
2A.3	M03.1 Quality schemes	1	2	2	2	0	3	2	2	1	1	1	0	2	1	0	1	2	2	**25**
2A.4	M04.1 Investments in agricultural holdings	3	3	2	2	3	1	2	2	0	2	2	2	2	2	0	1	2	1	**32**
2A.5	M04.2 Investments in processing, marketing and	2	3	2	2	2	3	2	1	1	1	2	0	2	2	0	1	2	1	**29**
2A.6	M04.3 Investments in agricultural infrastructure	2	2	2	2	3	1	0	2	0	1	2	0	1	1	0	0	1	1	**21**
2A.7	M06.1 Start-up aid for young farmers	2	3	1	2	3	1	0	1	0	1	1	0	2	1	3	1	2	1	**25**
2A.8	M06.3 Start-up aid for small farms	1	2	1	1	2	0	0	0	1	1	1	0	0	0	2	0	1	0	**13**
2A.9	M06.4 Investments in non-agricultural activities	0	2	2	2	2	2	1	0	0	0	0	0	3	2	2	1	2	1	**22**
2A.10	M07.3 Support for broadband infrastructure	0	1	1	1	2	1	0	0	0	0	0	0	1	3	1	0	1	1	**13**
2A.11	M08.4 Support for the repair of damage to forests	0	2	2	1	2	0	0	3	1	2	2	0	1	0	1	0	1	1	**19**
2A.12	M08.6 Investments in forest techno. and produc.	0	2	2	2	2	2	0	1	0	0	0	0	2	1	0	1	2	1	**18**
2A.13	M09 Establishment of producer groups and	2	2	2	2	2	2	1	1	1	1	1	1	2	1	0	1	2	1	**25**
2A.14	M10 Agri-environmental-climate payments	1	3	2	1	2	1	1	3	2	3	3	0	1	2	0	1	1	1	**28**
2A.15	M11 Organic farming	1	3	2	1	2	2	2	2	2	3	3	3	2	2	0	1	1	2	**34**
2A.16	M13 Payments for areas facing natural constraints	2	3	3	1	3	0	0	0	2	2	0	0	2	2	1	0	0	0	**21**
2A.17	M14 Animal welfare	0	3	2	1	1	1	2	1	1	0	1	3	1	0	0	0	1	1	**19**
2A.18	M16 Cooperation	2	2	1	2	1	3	1	2	2	2	2	2	1	2	2	2	3	2	**34**
2A.19	M19 LEADER	2	2	1	2	1	2	1	2	2	1	1	1	2	3	3	2	2	3	**33**
2A.20	Rural network	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	3	4	**24**
2B.1	Assistance for the completion of land consolidation procedures	1	1	1	1	1	0	0	0	0	1	0	0	1	0	0	0	0	0	**7**
2B.2	Support programme for beekeepers	2	2	1	2	3	2	2	0	2	0	0	0	2	1	1	2	3	1	**26**
2B.3	Support programme in the wine sector and market measures	3	3	2	2	3	2	1	0	0	0	0	0	2	0	0	1	1	2	**22**
2B.4	Promotion of agricultural and food products	2	2	2	1	1	2	1	0	0	0	0	0	2	1	0	1	1	3	**19**
3.1	Agricultural scientific research	2	2	1	2	2	2	3	2	2	2	2	2	1	2	0	3	3	2	**35**
3.2	FADN	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	2	2	0	**10**
3.3	The tasks of a gene bank	1	1	1	1	2	1	1	0	3	0	0	1	0	0	0	2	2	2	**18**
3.4	Advisory Service	2	3	2	2	2	1	2	2	2	2	2	2	2	3	2	2	3	3	**39**
3.5	Agricultural education and infrastructure	1	1	1	2	2	0	1	1	1	1	1	1	2	1	2	2	3	2	**25**
3.6	Professional tasks in agriculture	2	2	1	2	2	0	2	1	1	1	2	1	0	0	0	2	3	2	**24**
3.7	Veterinary measures	2	1	1	1	2	1	3	0	0	0	0	3	0	0	0	1	2	1	**18**
3.8	Phytosan. measures and protection and registration of varieties	2	1	1	2	2	1	3	2	2	2	3	0	0	1	0	1	2	1	**26**
3.9	Food and feed quality measures	2	1	1	1	2	1	3	1	0	0	0	2	0	1	0	1	2	1	**19**
3.10	Support for NGOs	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	3	3	**24**
Sum of points		**64**	**90**	**74**	**60**	**80**	**50**	**45**	**42**	**41**	**42**	**44**	**34**	**55**	**50**	**33**	**37**	**66**	**53**	**960**

Legend: NS = Nutrition safety; **IS** = Income status; **ISt** = Income stability; **RE** = Resource efficiency; **RA** = Resource accessibility; **VC** = Value chains; **FS** = Food security; **CC** = Climate change; **BC** = Biodiversity conservation; **SP** = Soil Protection; **WP** = Water Protection; **AW** = Animal Welfare; **RE** = Rural Employment; **QL** = Quality of Life in Rural Areas; **SI** = Social Inclusion; **KC** = Knowledge Creation; **KT** = Knowledge Transfer; **IA** = Information and Awareness.

Criteria for assessing the potential impact of measures:

4 = the measure has potentially strong direct effects that ensure the overall achievement of the objectives; **3** = the measure has potentially direct effects that contribute significantly to

2 = the measure has potential direct effects that contribute partially and weakly to the achievement of the objectives; **1** = the measure has potential indirect but weak effects on the achievement of the objectives; **0** = the measure is not designed in a way that contributes to the achievement of the objectives.

Source: Erjavec et al. 2018 (translated from Slovenian)

Relevance: Relevance refers to the extent to which the policy measures are aligned with the objectives of CAP. A similar matrix to what Table 5 illustrates is constructed for the relevance scorings.

Coherence: Coherence measures how well different policy instruments work together towards achieving the objectives. A similar matrix to what Table 5 illustrates is constructed for the relevance scorings. Table 6**¡Error! No se encuentra el origen de la referencia.** summarizes the coherence of CAP measures:

Table 6. Coherence among interventions

Objective Group	No Effect (%)	Weak Effect (%)	Important Effect (%)
Economic	29.6	53.7	7.8

Environmental	18.3	33.1	5.2
Social	15.2	29.2	2.9
Knowledge	30.6	33.1	7.6

Source: Erjavec et al. 2018

Budget allocation: Finally, budgetary weights are assigned to different instruments through dividing the total budget for each measure by the sum of points that the measure received.

Conclusion: The CAP implementation in Slovenia reveals varying degrees of relevance, potential effects, and coherence across different objectives. Economic measures, while highly relevant, show a significant gap between their intended and actual impacts. Environmental and social measures face challenges in achieving their objectives, highlighting the need for better targeting and alignment. Knowledge measures show moderate success but require enhanced mechanisms for effective knowledge transfer.

Overall, the findings emphasize the importance of strategic planning and continuous evaluation to ensure that CAP measures effectively address the intended objectives and achieve meaningful outcomes in Slovenia.

3.5.10. Further reading

- *The European Court of Auditors* provides an analysis whether EU loan guarantees have supported smaller businesses' growth and innovation by enabling them to access finance: https://www.eca.europa.eu/en/publications/SR17_20
- The authors *Hallegatte and Przyluski* of the World Bank review of available methodologies to assess indirect economic consequences of natural disasters, illustrated with examples from the literature: World Bank Document
- *Reed* reviews different participatory approaches and provides evidence for their benefits, drawbacks and risks: Reed, M. S. (2008): Stakeholder participation for environmental management: A literature review. Biological Conservation, 141 (10), pp. 2417–2431. https://doi.org/10.1016/j.biocon.2008.07.014

3.6. Scenario building for Policy Impact Assessment (PIA)

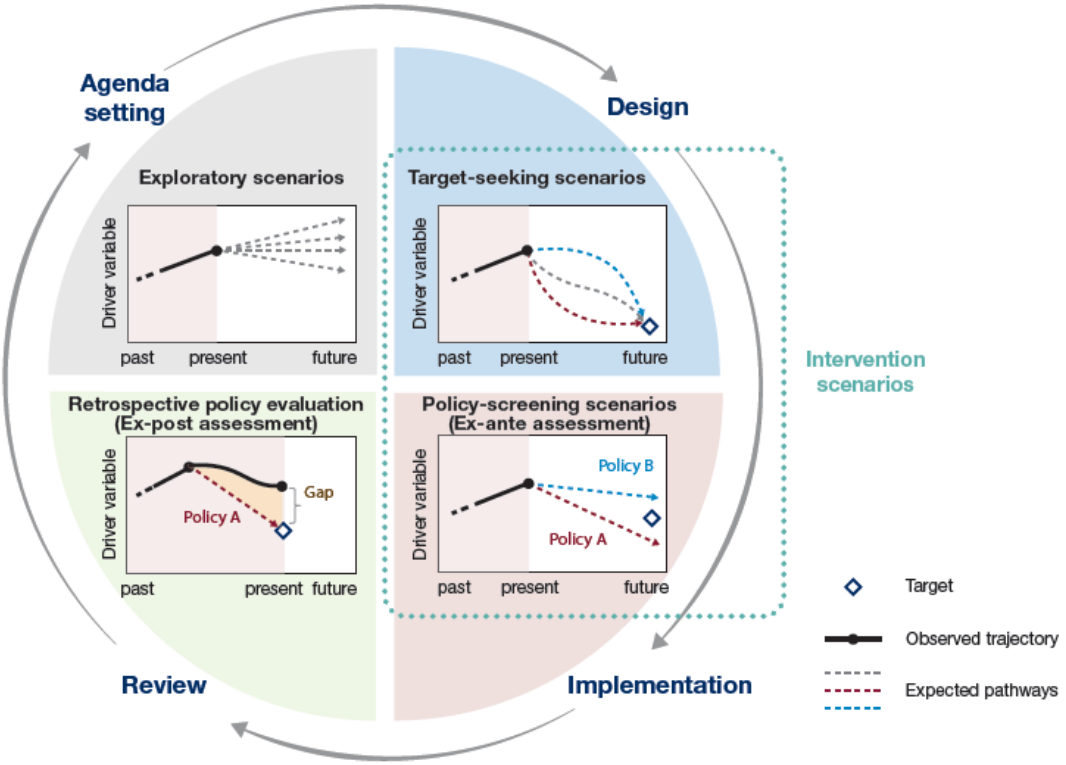
3.6.1. Introduction

Evidence-based policy design faces several challenges, including limitations in data quality and availability, the complexity of policy environments, the unpredictability of evolving social, economic, and environmental contexts, conflicting interests among diverse stakeholders, and practical barriers to policy implementation. ***Policy Impact Assessment (PIA) using scenario analysis*** can help decision-makers in CSP design at the MS level to overcome these challenges and offer a rational environment for decision-making. The purpose of this method is to present the key policy dilemmas and indicate the directions of possible economic, environmental and social changes when choosing a specific set of interventions or implementation rules.

In a more general sense, *PIA* is a systematic process of evaluating the potential effects, consequences, or impacts of a proposed policy, project, program, or intervention on various aspects of society, the economy, the environment, or other relevant dimensions. It helps policymakers understand the likely outcomes, both positive and negative, before implementing or modifying a policy. If necessary, this can allow proposed policies to be amended to address identified shortcomings. *PIA*s consider various dimensions, including economic, social, environmental, and administrative impacts. *PIA*s are mostly conducted for specific policy areas or objectives. Scenario analysis is a specific way of *PIA*.

Scenario building can take distinct roles and forms in the policy cycles which is illustrated in Figure 11. '**Policy-screening scenarios'** develop different policy options for consideration. This type of scenario development is suitable for an ex-ante *PIA* of different policy options.

Figure 11. Roles of different types of scenarios corresponding to major phases of the policy cycle



Source: Ferrier et al. 2016

The aim of scenario building for *PIA* in the CAP design process is to establish different possible future policy scenarios, creating the basis for an assessment process which explores the impacts of these specific scenarios. **Scenario building and analysis** for *PIA* can be applied at MS level, and where relevant also at regional level within a MS. Scenarios may take the form of varied combinations of interventions and budget allocations. At least two scenarios must be developed to base the analysis on – a baseline scenario, and one or more alternative scenario.

Scenario analysis involves evaluating and analysing the potential implications and consequences of the different future scenarios that are built. It encompasses an assessment of the impacts, risks, opportunities, and trade-offs associated with each scenario. Scenario assessment may involve quantitative modelling, qualitative analysis, stakeholder consultations, or expert judgment to explore the implications of each scenario on specific objectives, outcomes, or indicators of interest. The goal of scenario assessment is to provide decision-makers with insights into the potential outcomes of different scenarios and to inform strategic planning, policy development, and decision-making processes. In general, policy scenarios are developed for a MS, but the scenario analysis could be limited to a region or even smaller administrative unit.

In the EU policy-making context, impact assessment is understood as an ex-ante approach to assessing the expected impacts of a regulation or delegated acts currently compulsory at EU level. With a focus on economic, environmental and social implications, it has been a standard part of CAP decision-making at the European level since 2003. With the help of *PIA*, a debate on the necessity of changing policy directions and mechanisms is opened among EU authorities and the public at the EU level. The practice and quality of *PIA*, which is also based on the creation of scenarios and the analysis of their results, has been growing over the years and is regulated by EU legislation. So far, the preparation of a *PIA* is not mandatory when creating a CSP at the level of a MS. However, *PIA using scenario analysis* can increase the quality of strategic planning also at the level of the MS. It is a demanding approach that requires a good theoretical basis, data and a clear political direction of the desired policy changes. *PIA* for objectives addressing rural areas also relates to the Rural Proofing mechanism that has already been applied to rural policies in some MSs including Finland, Estonia or Spain (Mantino et al. 2023; Kasemets and Taavi 2024; Bryce 2024).

3.6.2. Challenges addressed by the tool / approach

Several benefits of conducting a *PIA using scenario building* can be identified:

- **Evidence based CAP Decision-Making**: The *PIA* helps policymakers at the national level make evidence-based choices among a range of available alternatives (mostly determined at the EU level and then adjusted to specific national conditions).
- **Transparency in decision-making**: the CAP *PIA* increases transparency in the context of national circumstances and the stakeholder policy arena by revealing potential trade-offs between a range of objectives. It is an integral process facilitating the re-direction of targets and mechanism (for instance transformation of agro-food system based on societal needs).
- **Stakeholder Engagement**: The CAP *PIA* at national level can facilitate the involvement of stakeholders in the policy assessment process, also creating a formal process for stakeholder input to the decision- making process.
- **Accountability:** Holds policymakers accountable for policy outcomes. There is clear evidence of how the policy decision was arrived at.

Scenario analysis is a part of CAP *PIA* and explores different plausible CAP future scenarios to understand their implications and to support the *PIA*. Several purposes and benefits of CAP Scenario analysis can be named:

- **Risk Management:** CAP Scenario analysis can show vulnerabilities and opportunities associated with particular policy reform decisions (new interventions, cancellation of the pre-existing intervention, new impacts, capacity to reach desired targets).
- **Better Strategic Planning:** CAP Scenario analysis helps MSs adapt to changing conditions by recognising, prioritising and determining new objectives and interventions. Also changing future economic, environmental and social circumstances may require a different policy environment.
- **Better Policy Design:** CAP Scenario analysis can deliver more robust policies, by exploring the consequence of policies and refining the policies to address concerns that are identified,

In the context of CAP Strategy Design, policy scenario building is an integral part of the Impact Assessment of different policy options, and supports the prioritisation of objectives and interventions as well as decision-making. It is applied at an early stage of CSP design once EU COM proposals are published. Scenario analysis helps policymakers navigate uncertainty by exploring a range of possible futures and their potential outcomes, which is crucial in dynamic contexts. This method also improves the utilisation of available data by integrating and synthesizing information from diverse sources, which helps overcome gaps or biases. Furthermore, scenario analysis allows for the examination of complex systems and the interactions between different variables, providing a deeper understanding that is vital for crafting effective policies.

Involving a wide array of stakeholders in scenario building also helps in aligning various interests and priorities, fostering a more collaborative and inclusive policy-making process. Additionally, this approach promotes strategic planning and flexibility, enabling policymakers to devise solutions that are robust and adaptable to changing circumstances. Thus, scenario building, and scenario analysis not only enhance the resilience and inclusiveness of policy frameworks, but also support more strategic and forward-thinking decision-making in policy design. However, engagement with stakeholders must be managed effectively by policy makers so that it does not simply become a lobbying opportunity. The inclusion of stakeholders in scenario design may prompt some stakeholders to try to exert an element of control over the final policy decision by influencing the scenario design process to prevent certain policy options being included in the scenario analysis. Policy makers need to be aware of this risk and act to ensure that they retain control of the range of scenarios to be explored.

3.6.3. Involved actors and end users

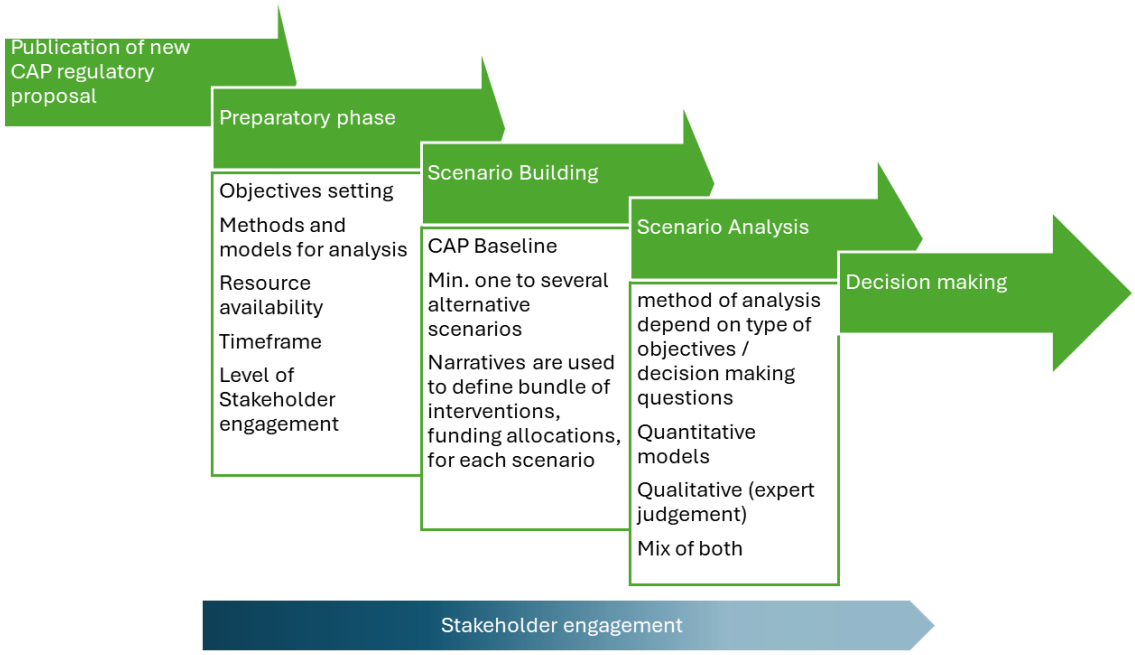
Scenarios for *PIA* are created and analysed in a triangle of representatives of science, government and interest groups:

- Policy decision makers, which can include various government ministries (agriculture, environment, finance for example) generally commission *PIA* scenario analysis
- Research organisations (or consultancies with expertise in policy analysis, scenario building or modelling) are mainly commissioned to conduct *PIA using scenario building*.
- Various stakeholder groups – depending on the scope of the commissioned scenario analysis based *PIA* – e.g., representing farmers, the food industry, rural dwellers, environmental organisations, social justice organisations, politicians (including those in both government and opposition parties) at national and EU level – can be involved in the scenario building and scenario analysis based *PIA*.

3.6.4. Process description

The scenario analysis based *PIA* can be broken down into a preparatory phase, the scenario building phase, and the scenario analysis phase. Stakeholder engagement can take please at different steps in the process.

Figure 12. Phases and key considerations in CAP *Scenario building for PIA*



Source: Tools4CAP 2024's illustration

Preparatory phase

Some preliminary considerations should be considered when deciding and designing *PIA using scenario building*. Policy makers need to define the specific objectives and scope of the *PIA*, the suitable methods for assessment for the defined objectives, available capacities and expertise within and outside the MA, the desired and appropriate level of stakeholder engagement, the timeframe and last, but not least, the available resources.

Setting the objectives and the scope of the exercise. Policy makers need to define clearly which question(s) should be answered through the scenario analysis. This could involve defining the perimeters of the potential scenarios. *PIA* can for instances focus on specific policy objectives or specific aspects such as sustainability of agricultural holdings (see Moulogianni et al. 2021), farmland biodiversity (see Overmans et al. 2013), spatial or territorial impacts (Torrieri and Njikamp 2009). It is important that the *PIA* remains within the framework set by the EC's proposed amendment to the CAP. The fundamental requirement is to transfer the European framework to the MS level.

Coderoni et al. (2021) have identified key policy objectives and related policy questions for ex-ante impact assessment of European agricultural and rural policies through scenario assessment. Examples of objectives are 'Preserve biodiversity, ecosystem services and landscapes', 'Environmental care (air, soil, water)', 'Climate-change action', 'Increase competitiveness', 'Rebalance the power in the food chain', or 'Vibrant rural areas'. Some of the

proposed scenarios to deliver on the objectives suggest the assessment of specific interventions such as 'mandatory reduction of input use' and 'mandatory share of utilised agricultural area (UAA) cultivated with organic farming methods', 'adoption of collective payments to farmers', 'increased use if subsidies for innovation adoption', 'removal of first pillar direct payments', 'further decoupling of first pillar'. These provide some examples of how *PIA using scenario building* could be framed. This demonstrates that the developed scenarios may be focussed on specific objectives.

There is a requirement to check which **methods and models are available** for policy analysis at the national level. Once there is a good understanding of the methods and models available, scenario design may need to be modified to make it tractable from a quantitative modelling perspective, Scenario design and model selection may well be an iterative process, given that scenario design needs to align with modelling capacity. There is a requirement to determine the capacities of the contracting research organisation that will conduct the analysis. A scenario that can't be analysed with existing tools, or which could only be analysed if a new tool were built, might be of little use if the results cannot be delivered by the time the policy decision needs to be made.

Level of desired and feasible stakeholder engagement: Here again time can be important. While a comprehensive stakeholder engagement process is desirable, the more extensive this stakeholder engagement process becomes, the longer it may take to develop the scenarios. In turn this may eat into the time available for the subsequent scenario analysis.

Resources availability (see also section on 'resources needed'): resource considerations need to reflect existing capacity, the challenges involved in developing new capacity if required, the costs associated, the time scale and the risks of non-delivery, which should consider the previous track record of those conducting the analysis. There is a particular concern if analytical resources are limited, as they typically are in the smaller MSs. Ideally analytical resources should not be spent on un-realistic scenarios with little or no political chance of being delivered. Instead, the focus should be on realistic, but adjusted CAP scenarios with a reasonable chance of gaining political acceptance at the national lever. Larger MSs might have the luxury of exploring a wider range of scenarios, including some extreme scenarios with a low probability of political acceptance.

Timescale and alinement with overall CSP process: Time can be a limiting factor in the choice of scenarios to be evaluated and in the choice of analytical approach to be used. A good piece of scenario work undertaken within the required time frame is useful. However, an excellent piece of scenario analysis will be of no use if it fails to be completed in advance of the date when the policy decision must be made.

Scenario Building

Scenarios are built based on the CAP regulations and other EC documents that guide CAP design and implementation. Scenarios may also reflect the aspiration of international agreements (for example the Paris Climate Agreement or the UN Sustainable Development Goals). Equally, the scenarios may reflect national policy objectives which align with the overall EU CAP framework.

For scenarios to be useful they must contain assumptions about policy that will lead to some diversity in potential scenario outcomes. There are generally at least two, but it could also be more outputs from the scenario design process. The CAP baseline is a representation of the future based on current policies and is used as a benchmark to measure the impact of changes in policy that are examined in subsequent steps (scenarios). Also, it is necessary to understand what sort of scenarios are politically feasible before the scenarios are explored. If scenarios are too closely aligned, the difference between the scenario outcomes may be so small as to render the exercise irrelevant, for decision-making purposes.

For example, a baseline might indicate how agricultural production, prices and farm income are expected to develop under current policies. The second output is one or more descriptive scenarios, including policy priorities/objectives and contextual variables, and types of interventions that would be suitable under the given priorities. Multiple scenarios may be necessary if there are a range of alternative policies that could be adopted. Like the baseline, the scenarios might indicate how agricultural production, prices and farm income, might develop under the policy alternatives.

Scenario building often begins by agreeing certain narratives which, depending on the context, can be rather stylized or reflect existing 'real world priorities' of the policy makers. Based on the narrative, the next step is to compose a set of policy measures which fit within this narrative. When agreement on this is reached, often because of an iterative discussion process with stakeholders, policy interventions are then bundled into a comprehensive package

and translated into actionable information for simulation using quantitative modelling tools or qualitative approaches such as expert evaluation or a mix of both approaches.

The development of scenarios primarily involves national (regional) level policy makers, since they are ultimately the end user for decision-making purposes but may also include other actors (see WG#2 for guidance on stakeholder engagement). The scenarios should be built by a group of people that bring in different knowledge and perspectives relevant to understanding the policy system and the intended objectives.

Scenario Analysis for *PIA*

Analysing the scenario is the key for *PIA*. For some objectives that are of interest (e.g., economic impact on farm household, land use changes) quantitative models can be used. The Tools4CAP deliverable D2.1 on 'Assessment of the potential of existing and innovative modelling tools' (Gonzalez Martinez et al. 2024) provides an overview of suitable models. For other objectives and depending on the scope of the *PIA*, the analysis can be implemented using qualitative models or a mix of both quantitative and qualitative analysis. The method of differences can then be used to compare the baseline outcome and scenario outcome(s) of quantitative analysis to isolate the impact of the scenario. Both the baseline and the scenarios might also contain information on total budget, budget shares for different objectives or interventions, and subsidy levels.

Organization of work for *PIA* with scenarios. To conduct a *PIA*, it is necessary to select one or more suitable research organizations capable of conducting the task. Organizations that have longer experience in participating in the policy process, have access to data and quantitative tools, and are skilled in cooperating with stakeholders are suitable. Multi-disciplinarity of knowledge is also important for modern CAP. In addition to agricultural economics, these are also various areas within environmental sciences, nutrition, sociology.

Assessing impacts using Quantitative Modelling: Quantitative models are frequently used for impact assessment. Depending on how they are structured and the level of detail they contain, output from these models can be used by researchers to inform policy makers about the complex interactions between production, consumption, trade, output prices and incomes. More recently these models have increasingly explored the associated environmental consequences. In the future, also other societal dimension can be included (food items, territorial balance, social issues). In the context of *PIA* these models can explore for instance the impact of subsidies, tariffs or regulations on agricultural production, prices and incomes. Such models can also be used to examine the impact on trade flows. Income and welfare effects of policy choices can also be examined, as can environmental consequences such as the impact on soil, water, air and greenhouse gases. Stochastic analysis can be used to assess the implications of production and market risk. Different types of models can be used for CAP *PIA*: econometric models, Computable General Equilibrium Models, Partial Equilibrium Models, Integrated Assessment Models, Agent Based Models, Risk Assessment Models. Quantitative assessment is conducted by research organizations that have competence and experience in modelling. The connection with groups of researchers in countries with developed quantitative CAP decision-making support and with the JRC is important.

Data Collection Stage and adjustment of quantitative tools: At this point, the policy makers will gather data on the policy's potential effects. This includes quantitative data (e.g., economic indicators) and qualitative information (e.g., stakeholder opinions). This data may be disseminated to stakeholders to aid them in providing their input to the process. Data from official statistics, data on agricultural accounting (FADN), data from paying agencies, data from environmental and social monitoring can serve as important sources of data. It should be noted that the needs of CAP *PIA* generally require the mathematical tools to be adapted accordingly. New CAP questions may require the tools to be updated. It is also necessary to adapt the tools to reflect the availability of new resources.

Analysis State: At this point, the new CAP scenarios and instruments will be evaluated in terms of their impacts across various dimensions. This analysis will include consideration of the short-term and long-term effects of the policy choices. The analysis will be disseminated to stakeholders to aid them in providing their input to the process.

Preparation for decision-making (**Mitigation Strategies, Reporting)**: At this point, measures to enhance positive impacts and mitigate negative impacts will be proposed. These will be discussed with stakeholders to obtain their feedback. The findings of the impact assessment will be presented in a clear and accessible manner for decision-makers. In the process of decision-making trade-offs are evaluated in order to make informed choices. By being able to quantify trade-offs, policy makers can weigh up the impact which policy choices have on potentially competing objectives, such as the impact of a policy on the environment relative to its impact on farm income, or the impact of policy on farmers versus wider the impact on wider society.

Stakeholder engagement (optional)

Taking stakeholder perspectives into account can enhance the credibility and reliability of the CAP impact analysis. It can help to pinpoint unforeseen areas where impacts could occur, or it can help to identify possible trade-offs that might otherwise be overlooked. Stakeholder engagement can also increase the transparency of the impact assessment process, making it more public and accessible, avoiding accusations that the decision-making process is clandestine. Stakeholder engagement can help to build support for a particular policy option, since stakeholders much themselves engage with their client base regarding the policy options. Overall, stakeholder engagement, when undertaken in the correct way, can enhance the decision-making process. Stakeholder groups might accept the analysis if the conclusions align with their perspective on policy change. But they could also reject the analysis entirely if it conflicts with their organisational position on policy change.

3.6.5. Resources needed

Due to the complexity of possible implementations of *PIA* based on scenario analysis, it is only possible to give general guidance. Resource needs depend on the scope of the analysis, the methods used for the scenario analysis, the number of scenarios to be analysed and the level of stakeholder engagement in the overall process. Furthermore, the level of expertise in developing policy scenarios and stakeholder engagement of the commissioning institution (i.e., usually the ministry) has to be considered. Here it might be important to emphasise the importance of developing analytical capacity. This can sometimes be developed through participation in international modelling networks rather than trying to develop something entirely from scratch using only national expertise. EU and national level funding can be important in developing and maintaining such analytical capacity. It is important also to appreciate that the *PIA* and scenario analysis are produced by the researchers using the models. Some funders think that the models do all the analytical work to provide the results and fail to appreciate that skilled researchers are required to make these models useful to obtain the results. Results need to be interrogated by the modellers to see whether they are plausible.

In terms of **timing,** the preparatory phase takes a few months depending on the complexity of the set of objectives in the exercise and the related coordination activities in the commissioning organisation. There is also a need to consider the time required to identify and subcontract suitable partners for activities such as facilitation the scenario development and the conduct of the scenario analysis. These two activities could be commissioned to separate organisations, or only to one.

The scenario building itself should also take a couple of months – again this will depend on the total number of scenarios to be built, the scope of the scenarios, and the level of stakeholder engagement in the process.

The resources and time needed for the scenario analysis (i.e. the *PIA*) depends strongly on the type of assessment to be conducted. WP2 provides further insights into resource needs for quantitative modelling. Qualitative analysis again needs some effort to identify suitable experts, to prepare and coordinate the expert judgement (e.g., using Delphi method) and the processing of the results into a *PIA*. The resources required also depend on how detailed each scenario, is as well as the number of scenarios to be investigated. Simple scenarios require less time and resources than more complicated ones. Complex scenarios may be more easily analysed by models that already have the required complexity. The worst case would be to try to quickly analyse a complex scenario, where the existing resources are poor.

3.6.6. Outcomes

The outcomes of scenario building are at least a baseline and an alternative policy scenario:

- Baseline: representation of the future mix of interventions based on current policies taking into consideration the new CAP regulatory proposal (types and mix of interventions, financial allocations)
- Alternative Policy Scenario: substantially different mix of policy interventions (in accordance with new CAP regulations) that reflect a specific objective

Additional scenarios can be build depending on the defined scope, available alternatives of interventions and not last the availability of resources for scenario building and analysis. The following examples illustrate holistic and partial types of scenarios for CAP:

At the European level SCENAR 2030 developed a baseline and three alternative policy scenarios (M'Barek et al. 2017):

- 'Baseline' is based on the latest available reference at the time of the study, i.e. the 2015 EU Agricultural Outlook, with a perspective up to 2025. The baseline was extended up to 2030.
- 'Income and Environment' is based on a more restrictive level of farmer compliance with agri-environmental objectives needed for direct payment eligibility, while keeping the EU CAP budget at its current nominal level.
- 'Liberalisation and Productivity' includes a strong reduction in subsidies (removal of Pillar 1 direct payments, with a shift to productivity-increasing measures and further trade liberalisation.
- 'No CAP' is a variant of the Liberalisation and Productivity scenario, but it also eliminates Pillar 2 payments, and is basically intended to represent a removal of agricultural policy.

A regional application of scenarios to assess policy effects on multifunctionality is described by Varela-Ortega and Blanco-Gutiérrez (2006) for two Spanish regions.

Table 7. Overview of Scenarios, policy instruments, policy objectives and effects developed for the analysis of multifunctionality effects

Scenario	Policy objectives	Policy instruments	Effects
Agenda 2000	Soil conservation Reduction of nitrate pollution Biodiversity	Buffer strips Crop diversity	Land use Cropping pattern Farm income (social effects, private sector) Environment Cost-effectiveness (public sector)
Partial Decoupling	Reduction of nitrate pollution	Tax on nitrate fertilizers	
	Conservation of water resources	Water quota Water prices	
Full decoupling	Soil conservation Reduction of nitrate pollution Biodiversity	Buffer strips Crop diversity	
	Reduction of nitrate pollution	Tax on nitrate fertilizers	
Support price reduction and full decoupling	Soil conservation Reduction of nitrate pollution Biodiversity	Buffer strips Crop diversity	
	Water resources conservation	Water quota Water prices	

Source: Varela-Ortega and Blanco-Gutiérrez 2006

The RURAL-ECMOD project developed a baseline and seven scenarios for an ex-ante assessment of rural policy particularly focusing on fund distribution between the two pillars and for specific measures (interventions) (Psaltopoulos et al. 2012).

Group 1: Changes in the distribution of funds within Pillar 2

- Scenario 1 – 'Agricultural' RDP: All RDP spending focused on Axes 1 (competitiveness) and 2 (environmental measures).
- Scenario 2 – 'Diversification' RDP: All RDP spending focused on Axis 3 (economic diversification and quality of life).

Group 2: Decrease in Pillar 1 funds compensated or not by an increase of funds in Pillar 2

- Scenario 3 – 30% reduction in nominal Pillar 1 support.
- Scenario 4 – Rebalancing Scenario: EU-wide flat-rate Single Farm Payment (SFP) introduced, nominal non-SFP Pillar 1 funds (e.g. Article 68) decrease by 15%, nominal Pillar 2 funds increase by 45%.

Group 3: Distribution of funds between Axis 3 measures within Pillar 2

- Scenario 5 – Farm Household Diversification: All Axis 3 funds switched to Measure 311 (Diversification into non-agricultural activities) targeting agricultural households.
- Scenario 6 – Non-farm Diversification: All Axis 3 funds switched to Measures 312 (Support for business creation and development) and 313 (Encouragement of tourism activities), both targeting the non-farm rural households.
- Scenario 7 – Rural Public Infrastructure: All Axis 3 funds switched to Measures 321 (Basic services for the economy and rural population), 322 (Village renewal and development) and 323 (Conservation and upgrading of the rural heritage), all of which target rural public infrastructure.

These scenarios were then used to model impacts in six European regions (NUTS3).

The described scenarios can then be used for a comprehensive or partial *PIA*.

3.6.7. Integration in CSP design process

Scenario building is an important approach for ex-ante impact assessment of policies and programmes. The *PIA* is a crucial step in deciding on the best policy option. *Intervention logic* (see section 3.4) and *IOI matrix* (see section 3.3) are two other approaches supporting impact assessment. They can be applied complementarily serving different purposes and supposedly are less resource intensive.

Scenario building should encompass a minimum level of stakeholder engagement, depending on the scope of the specific application and the resource availability. The guidelines on *Process communication and stakeholder engagement* (see section 3.2) complement this.

Once the scenario building and *PIA* have been finalised, *Prioritisation and decision-making* tools (see section 3.3) could be useful to come to a decision.

Methodologically there are some similarities with *participatory vision building* (see section 3.1) as both focus on developing a narrative for possible futures. However, *PIA* based scenario building strongly focusses on future CAP policy paradigms for an upcoming funding period, whereas vision building focusses on general narratives of desired futures of agriculture and rural areas with a mid- to long-term time horizon. Thus, vision building falls into the category of 'exploratory scenarios' provided in Figure 11. The latter can then be used in needs assessment and prioritisation. Also vision building might be more focused on identifying what a future vision ought to look like and then exploring the barriers to be overcome and the enabling factors that would be required to deliver it. In that sense vision building begins by thinking about where you would like to get to as an end outcome, whereas scenario analysis begins by thinking about where you are at present, what the future is likely to look like given current policies and how changes to policy might alter that future.

3.6.8. Limitations or implementation challenges

Scenario building for *PIA* is an ambitious approach but has the potential to strengthen evidence-based policy-making. The main points hampering the feasibility of scenario building for *PIA* are limitations in analytical capacity, the human resource and institutional capacity.

The time constraints in the CSP design process can impede the application of approaches such as scenario building and modelling. The CSP design process is particularly challenging as it introduces a new approach that must strictly adhere to a prescribed set of steps and requires extensive stakeholder involvement.

The broadness and complexity of CAP objectives create additional challenges for this approach. A full CAP policy scenario impact assessment must holistically cover agriculture and rural development objectives. These scenarios cannot be assessed using a single method, necessitating the combination of different assessment approaches. This must be carefully considered when discussing the results. Therefore, the scenarios could focus on specific objectives, such as climate change, biodiversity, or rural vitality. Integrating environmental, social, and economic impact assessments into a comprehensive 'sustainability assessment' can promote a more holistic approach. However, careful consideration is needed regarding which elements receive the most emphasis. Integration involves more than new legal requirements and guidance; it also encompasses data availability, the number of indicators used, terminology and reference frames, expertise development, and intersectoral cooperation. The level of integration depends on achieving minimum standards or thresholds and determining acceptable trade-offs.

Challenges are also related to stakeholder engagement A limitation in Ireland's CSP design process was that some stakeholder participation depended on individuals who, despite having general expertise, lacked the specific expertise needed to challenge the information provided by experts. Additionally, some representatives felt they did not have sufficient time to process, evaluate, and respond to all the information presented during the process. A significant challenge in France was establishing a democratic debate within civil society and achieving consensus among stakeholders on the CSP. This was evident in the national cross-sectional dialogue with stakeholders. The ex-ante evaluation highlighted the difficulty in adapting interventions to fixed needs and priorities. Additionally, designing and calibrating farm income simulations under various aid distribution scenarios to align with fixed objectives and priorities proved challenging. The platform ImPACTons! revealed difficulties in analyzing the expectations and needs of civil society regarding the CAP. Coordinating the integration of implementing bodies' needs into the CSP design process, ensuring smooth communication and expression of respective needs, also posed significant challenges.

Concluding it needs to be mentioned that a long-term perspective in the policy-making process is a critical limitation in scenario building for *PIA*. If scenarios are constructed only for a single funding period, policy choices may change every seven years. Such radical policy changes could negatively impact beneficiaries who require a stable, long-term planning horizon to operate effectively. Historical trends in the Common Agricultural Policy (CAP) indicate a tendency toward gradual policy evolution with a reluctance to revert to previous policies. However, adopting a long-term perspective is challenging, as future policies are influenced by EU and global political considerations that are difficult to anticipate with high accuracy over extended time horizons.

3.6.9. Implementation example: Scenario building for CAP 2023-2027 in the Netherlands

Introduction and background

As part of the preparation for the Dutch CSP, a number of scenarios were developed to stimulate the thinking on different policy implementation options, reflecting potential different political preferences. An instrument-objective-impact exercise, which was already available, suggested a series of combinations of goals with efficient (cost-effective) interventions, which could be used to fulfil the tasks from legislation and regulations, the Climate Agreement and some key aims of government's policy. The main challenges turned out to be in the field of sustainability.

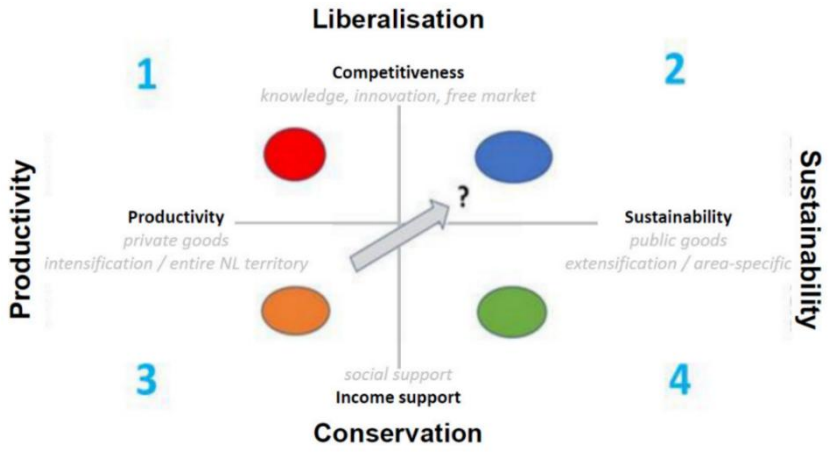
It has been observed that there was social pressure to green the CAP for climate, environment and biodiversity, but that this would occur at the expense of productivity (in a classical economic sense). An additional factor that was considered was that the 'market' for rewarding sustainability is not well developed, neither on the demand side nor on the supply side. This is the case not only in the Netherlands, but was observed to also be an issue across Europe and globally. As such, this reinforces the pressure to increase productivity, especially in an open economy like the Dutch one. The identified tension between sustainability and productivity was therefore chosen as the first dimension of the theoretical scenario-quadrant.

There was also a tension observed between competitiveness and social policy in relation to income support. A certain level of income support could help cushion shocks, preventing farmers from falling below the minimum social income, and thus increase the resilience of individual farms in the short term (more robustness). However, such support could also create dependency and inhibit innovation, the driver of sustainable competitiveness. This would undermine the longer-term transformative capacity of firms and the sector.

Commitment of the CAP to competitiveness and innovation was seen by the policy maker as essential for the future of the agricultural sector, although it was realized that this may come at the expense of individual farmers who cannot keep up. Conversely, commitment to income support for all farmers would come at the expense of competitiveness in the longer term, because innovation is then less urgent and farms that are not viable are temporarily kept afloat at the expense farms with a better capacity to compete. This tension between sector and farm modernisation (liberalization, market forces, innovation) versus CAP income support as a form of social support was identified as the second dimension of the theoretical scenario-quadrant.

This second dimension is also linked to the discussion and vision of the (future) earning model, including the role of earning power. Both dimensions together led to the development of the matrix below, in which a movement towards more sustainability and more innovation and competitiveness is desirable for agriculture.

Figure 13. Two-dimensional model with four theoretical scenario quadrants, based on the tension between productivity vis-à-vis sustainability (horizontal axis) and liberalization vis-à-vis conservation (vertical axis)

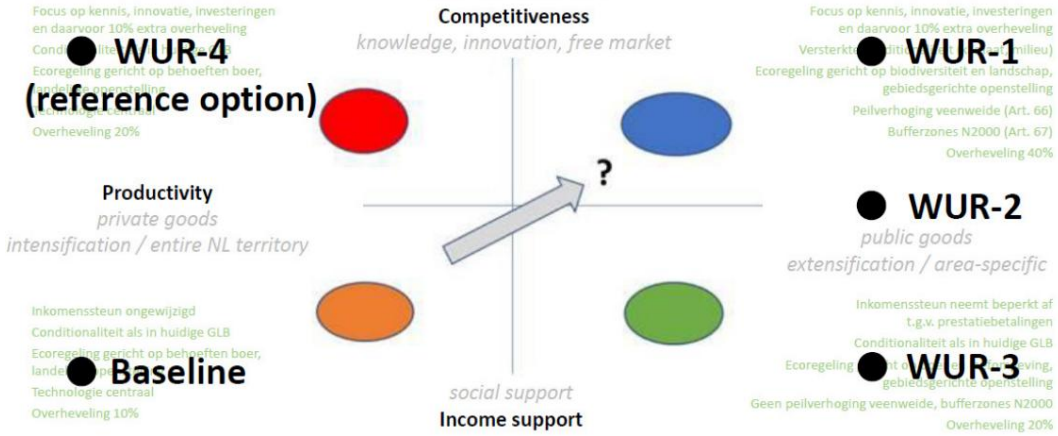


Source: Baayen et al. 2021

Scenarios for sustainability and innovation

Policy variants were projected on the axis cross for enhanced sustainability, focusing on sustainable competitiveness (WUR-1), social support for existing farms (WUR-3) and halfway (WUR-2). As a baseline, an interpretation of the new CAP was chosen that is as similar as possible to the current interpretation of the CAP, with the new rules and budgets in line with the 2020 multi-financial framework (MFF). In addition, the 2020 CAP under the old rules was included for comparison (baseline choice). For a pure comparison (comparing 'with' and 'without' properly), variants WUR-1, WUR-2 and WUR-3 should be compared with the new baseline. The new CAP comes with a lower budget and different rules but the 'current CAP' as a reference case did not reflect this – denoting the 2020 value. In addition, variant WUR-4 was defined as a variant that would focus on productivity and competitiveness rather than on sustainability. This variant is not consistent with the outcomes of the study but gives insight into the income changes if the new CAP focuses only on innovation and not on sustainability.

Figure 14. Position of policy variants WUR-1, WUR-2, WUR-3 and WUR-4 in the two-dimensional scenario-framework vis-à-vis the baseline.



Source: Baayen et al. 2021

Variant WUR-1 assumed a 40% transfer from the first to the second pillar, i.e., 30% more than was the case in the baseline in the Netherlands. Of this, 10% has been earmarked for extra efforts on knowledge and innovation for sustainability and 20% for area-specific interventions, such as level increases in peat meadows and a buffer zone around Natura 2000 areas. Changes in those areas are regulated nationally in this variant and are therefore not considered to be voluntary. This variant was aimed to show the maximum that can be achieved by focusing on knowledge and innovation as well as sustainability. The transfer was also the maximum percentage allowed in the new CAP.

Variant WUR-2 assumed 30% transfer, i.e., 20% more than the baseline. The additional transfer was allocated entirely for area-based interventions, as in variant WUR-1.

Variant WUR-3 assumed 20% transfer, i.e., 10% more than the baseline. The additional transfer was exclusively used for strengthening the AECM-measures. This variant is built on the current CAP and aimed to strengthen sustainability by maximizing the use of the eco scheme.

Reference variant WUR-4 was developed to show the effects of extra efforts on knowledge and innovation, but not on sustainability. For this extra effort, relative to the baseline, an additional 10% is transferred to the second pillar.

The scenarios, thus developed were used in a follow-up exercise as input for budget allocation calculations and some modelling exercises.

3.6.10. Further reading

- The *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (ibpes) provides a general introduction into scenarios and models in policy and strategic design processes: https://www.ipbes.net/scenarios-models
- The Thuenen Institute provides an overview of how scenarios are used in *Model-based policy impact assessment* related to agriculture and rural development: https://www.thuenen.de/en/institutes/rural-studies/fields-of-activity/model-based-policy-impact-assessment
- The BonaRES initiative (Soil as a sustainable resource for the bioeconomy) created a *Framework of Participatory Impact Assessment* (FoPIA) that focusses on stakeholder engagement in scenario development and impact assessment: https://www.bonares.de/socioeconomics/assessment/implementing/fopia?lang=en
- The *Australian Government Guide to Policy Impact Analysis* is addressing policy makers and explain the general benefits of Policy Impact Assessment: https://oia.pmc.gov.au/sites/default/files/2023-02/oia-impact-analysis-guide-nov-22.pdf
- The *Policy Scenario Analysis: A Methodological Overview* originates from the field of fisheries in Bangladesh. Despite the different policy context, the description of the Policy Scenario development is useful also for CAP https://www.bobpigo.org/img/Policy-Scenario-Analysis-A-Methodological-Overview.pdf

4. Outlook

The co-designed implementation guidelines for the six approaches / tools will in Task 3.3 undergo a rigorous assessment to evaluate their consistency and suitability for supporting the new CAP implementation model. This evaluation will ensure that the developed tools align with the principles of good governance and effectively support the CAP framework.

Following the assessment, the appropriate technical protocols will be integrated into the methodological guidelines. These guidelines will be applied and further refined in the case studies conducted under Work Package 5 (WP5). This phase will ensure that the selected tools are used appropriately and effectively in practical applications.

Based on insights gathered from Work Package 1 (WP1) and previous tasks in Work Package 3 (WP3), comprehensive roadmaps for the uptake in MS of the specific tool or approach will be developed. This roadmap will provide best practices and guidance for practitioners, facilitating the selection and implementation of appropriate tools in specific policy settings.

The Decision-Making Tools Methodological Guidelines (Deliverable 3.3) will be finalised by December 2024. These guidelines will incorporate the revised implementation guidelines and best practices identified throughout the year.

Lessons learned from the implementation of case studies (WP5) and multi-stakeholder focus groups (WP6) will inform the updating of the methodological guidelines. This phase will ensure that the guidelines remain relevant and effective based on practical experiences and stakeholder feedback.

The results from Task 5.2 will provide feedback essential for finalizing the guidelines under D3.4. Ensuring links with WP1, Task 3.2, and Task 5.2 will involve staying updated with the relevant deliverables and seeking clarifications

when necessary. Coordination with Tasks 5.2 and 5.3 will be facilitated by UL leading these tasks, ensuring comprehensive coverage of the guidelines and roadmap content. Additionally, UL will prepare the CDE materials under WP6 according to the templates provided by the WP6 leader.

These structured and interconnected activities will ensure the successful implementation and continuous improvement of the developed tools and methods, fostering effective policy implementation and good governance practices.

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