



ACHIEVING HIGH-INTEGRITY VOLUNTARY CLIMATE ACTION

D3.7 - Interim report on expert survey / outline

WP3 Strengthening key design features
and governance frameworks for



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Responsible Author	Lauri Peterson		UEF
	lauri.peterson@uef.fi		
Contributors	Lauri Peterson (UEF); Catherine Hall (UEF); Sara Tolonen (UEF); Karin Bäckstrand (SU); Alexander Nordt (SU); Alexandra Buylova (SU)		
Reviewer(s)	Harro van Asselt (Cambridge U); Florian Antony (ÖKO); Lambert Schneider (ÖKO); Lars Albus (ÖKO); Maria Iro Baka (E3M); Sophia Lauer (ÖKO), Anne Siemons (ÖKO)		
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EC Summary Requirements

1. Changes with respect to the Description of Action (DoA)

No changes with respect to the work described in the DoA.

2. Dissemination and uptake

This report offers insights for a broad range of stakeholders engaged in voluntary climate governance, regulatory design, and climate action at national, European, and international levels.

Within the ACHIEVE project, the report serves as a foundational synthesis for the research team and partners, providing an analytical baseline for subsequent work for the Regulation & Governance stream. Voluntary climate initiatives participating in or studied by the project can use the findings to reflect on their own governance design, particularly regarding transparency, accountability, equity, and the relationship between voluntary commitments and international, EU, and national regulatory frameworks.

Outside the project, the report is relevant to several audiences. Policymakers and government agencies at the national and EU level can draw on the framework mapping and case study findings to assess how regulatory design enables or constrains voluntary climate action, and how state-initiated intermediaries can be structured for greater effectiveness and longevity. EU institutions may find the cross-level governance analysis useful as they consider the further integration of voluntary and compliance frameworks, particularly in carbon markets and sustainability disclosure.

Voluntary climate initiatives and their coordinators can use the expert survey findings to benchmark their governance practices against integrity criteria associated with credibility and effectiveness. For carbon market participants and standard-setters, the analysis of structural gaps in carbon market governance, including the unresolved relationship between Article 6.4 and EU compliance frameworks, offers directly relevant diagnostic insights.

Researchers and academic institutions working on climate governance, orchestration theory, and voluntary action will find the comparative case study analysis and survey methodology of interest for further inquiry. International organisations including the UNFCCC secretariat and bodies involved in Article 6 implementation may also find the institutional analysis and governance recommendations pertinent to ongoing rulemaking processes.

3. Short summary of results

This report presents a first synthesis of research examining voluntary climate action (VCA) governance across international, EU, and national levels, drawing on a framework mapping



exercise, two national case studies, a carbon market governance analysis, and an expert survey.

First, this mapping reveals a dense but fragmented governance landscape. At the international level, the Paris Agreement, ICVCM, VCMI, ISSB disclosure standards, and SBTi define an increasingly layered architecture for credible voluntary commitment. At the EU level, seven binding instruments including the CSRD, CSDDD, Taxonomy Regulation, and CRCF have significantly raised integrity requirements for corporate climate action. Cross-level coordination remains incomplete, most acutely in the governance of carbon credits.

Second, the carbon market governance faces structural gaps in accountability for environmental and social outcomes, unresolved tensions between voluntary certification and compliance frameworks, and underdeveloped procedural safeguards in the Article 6.4 Supervisory Body.

Third, the case studies of Fossilfritt Sverige in Sweden and the Nationaal Klimaat Platform in the Netherlands demonstrate that state-initiated intermediaries can effectively convene actors, generate sectoral roadmaps, and translate national climate targets into voluntary action. Effectiveness depends on operational autonomy, long-term mandates, and stable national regulatory conditions, none of which are consistently present.

Fourth, the expert survey finds that high-integrity design increases rather than deters participation; that national regulatory instability is the primary constraint on voluntary ambition; and that EU governance provides more enabling conditions than national frameworks. Equity, inclusion, and adaptation remain under-addressed across initiatives.

The overarching finding is that voluntary initiatives perform best as part of a hybrid governance model anchored in stable and ambitious regulation.

4. Evidence of accomplishment

This interim report.

5. Disclosure statement on the use of generative artificial intelligence (AI)

Microsoft Copilot and Anthropic's Claude Opus 4.6 were used for language editing and correcting typographical errors. The authors critically reviewed the outputs of the tool by evaluating the relevance and validity of the outputs before integrating them with the authors' own work. The authors take full responsibility for the work.



Preface

In recent years an unprecedented number of voluntary climate commitments have been made by a wide array of non-state and subnational actors. These voluntary climate actions aim to reduce greenhouse gas emissions and build climate resilience and are crucial for lowering risks of exceeding warming limits. However, the full potential of voluntary climate action can only be realised when integrity-related concerns are overcome. ACHIEVE aims to identify opportunities to strengthen and scale up high-integrity voluntary climate action towards achieving net-zero emissions by mid-century. The project will generate transformative and timely scientific insights on the role, effectiveness and integrity of voluntary climate action including carbon credits; assess the integrity and impacts of such action; analyse how policies and regulations, and high-integrity voluntary climate action can strengthen each other; and use scientific findings to support the scaling up of high-integrity voluntary action. This will be achieved through a highly inter- and transdisciplinary consortium that, from the start, actively engages policymakers and other societal stakeholders in co-creating outcomes that respond to end users' needs. ACHIEVE is aligned with the Work Programme of Cluster 5, Destination 1 "Climate sciences and responses for the transformation towards climate neutrality" as the project directly contributes to advancing knowledge and providing solutions for climate change specifically on high integrity voluntary climate action. ACHIEVE will develop transition pathways to climate neutrality that integrate voluntary climate action by cities, regions and companies; it will develop novel social science insights for climate action; contribute to better understanding sustainability co-benefits and trade-offs; and increase transparency and trust in voluntary climate action by strengthening integrity and making scientific results easily accessible for different stakeholder groups.

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Executive Summary

This interim report presents a first synthesis of results from an expert survey on voluntary climate initiatives alongside outlines of the analysis of national regulatory approaches, and European and international governance frameworks. Together, these components map the architecture of voluntary climate action (VCA) governance at both international and EU levels, examine how two national governments have deployed state-initiated intermediaries to coordinate voluntary action, analyse structural governance challenges in carbon markets, and draw on practitioner perspectives to assess what design features make voluntary initiatives credible and effective.

Chapter 2 maps the Paris Agreement and its Article 6 mechanisms supply the treaty foundation for international climate governance, with Article 6.4 establishing the Paris Agreement Crediting Mechanism as a centralised UN-supervised crediting system, while Article 6.2 sets the overarching accounting requirements governing the transfer of mitigation outcomes between Parties. Alongside these treaty-based arrangements, independent integrity initiatives, particularly the ICVCM and SBTi, and sustainability disclosure standards developed by the ISSB increasingly define what credible voluntary commitment requires. At the EU level, a dense and binding regulatory architecture comprising the BMR, SFDR, Taxonomy Regulation, CSRD/ESRS, CSDDD, CRCF, and ECGT has transformed a previously self-regulated landscape.

Chapter 3 analyses carbon market governance, which faces three structural challenges: underdeveloped accountability for environmental and social outcomes beyond carbon accounting; persistent tensions between voluntary certification and compliance frameworks, particularly regarding CDR integration into the EU ETS; and institutional design concerns around delegated quasi-regulatory authority, most acutely in the Article 6.4 Supervisory Body, where procedural safeguards remain under development.

Chapter 4 examines state-initiated intermediaries. The cases of Fossilfritt Sverige (FFS) in Sweden and the Nationaal Klimaat Platform (NKP) in the Netherlands illustrate how governments deploy intermediary organisations to translate national climate targets into coordinated voluntary action across businesses, municipalities, and civil society. Both platforms demonstrate that operational autonomy from governments enables more entrepreneurial engagement with target groups. Both initiatives have had a clear influence on policy. However, neither imposes binding disclosure or accountability requirements on participants, mandates are time-limited, and effectiveness depends heavily on the stability of the surrounding national policy context.

Chapter 5 discusses the preliminary findings of the expert survey. Practitioners consistently indicate that a high-integrity design (i.e. clear science-based targets, transparent reporting, and public accountability) increases rather than deters participation. National regulatory instability is identified as the most significant constraint on voluntary ambition, while EU-level governance is viewed as more enabling. Adaptation remains underweighted relative to mitigation, and equity





and inclusion are weak points across initiatives.

The overarching finding is that voluntary climate action delivers best when embedded in stable, ambitious regulatory frameworks rather than operating as substitutes for them. Raising integrity standards, strengthening accountability mechanisms, and ensuring deliberate coordination across governance levels are necessary conditions for voluntary action to contribute credibly to net zero at scale.



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List of abbreviations

BMR	Benchmarks Regulation
CCPs	Core Carbon Principles
CDM	Clean Development Mechanism
CDR	Carbon Dioxide Removal
COP	Conference of the Parties (to the UNFCCC)
CRCF	Carbon Removals and Carbon Farming Regulation
CSRD	Corporate Sustainability Reporting Directive
CSDDD	Corporate Sustainability Due Diligence Directive
CSO	Civil Society Organisation
CTB	EU Climate Transition Benchmark
DNSH	Do No Significant Harm
ECGT	Empowering Consumers for the Green Transition Directive
EFRAG	European Financial Reporting Advisory Group
ESG	Environmental, Social, and Governance
ESMA	European Securities and Markets Authority
ESRS	European Sustainability Reporting Standards
EU	European Union
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GHGP	Greenhouse Gas Protocol
ICVCM	Integrity Council for the Voluntary Carbon Market
IFRS	International Financial Reporting Standards
ISO	International Organization for Standardization
ISSB	International Sustainability Standards Board
ITMO	Internationally Transferred Mitigation Outcome
MS	Member State (of the European Union)
NCA	National Competent Authority
NDC	Nationally Determined Contribution
NFRD	Non-Financial Reporting Directive





PAB	EU Paris-Aligned Benchmark
PAIs	Principal Adverse Impacts
PACM	Paris Agreement Crediting Mechanism
SAF	Sustainable Aviation Fuel
SASB	Sustainability Accounting Standards Board
SBTi	Science Based Targets initiative
SFDR	Sustainable Finance Disclosure Regulation
SMEs	Small and Medium-Sized Enterprises
SMF	Sustainable Marine Fuel
TABs	Taxonomy-Aligning Benchmarks
TCFD	Task Force on Climate-related Financial Disclosures
UCPD	Unfair Commercial Practices Directive
UNFCCC	United Nations Framework Convention on Climate Change
VCA	Voluntary Climate Action
VCI	Voluntary Climate Initiative
VCMI	Voluntary Carbon Markets Integrity Initiative
WP	Work Package





1 Introduction

This interim report presents a first synthesis of the analysis of European and international governance frameworks, national regulatory approaches, and preliminary results from the expert survey. Together, these components advance an integrated understanding of how voluntary climate action can be designed and governed to achieve high integrity while reinforcing public policy objectives.

The mapping of international and EU frameworks examines how meta-governance arrangements at both levels collectively define what counts as credible voluntary action. Rather than treating these arrangements in isolation, the analysis attends to their interactions and to the normative hierarchies that emerge as soft law instruments harden into regulatory reference points or market requirements. The carbon credit analysis focuses on one of the most consequential and contested domains within voluntary climate governance, with particular attention to the evolving governance arrangements governing nature-based credits and preliminary proposals for strengthening relevant frameworks. The case studies examine the relationship between national regulatory contexts and voluntary climate action as a bidirectional governance dynamic, analysing how regulatory frameworks create enabling conditions through accountability mechanisms, disclosure requirements, and due diligence obligations, while also exploring how ambitious voluntary commitments generate political and market pressure for more stringent policy. The expert survey offers systematic insight into how practitioners understand the benefits of initiative membership, its governance quality, the design characteristics they associate with credible outcomes, and where they identify opportunities for interaction with EU and national policy frameworks.

Across these components, several key patterns emerge consistently. We find a gap between ambition and accountability. Frameworks at all levels establish targets, standards, and aspirational commitments without sufficient mechanisms that verify progress, enforce obligations, or assign consequences for non-performance. This is visible in the absence of mandatory disclosure requirements for participants in state-initiated intermediaries such as FFS and NKP, in the voluntary nature of carbon market integrity frameworks such as the ICVCM and SBTi whose authority rests on market acceptance rather than legal obligation, and in the expert survey finding that initiatives function primarily as coordination and advocacy platforms rather than for implementation. While the governance landscape has become more complex, this has not necessarily translated into deeper accountability.

A second pattern is the progressive blurring of the boundary between voluntary and compliance frameworks. The CSDDD and CSRD are reshaping what was previously voluntary corporate territory through binding due diligence and disclosure obligations. Article 6.4 units are being positioned as eligible simultaneously in voluntary and compliance contexts. VCMi's January 2026 requirement that Carbon Integrity Claims rely on CCP-Approved or Article 6.4 credits imports quasi-regulatory standards into a voluntary market.



Third, equity, inclusion, and adaptation are structurally underweighted relative to mitigation across all domains examined. This pattern appears in the expert survey scores on justice-oriented practices, in the limited social integrity requirements documented across carbon crediting rules, in the intermediary case studies where civic engagement remains largely instrumental to agenda-setting rather than substantive in shaping initiative design, and in the carbon market analysis where accountability mechanisms for positive social outcomes lag behind carbon accounting. This reflects a wider dynamic in climate governance in which mitigation has historically attracted stronger institutional attention and more developed measurement frameworks than adaptation or distributional justice. Voluntary governance tends to mirror rather than correct these asymmetries.

Finally, the interim evidence points toward a hybrid governance model as the appropriate institutional form for voluntary climate action. Voluntary initiatives are effective at specific functions: convening, norm diffusion, agenda-setting, and generating early market signals. Binding regulation cannot easily replicate this. However, these functions are best performed when voluntary initiatives are embedded within stable, and adequately resourced regulatory frameworks. EU-level governance is perceived by survey respondents as providing more enabling conditions than national frameworks, which are found to be more unstable and under-resourced across the three surveyed countries. This asymmetry between EU and national levels is itself a structural governance challenge that future work will need to address in developing recommendations for enhancing the coherence, effectiveness, and integrity of voluntary climate action within European and international governance architectures.





2 Mapping international and EU frameworks for voluntary climate action

Authors: Lauri Peterson, Catherine Hall

2.1 Introduction

Insufficient progress toward the temperature goal of the Paris Agreement has triggered a wave of climate commitments from non-state and subnational actors. These commitments are an important piece of contemporary global climate governance. Voluntary climate action (VCA), however, faces persistent challenges of integrity, including fragmentation, inconsistent standards, greenwashing, and accountability deficits. Absent robust governance structures, the credibility and effectiveness of VCA risk being undermined.

High-level regulatory frameworks, also called meta-governance arrangements, can play a central role in addressing the limitations of VCA while promoting its integrity. Meta-governance arrangements, understood as the 'governance of governance' (Kooiman and Jentoft 2009), offer a crucial layer of structure to guide and coordinate lower-level initiatives. Such arrangements have multiplied in recent years at two relevant levels. At the international level, the architecture has evolved from the largely state-centric design of the UNFCCC and Paris Agreement toward a more layered system in which Article 6 cooperative mechanisms, independent integrity initiatives such as Voluntary Carbon Markets Integrity (VCMI) Initiative, and disclosure standards (e.g. Science Based Targets initiative - SBTi) increasingly shape what counts as credible voluntary action. At the EU level, a dense and interconnected regulatory architecture has emerged, primarily in relation to corporate and financial climate action. Prior to this, the EU's VCA landscape was highly fragmented, with actors largely self-regulating their climate commitments. This section builds on previous reviews of VCA initiatives and their relationship with EU regulations (e.g. Haase et al. 2025), while also providing an update in relation to changes brought on by the EU Omnibus Directive (Directive 2019/2161).

The preliminary mapping is discussed as following. First, it will map the relevant international frameworks that provide the basis for global VCA, covering the UNFCCC, the Paris Agreement, independent integrity initiatives, and sustainability disclosure and target-setting standards. Second, it will map the EU regulatory architecture for VCA, including seven key regulatory instruments. Third, it will provide context on the interplay between international and EU frameworks, and within different levels of governance. Finally, it will end with conclusions and ways forward.

2.2 International frameworks

2.2.1 The UNFCCC and the Paris Agreement

The international climate regime is anchored in the UN Framework Convention on Climate Change (UNFCCC, 1992) and the Paris Agreement (2015). The Paris Agreement establishes





obligations on Parties through Nationally Determined Contributions (NDCs) under Article 4 and a long-term temperature goal of well below 2°C, with efforts toward 1.5°C, in Article 2. For voluntary climate action, the most directly relevant provisions are in Article 6, which establishes three cooperative mechanisms enabling States to pursue their NDCs collaboratively. Article 6.2 establishes a decentralised, country-led approach permitting bilateral or multilateral transfers of Internationally Transferred Mitigation Outcomes (ITMOs) between Parties. Article 6.4 establishes a centralised UNFCCC-supervised mechanism, the Paris Agreement Crediting Mechanism (PACM), while Article 6.8 provides for non-market approaches. Although Article 6 is formally a State-to-State framework, it has become a key reference for VCA integrity in three key ways.

First, the methodologies and procedural standards adopted by the Supervisory Body, including additionality, baseline-setting, monitoring, and verification, set a public benchmark that voluntary carbon market standards increasingly seek to mirror. Second, corresponding adjustments raise the question of how voluntary purchases relate to a host country's NDC accounting, and thus whether and when a credit can support a corporate 'neutrality' claim without being double-counted against a State's contribution. Third, authorised Article 6 units are increasingly entering voluntary carbon market discussions, but their perceived integrity varies significantly across mechanisms. Emission reductions issued under Article 6.4 are often presented as candidates for high-integrity supply due to the development of centralised rules and oversight under the UNFCCC Supervisory Body, although this remains contingent on the stringency of methodologies and implementation. By contrast, Article 6.2 internationally transferred mitigation outcomes (ITMOs) are generated through decentralised bilateral arrangements, which are less standardised and centralised compared to Article 6.4. As a result, their quality is highly heterogeneous and, in some cases, has been questioned in early expert reviews, drawing comparisons to the weaknesses observed under Kyoto Joint Implementation (Track 1). Accordingly, while some governance initiatives have treated authorised units as a potential signal of credibility, such an assumption does not hold consistently, and particularly for Article 6.2 units. For voluntary carbon market purposes, Article 6.2 ITMOs carry significant quality uncertainty, and governance frameworks that rely on authorisation status as a proxy for high integrity may risk importing that uncertainty into their credibility claims.

2.2.2 Independent integrity initiatives

Alongside the Article 6 architecture, two private and multistakeholder initiatives have established themselves as the dominant integrity benchmarks for the voluntary carbon market. On the supply side, ICVCM has developed ten Core Carbon Principles (CCPs), which set a global threshold standard for what constitutes a high-integrity carbon credit (ICVCM 2026b). The CCPs cover programme governance, registry infrastructure, transparency, robust independent third-party validation and verification, additionality, permanence, robust quantification, no double counting, sustainable development benefits, and contribution toward a net zero transition. The ICVCM operationalises the CCPs through a two-tier assessment: it first assesses whether a carbon-



crediting programme is CCP-Eligible at the institutional level, and then assesses whether specific methodology categories within an eligible programme are CCP-Approved. Only credits issued under CCP-Approved categories within CCP-Eligible programmes are entitled to bear the CCP label. As of May 2026, ten carbon-crediting programmes have been approved as CCP-Eligible, including Verra, Gold Standard, ACR, ART TREES, CAR, and most recently the Global Carbon Council. The Governing Board has issued decisions on 65 methodology categories in total, approving 40 and finding 25 not to meet the relevant criteria, with approximately 107 million credits now eligible to use the CCP label (ICVCM, 2026a).

On the target-setting side, the Science Based Targets initiative (SBTi) has become the dominant framework through which companies translate the Paris Agreement goals into corporate near- and long-term emission reduction commitments. The SBTi validates company targets as science-aligned and maintains a public registry of approved commitments, giving it significant market and investor influence. Its Corporate Net-Zero Standard Version 2.0 is under development, with the process complicated by significant institutional turbulence in 2024, when a proposal to allow carbon credits to count toward scope 3 targets generated substantial controversy and contributed to board-level departures (SBTi 2025).

The VCMi Claims Code of Practice operates on the demand side, providing rules for how companies may make climate claims based on credit retirement, requiring retirement of CCP-Approved or Article 6.4 credits from January 2026 and positioning credit use as additional to rather than substituting for internal decarbonisation. The ICVCM's governance has faced direct challenges, with key members of the expert panel stepping down (Schneider 2024; Fuessler 2024). The pace of CCP labelling has also lagged considerably behind the volume of credits in circulation, leaving the large majority of the market unassessed. Taken together, these limitations underscore that the voluntary integrity architecture, though increasingly influential, remains institutionally fragile and is not yet capable of delivering the systematic, verifiable quality assurance that its governance role implies. Sustainability disclosure and target-setting standards

Two further international frameworks shape how VCA is reported, measured, and assessed. The Greenhouse Gas Protocol, first published in 2001, is the world's most widely used GHG accounting standard and underpins almost all corporate emissions reporting (WRI and World Business Council for Sustainable Development 2004). While not in itself a regulatory instrument, it provides the foundational metrics (Scope 1, 2, and 3) on which higher-order frameworks rely, including the EU's ESRS, the ISSB's IFRS S2, the SBTi target-setting methodology, and the CCPs.

The International Sustainability Standards Board (ISSB), established by the IFRS Foundation in 2021, has developed IFRS S1 (general sustainability disclosures) and IFRS S2 (climate-related disclosures), both issued in June 2023 (IFRS Foundation 2023). The ISSB Standards build directly on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), whose monitoring responsibilities the IFRS Foundation has assumed, and integrate elements of the SASB Standards. IFRS S2 requires entities to report Scope 1, 2, and 3 emissions in accordance



with the GHG Protocol, set climate-related targets, conduct climate scenario analysis, and disclose information about transition plans where relevant. Crucially, the ISSB Standards are designed to function as a global baseline that jurisdictions can adopt or use as the foundation for their own requirements. As of mid-2025, 36 jurisdictions, represented more than ~60% of global GDP, had adopted, were in the process of adopting, or were otherwise using IFRS S1 and S2.

Sitting alongside these technical standards is the report Integrity Matters, published in 2022 by the United Nations Secretary-General's High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities (UN 2022). The report sets out ten recommendations on what constitutes a credible net zero pledge, including the need for absolute, science-aligned interim targets, transition plans, and the prohibition of new fossil fuel investments. Although non-binding, Integrity Matters has supplied substantial normative content that has been absorbed into other frameworks, including the SBTi, the VCMi, and several jurisdictional regimes.

2.3 The EU regulatory architecture

The EU has constructed a dense and interconnected regulatory architecture around corporate and financial climate action, which has transformed a largely self-regulated landscape into binding meta-governance instruments. We outline seven central instruments:

- (1) The Benchmarks Regulation
- (2) The Sustainable Finance Disclosure Regulation
- (3) The Taxonomy Regulation
- (4) The Corporate Sustainability Reporting Directive,
- (5) The Corporate Sustainability Due Diligence Directive
- (6) The Carbon Removals and Carbon Farming Regulation
- (7) The Empowering Consumers for the Green Transition Directive

The mapping of EU regulatory instruments in this report reflects the legal framework as it stood following the entry into force of the Omnibus I Directive (Directive (EU) 2026/470) on 18 March 2026. Where Omnibus I has materially amended the scope, obligations, or enforcement architecture of instruments discussed, these changes are noted at the relevant point in the text.

2.3.1 The Benchmarks Regulation

The Benchmarks Regulation (BMR) was adopted in June 2016 and entered into force in January 2018. It is directly binding in all Member States. Originally designed as a response to the benchmark manipulation scandals that followed the 2008 financial crisis, it sets out a common framework to ensure the accuracy and integrity of indices used as benchmarks. While sustainability was not part of the original design, the Regulation has since evolved to integrate climate-related objectives. The BMR primarily governs benchmark administrators, contributors, and users within the EU, as well as non-EU administrators whose benchmarks are used within the



EU. It originally adopted an 'all-encompassing approach' (aiming to regulate every single financial index used in the EU), but has narrowed its focus to 'critical' and 'significant' benchmarks, and to specific climate benchmarks, since its 2019 and 2021 amendments. Its scope captures the full benchmark lifecycle and applies primarily to actors within the financial services sector.

For VCA integrity, the most important amendment to the original BMR was the creation of two climate-specific benchmark categories: the EU Climate Transition Benchmark (CTB) and the EU Paris-Aligned Benchmark (PAB). Administrators wishing to label benchmarks under either category must comply with minimum standards laid down in Commission Delegated Regulation 2020/1818. Both categories share the goal of promoting decarbonisation but apply different thresholds. The CTB permits exposure to high-emitting sectors, provided the portfolio achieves at least a 30% reduction in emissions intensity compared with its parent index, alongside an annual 7% decarbonisation trajectory. The PAB applies more rigorous standards aligned with a 1.5°C pathway, requiring at least a 50% emissions intensity reduction, the same annual 7% decarbonisation trajectory, and the exclusion of all fossil fuel-related activities. The BMR also imposes ESG disclosure obligations. Administrators must explain how ESG factors are accounted for in their methodologies, and explicitly state where they are not. By establishing minimum standards for climate benchmarks and ESG-related transparency, the BMR plays a normative role in strengthening VCA integrity and reducing the scope for misleading claims.

The BMR does not provide direct guidance on carbon credits. Enforcement is decentralised through national competent authorities (NCAs), which may impose financial penalties, withdraw authorisations, issue public warnings, and order cease-and-desist measures. The European Securities and Markets Authority (ESMA) supervises EU critical benchmark administrators and recognised non-EU administrators.

2.3.2 The Sustainable Finance Disclosure Regulation

The Sustainable Finance Disclosure Regulation (SFDR) was adopted in November 2019 as part of the EU's broader sustainable finance agenda. Its general provisions came into effect in March 2021, and the detailed Regulatory Technical Standards have applied since January 2023. It is directly applicable across Member States. The SFDR's main objective is to harmonise transparency by standardising sustainability disclosures and minimising the risk of greenwashing. Article 1 sets out 'harmonised rules for financial market participants and financial advisers on transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their processes'. Its scope covers a wide range of financial market participants and advisers, including asset managers, insurance companies, pension funds, and non-EU entities marketing financial products in the EU (Table 1). It applies at both entity and product level.

For VCA integrity, the SFDR's contribution lies in its mandatory two-tier disclosure architecture.





Level 1 establishes high-level, principles-based obligations for transparency, requiring financial market participants to disclose how sustainability risks are integrated into investment decisions and to report on principal adverse impacts (PAIs). Pre-contractual disclosures must explain how sustainability risks affect returns, with additional requirements for products that promote environmental or social characteristics (Article 8 products) and for products pursuing sustainable investment as an objective (Article 9 products). Level 2 consists of more detailed Regulatory Technical Standards, specifying how firms must calculate, report, and present sustainability information through harmonised templates, predefined indicators, and quantitative metrics. By doing so, the SFDR significantly enhances comparability across financial products, reduces the risk of unsubstantiated environmental claims, and contributes to efforts to combat greenwashing.

The SFDR does not contain dedicated provisions on carbon credit use. Enforcement is decentralised through NCAs. While initially limited, enforcement has increased in recent years, including through fines (ESMA 2025).

2.3.3 The Taxonomy Regulation

The Taxonomy Regulation (Regulation (EU) 2020/852) was adopted in June 2020 and is operationalised through a series of delegated acts. Its overarching objective is to facilitate capital flows to sustainable investment by establishing a common classification system for environmentally sustainable economic activities. Article 1 provides that the Regulation 'establishes the criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally sustainable'. The Regulation's reporting scope is not free-standing: it follows the scope of the Corporate Sustainability Reporting Directive (CSRD), meaning that the entities required to report under the CSRD are those required to disclose Taxonomy alignment under Article 8.

Table 1. Post-Omnibus summary of entities covered by Taxonomy Regulation

Entity	Criteria
Large EU companies (the single mandatory threshold)	More than 1,000 employees and net turnover exceeding €450 million.
Listed SMEs	Fully excluded from mandatory scope.
Companies below the threshold	Out of mandatory scope; may report voluntarily under an opt-in regime.
Non-EU companies	The EU subsidiary or branch must generate more than €200 million net turnover (up from €40m), and the non-EU group must have EU-wide turnover exceeding €450 million.

The main standards influencing VCA integrity relate to the Regulation's classification system. In line with Article 3, an activity qualifies as environmentally sustainable if it: (1) contributes substantially to one or more of the EU's six environmental objectives (enumerated in Article 9); (2) does not cause significant harm to any of the other environmental objectives; (3) complies



with the minimum safeguards set out in Article 18; and (4) meets the detailed technical screening criteria. Companies in scope must report the share of their turnover, capital expenditure, and operating expenditure that is Taxonomy-aligned. By providing a common, regulated definition of 'environmentally sustainable', the Taxonomy reduces the scope for unilateral and inconsistent claims about green economic activity. Enforcement follows the CSRD framework, with disclosures overseen by national competent authorities designated under that Directive.

The Omnibus I Directive (Directive (EU) 2026/470, published 26 February 2026 and applying from 18 March 2026) has narrowed the scope of mandatory Taxonomy disclosure to companies with more than 1,000 employees and net turnover exceeding €450 million (Table 1). This substantially reduces the population subject to alignment reporting, concentrating the regime on large enterprises.

2.3.4 The Corporate Sustainability Reporting Directive and ESRS

The CSRD significantly expands the EU's corporate sustainability reporting framework. Table 2 presents post-Omnibus I Directive rules.

Table 2. Post-Omnibus summary of entities covered by CSRD and timeline of reporting year

Entity	First reports due	Criteria
Large public-interest entities	2025 (covering financial year 2024)	Companies already subject to the NFRD (public-interest entities with more than 500 employees). Those now below the new thresholds receive a transition exemption for FY2025 and FY2026; from FY2027 the new scope applies.
All other large EU companies	2028 (covering financial year 2027)	Companies meeting both thresholds: more than 1,000 employees and more than €450 million net turnover.
Non-EU companies	2028 onward (covering financial year 2027)	Non-EU parent with more than €450 million net turnover in the EU, plus an EU subsidiary or an EU branch with more than €200 million net turnover.

The CSRD operationalises its requirements through the binding European Sustainability Reporting Standards (ESRS). ESRS 1 (General Requirements) sets out overarching principles, including the central principle of double materiality, which requires companies to disclose both impact materiality (how their business affects environment and society) and financial materiality (how sustainability-related risks affect their business). ESRS 2 (General Disclosures) defines core reporting obligations applicable to all companies and mandates disclosures across four key areas: governance; strategy; impact, risk, and opportunity management; and metrics and targets. The framework is supplemented by topic-specific standards. The climate change standard (ESRS E1) sets out nine subcategories of mandatory disclosure requirements covering transition plans, climate policies, actions, targets, energy usage, greenhouse gas emissions, carbon credits,



internal carbon pricing, and financial impacts.

In terms of integrity, ESRS E1 regulates transparency around carbon credits, requiring disclosures of both in-value-chain removals and credits used outside the value chain, including volume, quality, and future reliance. However, it does not itself define or prescribe any minimum quality criteria for those credits. Enforcement is delegated to NCAs and has included administrative sanctions and, in some Member States, criminal penalties. Because sanctions are set at national level, there is significant variation. Some Member States have relatively robust administrative fine regimes for financial reporting non-compliance that will extend to sustainability reporting; others have weaker enforcement traditions or lower maximum penalties (Accountancy Europe 2025).

Table 2 shows that thresholds were lifted in the Omnibus I Directive toward companies with 1000 employees and €450m turnover (Council of the EU 2026). Reporting requirements for listed SMEs have been removed and become voluntary. Non-EU threshold aligned upward ($\approx$ €450m). Omnibus I also limits mandatory value-chain reporting, allowing companies to rely more extensively on estimates and safe harbour provisions where data from suppliers is unavailable, thereby reducing compliance burdens but also weakening granular traceability of climate-related impacts. While the core principle of double materiality remains intact, Omnibus I introduces proportionality constraints that may limit the depth of impact materiality assessments for certain undertakings

2.3.5 The Corporate Sustainability Due Diligence Directive

The Corporate Sustainability Due Diligence Directive (CSDDD) was adopted in May 2024 and entered into force in July 2024. Member States are required to transpose it into national law. Its objective is to embed sustainable and responsible corporate practices, moving beyond disclosure toward behavioural obligations. Recital 6 articulates this aim: to ensure that companies 'contribute to sustainable development and the sustainability transition of economies and societies through the identification, and where necessary, prioritisation, prevention and mitigation, bringing to an end, minimisation and remediation of actual or potential adverse human rights and environmental impacts'.

As originally adopted, the CSDDD applied to large EU companies with more than 1,000 employees and net worldwide turnover exceeding €450 million, as well as to non-EU companies generating more than €450 million in net turnover within the EU. Following the Omnibus I Directive (Directive (EU) 2026/470, in force 18 March 2026), these thresholds have been substantially raised to 5,000 employees and €1,500 million in net worldwide turnover for EU companies, and to €1,500 million in EU-generated turnover for non-EU companies, removing a large proportion of originally in-scope companies from the directive's obligations.

The CSDDD's contribution to VCA integrity in the EU rests primarily on its binding due diligence duty, which requires in-scope companies to identify, prevent, mitigate, and remedy adverse impacts on human rights and the environment within their own operations, their subsidiaries,





and their chains of activities. As originally adopted, the directive also required the largest companies to adopt and implement climate transition plans aligned with the 1.5°C goal, with Article 22 imposing specific interim targets for 2030 and at five-year intervals up to 2050, and where appropriate absolute emission reduction targets for Scope 1, Scope 2, and Scope 3 emissions for material categories. The Omnibus I Directive has repealed Article 22 in its entirety, on grounds that its provisions were disproportionate, created excessive administrative burden, and generated legal uncertainty. The CSDDD's direct contribution to corporate climate accountability is therefore now confined to the due diligence obligation, without any accompanying binding requirement to plan or commit to emission reductions.

The CSDDD does not provide explicit guidance on the use of carbon credits, leaving an interpretive grey area: it remains unclear whether offsets count toward compliance with any residual climate-related obligations, or whether their use triggers additional due diligence requirements. As regards enforcement, NCAs supervise compliance and the directive provides for administrative sanctions capped at 3% of net worldwide turnover. The Omnibus I Directive has substantially amended the civil liability architecture of Article 29: the explicit obligation on Member States to introduce civil liability specifically linked to failures of due diligence has been deleted, as has the overriding mandatory application requirement that would have made EU liability rules applicable to cross-border claims. Civil liability for CSDDD breaches now depends on national tort law in each member state, creating a fragmented enforcement landscape in place of the originally envisaged harmonised EU-wide regime. The directive retains provision for injunctive relief in the form of orders requiring companies to undertake corrective measures or halt harmful practices, and representative organisations retain some capacity to bring actions on behalf of affected persons, though the strengthened access to justice provisions of the original Article 29(3) have been partially curtailed.

2.3.6 The Carbon Removals and Carbon Farming Regulation

The Carbon Removals and Carbon Farming (CRCF) Regulation was adopted in November 2024, with phased implementation. Its objective is to establish a transparent and credible certification system for permanent carbon removals and carbon farming, articulated in Article 1: 'to facilitate and encourage the deployment of permanent carbon removals, carbon farming and carbon storage in products by operators or groups of operators' (currently, the development of certification methodologies for carbon storage in products is on hold though).

The CRCF Regulation establishes a voluntary framework, its scope is limited to projects that actively choose to participate. Key sectors targeted include agriculture, forestry and land use, industry, and potentially construction.

The substantive heart of the CRCF Regulation is the Q.U.A.L.I.T.Y framework: four overarching certification quality criteria (quantification, additionality, storage and liability, and sustainability) which carbon removal and carbon farming activities must satisfy. According to the definition set



in the CRCF Regulation quantification requires removal activities to measure and report the amount of CO₂ removed or soil emissions avoided using robust and transparent methodologies, while certification requires demonstration of a verified net carbon removal benefit. Additionality requires removals to go beyond business as usual, excluding activities already required by law, considered standard sectoral practice, or economically feasible without support. Storage, monitoring, and liability requires operators to ensure carbon is stored permanently or, at a minimum, that the project is designed for long-term storage, with monitoring obligations and liability for any released carbon. Sustainability requires that activities do no significant harm to the environment and, where possible, generate co-benefits such as climate adaptation or biodiversity protection. All carbon farming activities must result in at least one co-benefit for biodiversity and ecosystem protection and restoration.

Certification methodologies for specific types of removal activities further define and operationalise the criteria which projects seeking certification under the CRCF need to fulfil. A certification methodology for permanent carbon removals, covering DACCS, BioCCS and biochar, was adopted in February. A revised draft of a certification methodology for carbon farming was shared with the European Commission in April 2026. Both the adopted certification methodology for permanent removals as well as the draft methodology for carbon farming include key weaknesses though which threaten the integrity of the framework. Weaknesses in the requirements related to quantification, additionality and long-term storage could result in CRCF units which are not backed by actual carbon removals or emission reductions. Additionally, the methodology for carbon farming activities lacks a systematic approach to sustainability safeguards and it remains unclear how compliance with the stated requirements shall be demonstrated (Fallasch et al. 2025, Siemons et al. 2026).

The CRCF Regulation sets a framework for certification but does not define or regulate the use of resulting CRCF units. Unlike the previous instruments, enforcement does not rely on NCAs but on independent certification bodies, which conduct independent audits to verify compliance with CRCF methodologies. These gaps and weaknesses in the methodologies outlined above are critical because eligible use cases of CRCF units have not been defined by the European Commission. If such units were used for compliance with EU climate targets, the CRCF could pose significant risks, potentially undermining the ability of the EU to achieve these targets.

2.3.7 The Empowering Consumers for the Green Transition Directive

The Empowering Consumers for the Green Transition Directive (ECGT) was adopted in February 2024, with Member States required to transpose it by 27 March 2026. It amends both the Unfair Commercial Practices Directive (UCPD, 2005/29/EC) and the Consumer Rights Directive (2011/83/EU) to enhance consumer protection against greenwashing. Its objective is to promote sustainable consumption and empower EU consumers to make more informed transactional choices. The Directive applies broadly to traders offering goods or services to EU consumers,





including non-EU companies, with marketing, advertising, product claims, and labelling at the centre of its scope.

The ECGT operationalises its objective through additions to the Annex I blacklist of unfair commercial practices in the UCPD. Among the most significant for VCA, generic environmental statements such as 'eco-friendly', 'green', 'ecological', or 'climate friendly' are prohibited unless excellent environmental performance can be demonstrated. Self-created sustainability labels not based on a certification scheme or established by a public authority are also prohibited, targeting the practice of companies awarding themselves uncertified 'eco'-labels. Future climate-related claims, such as 'carbon neutral by 2035', are blacklisted unless backed by clear, objective, publicly available, and verifiable commitments, supported by a detailed and realistic implementation plan. Misleading whole-product claims, where an environmental claim is made about an entire product though it relates only to a particular aspect, are also prohibited.

While the Directive does not regulate the creation, quality, or trading of carbon credits, it bans claims that a product has a neutral, reduced, or positive environmental impact based on offsetting. Such claims are considered misleading unless they reflect the product's actual lifecycle impact. Companies may still communicate their investments in carbon credit projects, provided that the information is presented truthfully and is not misleading. Enforcement is delegated to NCAs, which have power to impose fines of up to 4% of annual turnover and market access restrictions.

The ECGT was originally designed to work in close conjunction with the Green Claims Directive (GCD), which aimed to provide companies with clear guidance on how to substantiate and communicate environmental claims and on the use of environmental labels. However, a gap remains regarding precise and binding obligations governing how green claims must be substantiated since the withdrawal of the GCD.

2.4 Interplay

The instruments described above do not operate in isolation. They function as components of a polycentric governance regime, whose interactions collectively shape VCA integrity. We particularly develop three intra-EU clusters: *classification; transparency and disclosure; due diligence and accountability*.

2.4.1 Classification

The classification dimension of EU meta-governance encompasses a set of instruments that define what counts as environmentally sustainable or climate-compatible, and thereby shape the integrity of claims made by companies, investors, and carbon market participants.

The Taxonomy Regulation and the Benchmarks Regulation form the core of this dimension. The Taxonomy provides the foundational rulebook for environmental sustainability, establishing the



criteria against which economic activities are assessed. The Benchmarks Regulation translates this into measurable financial standards through the Paris-Aligned and Climate Transition Benchmarks. The integrity contribution of this pairing lies in its potential to anchor financial market products to a common, science-based classification, reducing the scope for divergent or self-serving definitions of what constitutes a sustainable or climate-aligned investment. The two instruments are, however, not yet fully operationally integrated: benchmark administrators are not currently required to embed the Taxonomy's technical screening criteria or DNSH requirements into benchmark methodologies. This leaves a gap between the Taxonomy's classification logic and its uptake in financial benchmarking practice.

The CRCF extends this architecture into carbon removals and carbon farming, establishing a parallel certification and classification system for carbon removal outcomes. Its reliance on the same DNSH principle as the Taxonomy suggests a degree of normative alignment, though the CRCF does not formally cross-reference the Taxonomy and the two instruments operate independently. The integrity implication is that carbon removal units certified under the CRCF and activities classified as sustainable under the Taxonomy are subject to conceptually similar but institutionally separate integrity requirements, with no formal mechanism ensuring mutual recognition or consistency. Independent expert analysis has found that the CRCF's draft certification methodologies fall short of the integrity standards established by the PACM across key dimensions including additionality, leakage, permanence, and liability, raising questions about whether CRCF-certified units would meet the threshold that the Taxonomy's own DNSH logic implies (Siemons et al. 2026).

2.4.2 Transparency and disclosure

The transparency and disclosure dimension of EU meta-governance rests on the interlocking relationship between three instruments that together form a regulatory triad: the CSRD, the SFDR, and the Taxonomy Regulation. Each addresses a distinct actor group. The CSRD targets large non-financial and financial companies, while the SFDR targets financial market participants and advisers, and the Taxonomy provides the shared classification system underpinning both. Their combined effect is to construct a layered disclosure architecture that spans corporate reporting, financial product transparency, and sustainability classification.

The integrity contribution of this triad lies in its hierarchical logic: the Taxonomy defines what counts as environmentally sustainable, the CSRD requires companies to report against those criteria, and the SFDR requires financial market participants to disclose how company-level sustainability data translate into the sustainability characteristics of their products. Data flows upward through the chain, with CSRD-reported corporate information feeding directly into the product-level disclosures that financial institutions must produce under the SFDR.

The Omnibus I Directive has, however, weakened the coherence of this triad. The narrowing of CSRD scope means that fewer companies are required to produce the standardised corporate



sustainability data on which SFDR disclosures depend, thinning the base of information available to financial market participants. The Taxonomy disclosure obligation has simultaneously been made voluntary for smaller companies. This results in a disclosure architecture that retains its logic for the largest entities but covers a substantially narrower segment of the economy than originally designed, reducing its reach as an integrity mechanism for voluntary climate action.

2.4.3 Due diligence and accountability

The CSDDD and CSRD share an important linkage. Although the CSRD is primarily a transparency instrument, both directives share the ambition of strengthening corporate responsibility (Net Zero Now 2025) and have been described as having significant overlap and complementary approaches without complete synchronicity (Hauman 2024). The processes developed by companies to comply with their due diligence obligations under the CSDDD will often inform their sustainability statements required under the CSRD; conversely, CSRD reporting requirements help strengthen the transparency and credibility of due diligence obligations. Together, they form a complementary feedback loop.

2.4.4 Interplay between international and EU frameworks

The international and EU layers are increasingly interwoven. Three patterns deserve particular attention. First, the EU disclosure regime is being deliberately aligned with the ISSB IFRS S2 to support interoperability. The ESRS-ISSB Standards Interoperability Guidance, issued by the IFRS Foundation and EFRAG in May 2024, maps the alignment between the climate-related disclosures in ESRS E1 and IFRS S2, allowing companies to satisfy investor-focused ISSB requirements through their CSRD reporting where the two are compatible (IFRS Foundation and EFRAG 2024). The result is a partial bridge between an EU-binding regime and a global voluntary baseline that is itself increasingly being adopted by other jurisdictions.

Second, the international integrity standards developed by the ICVCM and SBTi, together with the Paris Agreement Crediting Mechanism established under Article 6.4 of the Paris Agreement, are entering the EU regulatory orbit through several channels. This interpretive reliance on international standards becomes more significant in the post-Omnibus context, where the narrowing of CSRD's scope and reporting obligations may reduce the detail of firm-level disclosures about reliance on carbon credits. The ECGT's treatment of climate-neutrality claims remains functionally consistent with the VCMI's restrictive approach to permissible claims, even though the Directive does not explicitly reference international standards. In parallel, the CRCF establishes a new EU certification framework for carbon removals and carbon farming. The CRCF envisages that this standard should be aligned with Paris Agreement Crediting Mechanism (PACM) in the future, although the current methodologies set a much weaker standard than the PACM and do not comply with PACM rules (Siemons et al. 2026). Lastly, used international carbon credits, although differ in scope (limited to meet the EU 2040 target). Policy analyses part of ACHIEVE suggest that, credits could come from PACM or equivalent standards (Schneider et al.



2025).

Third, Omnibus I amplifies the indirect role of international standards within the EU system: as formal reporting obligations are changed and, in some cases, reduced, private governance frameworks, such as those developed by VCMi and ICVCM, may assume greater practical importance in shaping corporate behaviour and market expectations. Looking ahead, as the first PACM credits are expected to be issued from 2026, the question of whether and how Article 6.4 units may enter EU compliance and voluntary regimes will become increasingly salient.

Omnibus I affects all three aspects of interplay in the EU governance regime. In the classification nexus, reduced CSRD scope weakens the data foundation for SFDR disclosures. The narrowing of CSRD's scope thins the pool of standardised corporate data available to financial market participants for SFDR compliance and pushes investor-facing disclosures to estimates and self-reported information. This can potentially undermine the integrity logic of the disclosure triad. In the accountability dimension, the repeal of Article 22 removes the only binding corporate climate target-setting obligation in EU law, while the dismantling of the harmonised civil liability regime under Article 29 reduces the enforceability of the remaining due diligence duty, leaving accountability for value chain impacts dependent on the variable robustness of national tort regimes rather than a uniform EU-wide standard.

2.5 Conclusion

This preliminary mapping has covered a layered meta-governance architecture for voluntary climate action that now operates across both international and EU levels. The Paris Agreement and its Article 6 mechanisms supply the public-treaty foundation, while independent integrity initiatives (ICVCM, VCMi), disclosure standards (ISSB), target-setting frameworks (SBTi), accounting standards (GHG Protocol), and authoritative non-binding reports (UN HLEG) increasingly define what counts as a credible voluntary commitment. At the EU level, the Benchmarks Regulation, SFDR, Taxonomy, CSRD/ESRS, CSDDD, CRCF, and ECGT form a dense binding regulatory layer that organises classification, transparency and disclosure, and due diligence and accountability.

Three tensions remain unresolved. The first is authority fragmentation: no single body, public or private, has the legitimacy to determine definitively what 'Paris-aligned' or 'high integrity' mean. The second is the blurring boundary between compliance and voluntary action, as the EU contemplates allowing Article 6 units into its compliance regimes and binding instruments such as the CSDDD and CSRD reshape what was previously voluntary territory. The third is inter-relationships across international, EU, Member State, and corporate levels, compounded by temporal misalignment between instruments. These tensions are not necessarily defects: a degree of diversity may be unavoidable, and perhaps even desirable, in a domain where political will and economic interests are in turbulence. The integrity of voluntary climate action will continue to depend on the careful coordination of multiple meta-governance arrangements,





rather than on the dominance of any single one.

Future research will focus on several aspects that have not been covered extensively by this interim report. Most importantly, we will analyse the role of political turbulence on the EU and national level on the effectiveness and integrity of voluntary climate action. Furthermore, we will continue to study the interaction and synergy of EU and international frameworks.



3 Strengthening carbon market integrity: addressing legal challenges and integrity gaps across market mechanisms and institutions

Author: Sara Tolonen

3.1 Introduction

Carbon markets have become central to market-based climate action (Mehling 2021), channelling incentives for emission reductions and removals (UNDP 2023). Over two decades of parallel public and private initiatives, they have evolved into a fragmented yet versatile and multilayered landscape (Ahonen et al. 2022), comprising publicly regulated systems such as Article 6 of the Paris Agreement (PA) and the European Carbon Removal Certification Framework (EU CRCF) (European Union 2024), alongside voluntary carbon markets (VCM) that rely on certification and project-based approaches. While this institutional diversity enhances adaptability to political and economic changes, it also presents coordination challenges affecting market coherence (Ahonen et al. 2022). Legal frameworks thus shape how these diverse systems define, operationalise, and govern environmental integrity (Schneider and La Toz Theuer 2019), raising the fundamental question of what constitutes credible and legitimate carbon market outcomes.

Carbon markets, particularly Kyoto mechanisms (UNFCCC 1997) and VCMs, have faced widespread criticism. Investigations (Guardian 2023; Compensate 2021) and academic studies (Sasaki 2025; Battocletti, Enriques, and Romano 2024) highlight concerns over inflated baselines and methodological weaknesses in carbon accounting and doubts that many issued credits represent genuine additional emission reductions (Compensate 2021). Criticisms also extend to adverse impacts on local communities and environmental harm (Warner et al. 2023; Seddon et al. 2020; Akanle 2026; IISD 2025; Olawuyi 2016). Yet contemporary carbon markets operate within an evolving landscape shaped by technological developments, convergence between voluntary and compliance systems, and diverse market actors (Wetterberg, Ellis, and Schneider 2024; Ahonen et al. 2022; World Economic Forum 2025; Minas 2022). Moreover, their institutional design emerges from multilateral negotiations marked by contestation, compromise, and divergent national interests (Minas 2022; Bodansky and van Asselt 2024).

Expectations have heightened for carbon credits to deliver beyond carbon mitigation, including the Sustainable Development Goals (SDGs) contributions, and wider environmental and social benefits. In practice, carbon credits support not only mitigation but also corporate claims like “net zero” or “carbon neutrality” (Trouwloot, Streck, and Chagas 2023). Regulatory measures are tightening against greenwashing, emphasising the credibility and substantiation of such claims (European Union 2024a). This section examines how contemporary carbon market governance addresses environmental integrity beyond carbon accounting, with particular attention to co-benefits, institutional accountability, and tensions between voluntary and compliance



frameworks. While this institutional diversity enhances adaptability to political and economic change, it also creates coordination challenges that affect market coherence and the credibility of environmental outcomes.

As carbon credits gain prominence in regulatory and corporate strategies, integrity concerns extend beyond project design to governance, recognition, and use across market settings. Well-structured market mechanisms can deliver significant climate impact, yet their effectiveness depends on governance arrangements across public, private, and hybrid domains. This raises legal questions relating to accountability, legitimacy, and the role of law in shaping market-based climate action.

Addressing these questions requires more than doctrinal analysis. Carbon markets operate across jurisdictions through a fragmented mix of emissions trading and crediting mechanisms, public regulation, private standards, and hybrid governance arrangements, producing unit types and governance processes that are not necessarily fungible with one another (OECD 2012). Law-in-context (LIC) and transnational environmental law (TEL) approaches enable analysis of legal norms within their institutional, economic, and political contexts, while describing the transnational nature of rulemaking and implementation.

LIC situates legal norms within broader political and market dynamics examining their practical operation across jurisdictions (Herlin-Karnell, Conway, and Ganesh 2021; Lederer 2012). TEL maps how norms, standards, and accountability mechanisms emerge and interact across national, international and private domains (Heyvaert, Duvic-Paoli, and Kulovesi 2020; Bulkeley et al. 2014), particularly in market-based and voluntary frameworks that transcend beyond jurisdictional boundaries. The analysis thus examines on how legal frameworks, standards and institutions structure rights, obligations, and accountability, assessing their response to potential integrity and governance gaps.

3.2 Unspecified legal status of non-carbon environmental outcomes

Carbon markets face growing expectations to deliver beyond carbon mitigation, particularly through nature-based solutions (NbS), such as reforestation, afforestation, and ecosystem restoration. These are associated with co-benefits including biodiversity enhancement, water regulation, and soil health. However, their effectiveness depends on implementation. Poorly designed projects, such as monoculture plantations or fast-growing exotic species, can produce unintended trade-offs, including biodiversity loss, adverse impacts on water quality, and harm to local communities (Warner et al. 2023; Seddon et al. 2020). This raises questions about non-carbon outcomes within carbon-centric frameworks.

Environmental integrity thus extends beyond emissions accounting or removals to avoiding environmental harm and delivering positive outcomes. Yet, these dimensions are treated unevenly. EU CRCF, the United Nations Framework Convention on Climate Change (UNFCCC) mechanisms, and leading VCM standards prioritise harm prevention through eligibility criteria, monitoring requirements, and certification. By contrast, co-benefits are typically encouraged





rather than required, and are operationalised through softer tools such as disclosure, contractual provisions, and market incentives.

This imbalance generates underlying legal questions of accountability: Who bears responsibility if co-benefits fail to materialise? Can disclosure, contractual clauses, or verification labels ensure effective accountability? While co-benefits may increase the market value of credits, their legal enforceability remains weak, particularly in voluntary market contexts with minimal public oversight.

Experience from earlier mechanisms illustrate these tensions. The Clean Development Mechanism (CDM) (UNFCCC 1997) and Reducing Emissions from Deforestation and Forest Degradation (REDD+) (UNFCCC 2026) both sought to promote co-benefits alongside carbon outcomes, but their flexible and largely non-prescriptive governance raised concerns regarding the achievement of such co-benefits. Current frameworks, including Article 6 mechanisms and the EU CRCF, seek to draw on these experiences, yet the legal architecture for broader environmental outcomes remains underdeveloped. The result is a governance gap in which harm prevention is relatively well institutionalised, while the delivery and accountability of positive environmental outcomes remain weak. Bridging this gap is essential if carbon markets are to credibly advance both climate mitigation and broader environmental objectives.

3.3 Misalignment between voluntary certification and compliance market logics

Achieving net-zero emissions requires rapid reductions in gross emissions alongside carbon dioxide removal (CDR) to counterbalance hard-to-abate residual emissions from sectors such as agriculture, aviation, shipping, and industry (IPCC 2023). CDR scale depends on carbon budgets and policy choices, and whether fossil fuel phase-out and structural mitigation measures prevail over negative emission technologies (Buck et al. 2022; Günther et al. 2024). Growing reliance on CDR in the European Union's (EU) climate neutrality pathway raises important questions for existing policy instruments.

Integrating CDR into the EU Emissions Trading System (EU ETS) (European Union 2003) requires careful alignment with its cap-and-trade logic, balancing investment incentives for emerging removal technologies against offsetting risks, with voluntary certification serving as a bridge for early deployment (European Commission 2025; European Union 2003) and gradual pre-2040 phase-in now under active discussion in EU policy debates (Cochet 2025). Against this background, the central legal question is whether the EU CRCF provides a sufficiently robust legal and methodological basis for incorporating CDRs into a compliance system. Recent scholarship identifies major structural challenges, including permanence and liability gaps as well as the fungibility of certificate-based approaches with asset-based carbon market architectures (Schuett 2024; Ghaleigh and Macinante 2022; Macinante and Ghaleigh 2022).

Although the CRCF introduces a structured monitoring, reporting and verification framework, fundamental uncertainties remain regarding the status of voluntary certification in compliance



settings, the treatment of reversals, and the allocation of responsibility for non-permanence. If removals are to enter the EU ETS without undermining systemic integrity, certification standards and trading rules must be aligned far more precisely than they are today. As EU policymakers consider the future role of removals in the compliance framework, robust safeguards, harmonised accounting rules, and clear liability provisions remain unresolved prerequisites rather than settled design features.

3.4 Institutional authority and accountability in carbon market governance

Institutional design critically shapes integrity outcomes in carbon markets (Ahonen et al. 2022), positioning emerging governance arrangements as a key object of legal analysis. Article 6.4 of the PA represents a central development, particularly the role of its Supervisory Body (SB) and the structuring of authority, accountability, and decision-making within its institutional architecture (Lo Re and Ellis 2021). Established by the Conference of the Parties (COP) serving as the meeting of the Parties to the Paris Agreement (CMA) (UNFCCC 2021), the SB exercises delegated and quasi-regulatory functions under CMA authority.

These features shape operationalisation of environmental integrity and the governance of mitigation outcomes within the mechanism, while influencing market confidence in the credibility of decisions and accounting arrangements (Jain and Deshmukh 2025; Kerr 2022). Procedural safeguards thus become pivotal. While grievance procedures are under development (UNFCCC 2024), uncertainties persist about independent, transparent review mechanisms, raising concerns over accountability and procedural robustness. Comparative practice across international regimes, including the dispute settlement system of the World Trade Organisation (WTO 1994) and investment arbitration under the International Centre for Settlement of Investment Disputes (ICSID 1966), demonstrate that institutional bodies exercising authority over legal or economic interests, typically incorporate review or appeal mechanisms to ensure procedural legitimacy.

The CDM Executive Board's experience under the Kyoto Protocol offers directly relevant lessons for Article 6.4 governance. Institutional choices regarding discretion and reliance on technical expertise shaped both its credibility and environmental performance, dynamics that remain salient given UNFCCC's continuous practice of delegated rulemaking through COP/CMA subsidiary bodies. CDM literature highlights persistent issues of transparency, accountability, and authority concentration (Voigt 2009; Olsen, Arens, and Mersmann 2018; Rousseaux 2005; Kerr 2022). Article 6.4 confronts parallel challenges: constraints on procedural transparency, underdeveloped review or appeal procedures within the mechanism, and Party oversight through CMA guidance rather than ex-post decision review.

Whether Article 6.4 improves upon or perpetuates CDM shortcomings remains contested. What is clear, however, is that its credibility and effectiveness depend on governance to ensure robust accountability, transparency, and decision-making processes capable of safeguarding



environmental integrity, while sustaining confidence in carbon markets within a system of delegated authority where the SB exercises CMA-conferred functions as a subsidiary body, rather than an autonomous international organisation.

3.5 Structural gaps in carbon market governance and integrity

Three interrelated structural challenges characterise contemporary carbon market governance. First, environmental integrity beyond carbon accounting remains unevenly institutionalised. While safeguards against environmental harm are increasingly embedded, mechanisms to ensure, verify and enforce accountability for positive environmental outcomes remain comparatively underdeveloped.

Second, distinct market logics generate tensions, particularly between voluntary certification and compliance frameworks. These tensions are most evident in the treatment of CDRs, where additionality, permanence, and alignment with compliance market principles remain contested, driving ongoing methodological and governance evolution (Ghaleigh and Macinante 2022; Schuett 2024).

Third, institutional design raises persistent accountability concerns, particularly when authority is delegated to expert bodies operating under public mandates. Even when grounded in international legal instruments, these structures continue to raise issues regarding accountability, transparency, and procedural safeguards for quasi-regulatory decisions (Kerr 2022; Voigt 2009).

Together, these patterns reveal systemic governance deficits: incoherence across frameworks, fragmented authority, and underdeveloped legal articulation of environmental integrity beyond carbon metrics. Although carbon markets are supported by increasingly detailed rules and institutional structures, these three dimensions – environmental outcomes beyond carbon, market alignment across different mechanisms, and institutional accountability – remain only partially resolved. These challenges demonstrate that carbon accounting alone cannot resolve broader questions of legitimacy and governance. While accounting methodologies measure environmental performance, law determines responsibility, allocates obligations, and establishes mechanisms of accountability when environmental claims fail or harms occur.

Carbon markets should therefore be understood not merely as systems of measurement or technical calibration, but as transnational legal institutions whose legitimacy depends on governance structures, procedural accountability, and environmental integrity in a broader sense. From this perspective, addressing structural governance gaps requires explicit legal engagement extending beyond technical accounting solutions, ensuring that carbon market credibility rests not only on quantified mitigation outcomes but also on transparent, accountable, and institutionally robust legal frameworks.



4 National case studies of state-initiated climate intermediaries

Authors: Alexander Nordt, Karin Bäckstrand

Building on the concept of regulatory intermediaries that work in-between policymakers and their policy goals, as defined in governance literature on orchestration (Abbott et al., 2017), recent governance scholarship has focused attention on climate intermediaries, identified as operating between different types of actors or governance levels, to influence policy or stakeholders' behaviour on climate change (Tobin et al., 2023). This section defines and examines cases of *state-initiated climate intermediaries*, established and regulated by national governments as orchestrators and main authority holders. These intermediaries operate at the intersection of public authority and societal engagement, seeking to translate national climate targets into concrete action across sectors and stakeholder groups. This type of orchestration by national government is emblematic of a shift toward polycentric climate governance and has shown potential to mobilise voluntary action by industry and municipalities (Widerberg et al., 2024).

The aim of this case study is to identify functions and policy characteristics of state-initiated climate intermediaries and their impact on stakeholder engagement and dialogue for voluntary climate action. This involves interrogation of purposive choices made by states as authority holders mandating climate intermediaries, and intermediaries' initiatives with participant commitments, to discern interests of actors involved and good-faith efforts (Mason, 2020). To do so we bridge governance literature on orchestration of climate intermediaries (Tobin et al., 2023; Tosun et al., 2023) with mission-oriented innovation policy (Mazzucato, 2018a). The motivation for doing so is that characteristics of mission-oriented policy can often be found, to varying degrees, in state-initiated climate intermediaries, and include a clearly defined mission in terms of solutions to a societal problem like climate change. To achieve mission-oriented goals (transition to net zero emissions), complementary and coherent policies and diffusion of results are needed, and a diverse range of actors participating in and influencing the direction of the mission (Janssen et al., 2021; Mazzucato, 2018a). As such a comprehensive analysis of mission-oriented policy characteristics of state-initiated climate intermediaries may uncover deficient policy areas or lacking functions that could be enhanced by national governments as orchestrators, or by the semi-autonomous intermediaries internally, to better steer intermediaries' initiatives toward mission goals.

This case study contributes to debates on national policy by empirically examining how state-initiated climate intermediaries are orchestrated by national governments to mobilise voluntary climate action by non-state actors in a legitimate manner. It compares functions and policy characteristics of state-initiated climate intermediaries in Sweden, Fossil Free Sweden, and the Netherlands, Nationaal Klimaat Platform. National governments of these countries can be seen as global leaders in orchestration of climate intermediaries that facilitate voluntary non-state climate action. Findings suggests that the influence of intermediary functions, including on





industry engagement and dialogue for societal transition, is likely dependent on the orchestrator balancing control over and autonomy of the intermediary, for shared direction toward mutual goals.

4.1 Conceptual framework

4.1.1 Orchestration of voluntary climate action

In climate governance literature, orchestration refers to international organisations and states that enlist intermediary organisations on a voluntary basis to pursue governance goals on their behalf (Abbott et al., 2015). This relationship is conceptualised as orchestrator-intermediary-target, with targets being citizens or businesses, for example. Intermediaries in orchestration are often non-governmental organisations or multistakeholder platforms (Bäckstrand & Kuyper, 2017). Orchestrators rely on intermediaries for their governance capabilities including direct engagement with targets. Orchestration is indirect since the orchestrator grants material support (e.g. financial) and ideational support (e.g. political endorsement) to an intermediary, to support the governance capacity of the intermediary, and to help create and maintain an actor network by way of voluntary initiatives, facilitated by the intermediary holding convening power (Abbott et al., 2015). In doing this, the orchestrator and intermediary pursue shared governance goals, with the intermediary empowered by but not fully controlled by the orchestrator.

In line with recent calls from climate governance scholars (Tobin et al., 2023; Tosun et al., 2023), we conceptualise intermediaries in climate governance as bridging organisations beyond the established orchestrator-intermediary-target model (Abbott et al., 2017). We follow the definition by Tobin et al. (2023) who build on the concept of regulatory intermediaries and define climate intermediaries as go-betweens in climate governance ‘that operate between different types of actors and/or between levels of governance, acting directly or indirectly to affect stakeholders’ behaviour and/or policy goals on climate change’.

4.1.2 State-initiated climate intermediaries

For states, regulatory tension exists between the regulatory state that sets and enforces laws, and the state as facilitator of multistakeholder action by non-state actors (Widerberg et al., 2024). There is emergent literature that features semi-autonomous intermediaries as instruments of the state that can be orchestrated to achieve centrally determined goals (Arcand, 2025; Eitan et al., 2025). Building on this and intermediary organisations conceptualised in the orchestrator-intermediary-target model (Abbott et al., 2017), we define *state-initiated climate intermediaries* as organisations established and regulated (and financed) by national government to achieve mutual climate goals. Yet what makes this type of intermediary unique in this context is its relative distance from centrally coordinated government policy that allows it to shape its organisational role to avoid becoming politicised, be more dynamic in networking, and better facilitate actor involvement in voluntary initiatives than the national government is often capable of doing



without the establishment of such an intermediary that pursues shared climate goals on its behalf.

Functions of state-initiated climate intermediaries include orchestrating action in-between networks of actors to disrupt unsustainable practices and support diffusion of low-carbon technology and other solutions by way of policy planning and capacity building (Kivimaa, 2014; Kivimaa et al., 2019). Their affiliation with government involves lobbying and visioning to convey expectations and requirements for and to legitimise the institutional change needed to implement climate initiatives (Kivimaa et al., 2020; Kivimaa & Martiskainen, 2018; Nordt et al., 2024a). These intermediaries have networking and facilitating roles to establish voluntary climate initiatives with non-state participation. They engage in knowledge production and dissemination and provide expert advice on, for example, low- and zero-carbon solutions (Chan, 2024).

4.1.3 Mission-oriented policy to steer state-initiated climate intermediaries

The role that national governments play in developing strategies for orchestrated climate action through intermediaries can be seen as complex societal missions requiring institutional and behavioural changes that must be codefined and legitimised by a range of societal actors. The key idea behind mission-oriented innovation policy, which can be subsumed under states' policy and orchestration, is that to tackle complex societal challenges such as climate change, policies are needed for actors and sectors to cocreate and innovate, while at the same time enabling experimentation and learning to create a feedback loop that supports the innovation process (Mazzucato, 2018a). In net zero transitions, political coalitions seek to influence and steer long-term and systemic institutional change to facilitate a transition, for example through climate intermediaries. This requires clear strategy and policy to guarantee that envisioned intermediary functions will be performed in the intended way.

The characteristics of mission-oriented innovation policies for successful implementation include a clearly defined mission, in terms of feasible solutions to address a given societal problem and steered by measurable and time-bound goals. Agenda setting incorporates feedback from the wider public, with mutually acceptable justifications, and opportunity for stakeholders to question decision-making (Janssen et al., 2021; Mazzucato, 2018b). Missions facilitate innovation across sectors and innovation is cocreated by a range of actors, encouraging decentralised control, and for shared sense of direction. The development of both radical and incremental innovation and diffusion of innovation is often a main goal of a mission. Missions may comprise a portfolio of innovation projects that is often uncertain—some projects fail while others succeed (Mazzucato, 2018a).

Characteristics of mission-oriented innovation policy therefore already exist—to different degrees—in the policies of state-initiated climate intermediaries. That is a clearly defined mission in terms of innovative solutions and practices to address the societal problem of climate change, with a broad range of actors participating in and influencing the direction of the mission and diffusion of results from climate initiatives. This case study makes a comparison of mission-



oriented policy and related functions of state-initiated climate intermediaries (summarised in Table 4), in Sweden and the Netherlands, and their steering effect on voluntary climate action by non-state actors.

Table 3. Mission-oriented climate policy characteristics and related functions of state-initiated climate intermediaries.

	Description of mission-oriented climate policy characteristics	State-initiated climate intermediary functions
Clearly defined climate mission and goals	A mission defined in terms of economically feasible and technical solutions to address climate change and transition, with clearly defined goals.	Knowledge production and dissemination
Portfolio of climate action initiatives and experimentation	A mission comprises a portfolio of climate action initiatives that is often uncertain—some fail and others succeed. Stakeholders see failures as learning opportunities and are not held accountable for failures derived from good-faith efforts. Diffusion of results from initiatives is a main goal.	Facilitation of and technical expertise in low- and zero-carbon solutions and practices
Policy agenda setting and civic engagement	Agenda setting and decision-making, as regards goals for a mission, incorporate feedback from the wider public and other stakeholders (mutually acceptable justifications with opportunity for stakeholders to question decision-making).	Policy advocacy and visioning to convey expectations and requirements for and legitimise institutional change
Cross-sectoral and cross-actor cooperation	Missions feature innovative climate action initiatives across sectors (e.g. transport and health). The direction of initiatives is cocreated by a range of actors (e.g. business and civil society).	Networking, and translating and aligning interests between actors

4.2 Methodology

Case selection. We conducted a comparative case study of state-initiated climate intermediaries in Sweden, Fossil Free Sweden, and the Netherlands, Nationaal Klimaat Platform. Both cases are in a multilevel governance setting and feature national governments of Sweden or the Netherlands that orchestrate voluntary climate action through climate intermediaries—with comparable functions including knowledge production for example in the form of research reports, facilitation of voluntary climate initiatives with non-state participation, and political advocacy by way of dialogue between the climate intermediary and national government. In both cases, the targets of state-orchestrated intermediation are primarily businesses and municipalities. A diverse case strategy was followed to show variance in policy characteristics of and functions performed by the climate intermediaries. An exploratory case comparison was used to generate analytically grounded insight into how state orchestration of climate intermediaries operates in practice.

Data. Data triangulation was employed using operationalised concepts that provided a range of units for case analysis, to construct detailed narratives for each case, and for cross-case comparison. Data sources were preliminarily reviewed and selected for case analyses based on



relevance criteria to represent policy characteristics of and functions performed by the state-initiated climate intermediaries. This process resulted in selection of grey literature in the form of 34 reports, authored or commissioned by and obtained from websites of Fossil Free Sweden or Nationaal Klimaat Platform. Data from grey literature was assessed against conceptual categories from Table 1. This was done by categorising data using codes referring to operationalised concepts for systematic case analyses (Table 5). After two rounds of coding for each case, themed descriptive statements emerged from coded data that answered our guiding questions for case analyses.

Data from grey literature was cross-examined with supplementary data obtained from webpages of the intermediary organisation and national government of Sweden or the Netherlands, as well as news and journal articles featuring the cases in question, to evaluate potential biases and ensure reliability. Thematic analyses provided insight on policy characteristics and functions of state-initiated climate intermediaries and their influence on non-state engagement and climate action, orchestrator-intermediary dynamics, and synergies with national policy frameworks.

Table 4. Coding categories (operationalised concepts)

(Mission-oriented) climate policy characteristics	State-initiated climate intermediary functions	Questions guiding coding against coding categories
Climate mission and goals	Conveying knowledge	How is the mission of the climate intermediary defined by feasible and technical solutions to address climate change?
Climate action initiatives	Facilitation of and expertise in climate solutions	How does the climate intermediary choose and develop climate action projects?
Agenda setting and civic engagement	Policy advocacy and visioning	What is expected of participants in climate action projects and what happens if projects do not result in the desired outcome? How does the climate intermediary advocate for climate action?
Cross-sectoral and cross-actor cooperation	Networking, and aligning interests	How does it include the wider public in goal setting and decision-making? How does the climate intermediary cooperate with different stakeholders across sectors on climate action projects?
Orchestrator-intermediary-target relationship		How does it ensure varied perspectives and knowledge are incorporated in such projects? How does the climate intermediary cooperate with the national government?
		Do national policy frameworks steer such cooperation?





4.3 Findings

4.3.1 Fossil Free Sweden (FFS)

Orchestrator-intermediary-target. FFS is a multistakeholder platform launched in 2015 by the Swedish government. In 2016, the Swedish government decided on a directive to appoint a national coordinator for the platform, Svante Axelsson, tasked with steering the platform and its initiatives to support Sweden to become a fossil fuel free welfare country. Since then, FFS has been steered by government directives and its assignment extended in three rounds. FFS facilitates initiatives with participation by non-state and subnational actors including businesses and municipalities that aim to contribute to a transition away from fossil fuel use in Sweden. In line with government directives, the national coordinator of FFS has been given a broad mandate to explore working methods and publicly communicate the work of FFS for visibility. For example, FFS has facilitated the development of 23 sectoral roadmaps for fossil fuel free competitiveness in areas such as steel and cement.

Mission and goals. The mission of FFS is to support the ambition to make Sweden one of the first fossil fuel free welfare countries. In 2017, the Swedish Riksdag (parliament) decided to introduce a climate policy framework that includes a target to reach net zero GHG emissions in Sweden by 2045. The target requires GHG emission reduction of at least 85 per cent from the base year of 1990 and allows for measures such as carbon sequestration and offsets for up to 15 per cent of remaining GHG emissions (*Ett Klimatpolitiskt Ramverk För Sverige* (2016/17:MJU24), 2017). To guide this mission, the platform references the long-term target for Sweden of net zero GHG emissions by 2045. The goal of the platform in achieving its mission is to identify business opportunities to make a transition from fossil fuel use in Sweden economically feasible. Led by its national coordinator, the platform does so as intermediary, between Swedish government and industry and municipalities, that conveys knowledge on technical solutions to support a societal transition to net zero. FFS, as state-initiated climate intermediary, pursues shared governance goals with the Swedish government as orchestrator that both set up and continues to provide ideational support by way of political endorsement to the intermediary in its role as facilitator of emission reduction efforts among target groups, including businesses and municipalities in Sweden.

Climate action initiatives. The main climate action initiatives facilitated by FFS are identified as industry roadmaps and decarbonisation challenges. Primarily between 2018–2020 and within the framework of FFS as facilitator, 23 industries (e.g. aviation and steel) have produced roadmaps that identify opportunities and obstacles for fossil fuel free competitiveness in their industries. Roadmap development for most industries has been led by an industry organisation or in some cases a group of companies or a single company, which has taken ownership of the proposals presented in their roadmap. As facilitator of roadmap work processes, FFS has hosted workshops and reference groups to get broad actor participation and perspective on each roadmap. FFS has launched challenges for businesses, municipalities, and other organisations as signatories to implement measures for decarbonisation. As facilitator, FFS challenges organisations to 1) set a





goal for domestic transport purchased and performed by their organisation to be fossil fuel free; 2) produce solar electricity; 3) introduce an internal travel tax on carbon intensive business travel and; 4) introduce a vehicle fleet policy for procurement of alternative fuel vehicles only. The challenges have approximately 740 actors as signatories in total. FFS therefore facilitates a portfolio of voluntary climate initiatives that are subscribed to by non-state actors in Sweden. While there are no enforced transparency requirements for organisations as regards performance on roadmaps or as signatories to challenges, FFS provides a framework for voluntary commitments and target-setting by organisations that aims to raise the ambition of climate action and diffusion of technology and practices for decarbonisation.

Agenda setting and civic engagement. FFS is an initiative under the Ministry of Climate and Enterprise and administered by the office of its national coordinator who has been appointed by the Swedish government. The role of FFS in industry roadmap development has included advising industry on ongoing Swedish government priorities, to help plan industry action and policy proposals. In 2021 and 2022, follow-up reports on roadmap implementation were presented to Swedish government that outline emission reduction measures taken by industry and progress on 54 policy proposals that FFS has listed as priorities to enable industry transition. FFS has also engaged in civic consultation for example by way of a commissioned report that found a knowledge gap among over 1000 respondents on the pace of Sweden's climate and energy transition.

Cross-sectoral and cross-actor cooperation. Actors formally affiliated with FFS are those that have signed the FFS declaration. To become a signatory, an actor must confirm its support to the FFS declaration—to support Sweden in becoming a fossil fuel free welfare country—and that it has clear goals for reducing its own GHG emissions, making target-setting a key condition for signatories. Over 500 actors have signed the declaration including businesses, public sector, education and research organisations. Signatories of the declaration may be signatories to one or more decarbonisation challenges facilitated by FFS. The challenges are cocreated by a range of actors across sectors, and decentralised, as each actor is responsible for implementing decarbonisation solutions in their organisations. Other organisations cooperate with FFS and are not signatories to the FFS declaration or challenges, but participate in activities of FFS, for example in industry roadmap development. FFS has also established a reference group with 12 members across industry, government, research and non-profit sectors, to contribute to a working method for cooperation between actor groups. FFS therefore aligns interests between a broad range of actors across sectors as facilitator of industry roadmap development, and a joint declaration and challenges for decarbonisation that foster a shared sense of direction among signatories.

4.3.2 Nationaal Klimaat Platform (NKP)

Orchestrator-intermediary-target. The Nationaal Klimaat Platform (NKP) was established in November 2022 by then Minister for Climate and Energy Policy of the Netherlands, Rob Jetten,





with a mandate that has been extended to November 2027. NKP is funded by the Ministry of Climate Policy and Green Growth, which transfers funding to the Physical Environment Consultative Council (OFL), of which NKP is a part. NKP, as state-initiated climate intermediary, facilitates dialogue with citizens and businesses for reflection on consequences of climate change and national climate policy, with a thematic focus on inclusion for just transition toward a low-carbon society. Chairman of NKP, Kees Vendrik, reports to the Minister of Climate Policy and Green Growth (or the minister responsible for a policy area) several times a year with signal reports that reflect on societal developments including opportunities for and bottlenecks to be resolved for citizens and businesses involved in climate action, and related policy considerations.

In 2019, the Dutch Climate Act came into force with a target to reduce GHG emissions in the Netherlands by 49 per cent by 2030 compared to 1990 levels, and the National Climate Agreement of the same year contains policy and measures for sectors to achieve this target (National Climate Agreement of the Netherlands, 2019). In this context, the Dutch government established and continues to provide political support to NKP, an intermediary that engages in dialogue and consultation with citizens and businesses in the Netherlands to address complex societal challenges, including energy accessibility, associated with emission reduction against national climate targets.

Mission and goals. The chairman of NKP has been given the core mission of facilitating discussion with citizens and businesses on climate policy in consultation with the Minister of Climate Policy and Green Growth. The main aims of this mission are 1) to stimulate dialogue on climate policy in society, with attention given to the theme of just transition and including marginalised societal groups in transition to a low-carbon society, and 2) solicited (and unsolicited) signalling and advising to the Minister of Climate Policy and Green Growth on societal developments and citizen reflections on climate policy. Annual reporting by NKP references the emission reduction target of the Netherlands, to reduce GHG emissions by 49 per cent by 2030, as a guide for the platform and its mission, while underlining that the target is not yet within reach.

Climate action initiatives. The main climate action initiatives that NKP facilitates are thematic projects. NKP facilitates a diverse portfolio of projects that focus on, for example, sustainable sports and neighbourhood liveability. NKP, in collaboration with sports and energy sector stakeholders, and the Dutch Ministries of Health, Welfare and Sport (VWS) and Climate Policy and Green Growth (KGG), has developed an agreement for sustainable sports to make policy recommendations to the Dutch government, aimed at improving energy affordability for sports clubs. A focus on neighbourhood liveability by NKP has included mapping to identify opportunities for more sustainable homes and livelihoods, subsequently presented to ministers from various Dutch ministries, including VWS and KGG, for dissemination. NKP facilitates climate action through a portfolio of initiatives that aims to support inclusive practices for accessible energy and household sustainability across sectoral and actor groups in the Netherlands.

Agenda setting and civic engagement. NKP engages in development of policy proposals and agenda setting through multistakeholder alliances on thematic policy areas. The Heat Alliance, facilitated



by NKP, consists of more than 200 actors including municipalities, umbrella organisations, energy cooperatives, and grid operators. It was founded in 2025 and has jointly formulated a 'Heat Offer', to convey requirements for district-oriented planning to develop affordable heat and legitimise institutional change for heat transition in the built environment, with the aim to connect more than half a million households in the Netherlands to a collective heating network by 2035. In April 2025, in a letter to the House of Representatives of the Netherlands, the Minister of Climate Policy and Green Growth addressed policy suggestions for heating networks of the Heat Offer and outlined intentions by the Cabinet of the Netherlands to implement them (House of Representatives of the Netherlands, 2025). The NKP-facilitated Social Alliance, founded in 2023, precedes the Heat Alliance and consists of a broad coalition of over 100 actors including peak industry and umbrella organisations, and energy cooperatives, with a focus on advocacy to prevent the stall of national climate policy. Since then, the Social Alliance, in varying compositions, has jointly addressed ministers and the Cabinet of the Netherlands with proposals for greater clarity and implementation of national climate policy.

Cross-sectoral and cross-actor cooperation. NKP engages a diverse range of stakeholders in the Netherlands as facilitator of a portfolio of climate initiatives and multistakeholder alliances. To further cooperation, the 'Acceleration Dialogue' consists of a group of sustainability professionals that meet several times a year to collaborate with NKP. The group participants bring varied perspectives and reflect on their practical experience to identify opportunities and interventions for shaping the direction of national climate policy and energy transition. The Acceleration Dialogue functions as an internal advisory board to NKP and gives an opportunity for stakeholders to question decision-making and influence activities of NKP. Though the chairman of NKP retains responsibility for the functioning and external reporting of the platform.

4.4 Implications

Findings indicate that the national coordinator of FFS and chairman of NKP have had the autonomy to maintain distance from and establish a feedback loop between national government for shared direction and to manage tensions arising from the targets of national climate policy. As indicated by a broad mandate given to FFS to explore working methods with industry and independently develop policy proposals for consideration by the government of Sweden. While NKP has engaged in (unsolicited) advising to the Dutch Minister of Climate Policy and Green Growth who expressed plans to implement policy suggestions by NKP aimed at affordable residential heat. Yet a state-initiated climate intermediary cannot be expected to implement mission-oriented policy in a fully coherent way or perform all its intended functions, for example due to limited capacity or varying national policy frameworks that support intermediary activities (Kivimaa et al., 2020; Tobin et al., 2023). Some national governments may have limited political opportunity to establish intermediaries that focus on scaling technical solutions for emission reduction, particularly if livelihood realities in a low-carbon economy are





highly contested and politicise citizen engagement. This is more likely to be the case in economies reliant on a workforce in and weak capacity to transition away from fossil fuel extractive and intensive industries (Walwyn, 2020; Warren et al., 2016). In other European Union Member States, for example Poland (Kuchler & Bridge, 2018), a higher reliance on fossil fuel extractive industry has been linked to socio-technical narratives that act to limit the political ambition of national government to facilitate a low-carbon transition. In a country context where net zero is highly contested, the relative distance of intermediaries from national government and politics may enable a more catalytic role with other stakeholders in net zero transition processes, without politicising actor involvement in intermediaries' voluntary climate initiatives (Rosenbloom & Meadowcroft, 2022). Here though, orchestrated efforts led by international organisations may prove more successful in establishing intermediary organisations that facilitate climate initiatives at national level (Abbott et al., 2015; Bäckstrand & Kuyper, 2017). Even so, in this context, climate intermediaries are also likely to face challenges and may be viewed as a provocation, both by communities reliant on job opportunities from high-emitting industries, and national governments that respond to industry and citizen concerns on distributional dimensions of a low-carbon economy (Marquardt & Bäckstrand, 2021; Yuana et al., 2020). The higher profile of an orchestrator may expose the orchestrator-affiliated intermediary to political obstruction and reduce its entrepreneurial capacity and ability to influence target groups such as citizens or businesses (Breznitz & Ornston, 2013). This highlights the balance of autonomy of versus control over a climate intermediary, relative to its orchestrator (an international organisation or national government), that must be struck for mutual goal achievement (Abbott et al., 2015; Arcand, 2025).

Orchestration is a form of soft governance, meaning that states, for example, enlist intermediaries on a voluntary basis to facilitate climate action, often without an enforcement mechanism for active stakeholder participation (Abbott et al., 2015). This is demonstrated by organisations as signatories of the FFS declaration that must have own goals for reducing their emissions and may also be signatories of a decarbonisation challenge facilitated by FFS—though progress disclosure on commitments as a signatory is not required. While NKP-facilitated thematic climate projects and alliances do not facilitate explicit climate commitments nor progress reporting by participants. Future research should examine views of stakeholders on more stringent measures to reduce information asymmetries between and heighten accountability of participants in voluntary initiatives. For example, acceptance of mandatory disclosure of progress for participants in emission reduction initiatives, combined with a review mechanism, facilitated by state-initiated climate intermediaries (Mason, 2020). Though self-regulating initiatives have been shown as best complemented with, rather than a replacement for, national regulatory frameworks to steer implementation of climate pledges by non-state actors (Widerberg et al., 2024). Binding commitments are particularly important to spur climate action by businesses in sectors late to abate their emissions, where soft governance is less likely to stimulate concrete measures for emission reduction, due to cost and readiness concerns associated with implementing low- and zero-carbon technology in such sectors (Nordt et al., 2024b; Turnheim & Sovacool, 2020). In addition to accountability concerns, longevity of climate



action facilitated by intermediaries is often limited, due to time-limited government mandates. A national policy for long-term orchestration is needed to ensure intermediary-facilitated climate initiatives do not peak and fade at national level (Chan et al., 2022). This highlights that newly launched state-initiated climate intermediaries are preceded by earlier examples in other national contexts and so there is potential for policy diffusion to be considered by states as orchestrators (Dobbin et al., 2007).



5 Expert survey on the effectiveness of national and EU regulations

Authors: Alexandra Buylova, Karin Bäckstrand

Climate governance has been heralded for its experimental, polycentric and bottom-up logic with a plethora of voluntary commitments at global, regional and domestic levels. The Marrakech Partnership for Climate Action and the Global Climate Action Portal (GCAP) contain more than 40,000 commitments, by networks, companies, investors, cities and regions. This has spurred climate action among states that have adopted a plethora of voluntary climate action platforms to achieve national climate targets, illustrated by multistakeholder platforms such as Fossil-Free Sweden and Climate Partnerships in Denmark. Challenges of domestic voluntary climate action are similar to those found in GCAP, namely effectiveness, democratic legitimacy, accountability and inclusion. The aim of this survey is to assess the perceptions of integrity of voluntary climate action in selected European countries by members of voluntary climate initiatives and the role of EU and national climate regulations in supporting climate action. More specifically, the objectives of the survey are two-fold. It aims to understand (1) the effectiveness of EU and national regulations in enabling more ambitious climate action by non-state and sub-state actors and (2) the integrity of voluntary climate initiatives, with the subsequent goal to understand how perceptions of voluntary climate action influence perceptions of climate regulation and vice versa. It does so by evaluating perceptions of non-state and sub-state actors via semi-structured online survey.

5.1 Methodology

The measurements of integrity and effectiveness are based on perceptions of actors and survey participants involved in voluntary climate actions. Survey participants were asked to evaluate several dimensions of high-integrity governance principles that were developed by the ACHIEVE project and in consultation with existing academic literature. As a result, participants evaluated work of voluntary climate initiatives (internal goals, processes, aims) that they are part of across three dimensions of integrity: robust climate action, justice and equity, and accountability and transparency. The survey target group was members of the voluntary initiatives, who are able to evaluate the internal processes and organisational functions of the initiatives, and thus for us to understand reasoning behind their membership in the initiatives, rather than the integrity of the outcomes that might be visible to outsiders. We acknowledge that there are limitations to such selection of survey participants and might introduce a bias where respondents inflate their perceptions because they are members of the initiatives. The survey also included an experimental part, where respondents were asked about their willingness to participate in a voluntary initiative upon reading a hypothetical description of an initiative that was randomly presented to respondents. We developed two types of hypothetical descriptions, corresponding to high-integrity principles and flexible principles. We included the experimental part to control for “membership bias” and understand respondents’ perceptions towards a hypothetical voluntary initiative, thus removing the attachment to the initiative that they are part of. The





survey was administered using online subscription-based platform Qualtrics. Only selected members of ACHIEVE project have access to survey results, which are stored on institutional protected platforms. Respondents were presented with an overview of the survey and its goals before agreeing or not to take part in a survey. Survey responses are anonymous and did not track respondents' web location. We asked respondents to optionally provide a name of their organisation and their position, to be able to ensure robustness of our findings. The survey was sent out to participants of voluntary climate initiatives in three countries: Sweden, Spain, and Estonia. These countries represent different parts of the EU and can also be considered leaders in climate action in the EU, which allows us to target actors with experience in climate action. The current survey wave included the total population of the participants of the following voluntary initiatives: Fossil Free Sweden (Sweden), Viable Cities (Sweden), CitiES2030 (Spain), R-Club (Estonia). The target audience are unions, companies, NGOs, cities that are members of the voluntary multistakeholder climate initiatives. We have identified emails of participants via websites and social media (e.g. LinkedIn). Participants of R-Club were reached via a contact person working for the initiative, instead of direct emails to the members.

Several hypotheses based on the survey have been submitted and pre-registered at the online platform *AsPredicted* before the survey was launched (Link to the shareable PDF of the registration: <https://aspredicted.org/j6mn9y.pdf>). Survey was sent out on March 3, 2026. Follow up reminder email was sent on March 24, 2026. Results presented below were recorded on April 9, 2026. Total invitations sent out: Spain (N=57), Sweden (N=672), Estonia (invitations were sent via a contact person representing R-Club initiative, and the total number of invitations is unknown). Undeliverable emails: Spain (N=5), Sweden (N=15). Total number of completed responses as of April 9, 2026, is N=137. Approximate response rate (excluding numbers for Estonia): 19%.

5.2 Findings

5.2.1 Part 1 – types and characteristics of respondents

Survey results for Part 1 below provide descriptive statistics on the type of respondents by the type of organisation, type of climate-related efforts done by their organisations, and their membership in voluntary climate initiatives. Results are presented as total counts. Total number of respondents for each question is presented next to the question name.





Table 5. Types and characteristics of respondents

Response	Number of Responses	Notes/observations
Q1: ORGANISATION TYPE (N=110)		
Small- and medium-sized business	31	Most of the survey participants represent different types of businesses, local governments, and non-governmental organisations.
Large business	21	
Academic or research institution	4	
Non-governmental organisation	15	
Intergovernmental organisation	1	
Small- and medium-sized local government	26	
Large-sized local government	15	
Government (other than local)	4	
Other	15	
Q2: CLIMATE-RELATED EFFORTS BY YOUR ORGANISATION (N=110)		
Greenhouse gas (GHG) emissions reduction	110	Respondents undertake most of the climate-related efforts in the list presented to them. Biodiversity conservation is the least implemented action.
Energy efficiency	98	
Renewable energy transition	99	
Climate change adaptation	82	
Biodiversity conservation	75	
Other	14	
None of the above	5	
Q3: VOLUNTARY CLIMATE INITIATIVE MEMBERSHIP (N=128)		
Fossil Free Sweden (Sweden)	36	Most of the survey participants represent two voluntary climate initiatives in Sweden. Interestingly, 29 respondents said that they represent other initiatives not already listed, even though we targeted our invitations to the members of the four initiatives listed here.
Viable Cities (Sweden)	28	
citiES2030 (Spain)	1	
R-Club (Estonia)	3	
Coordinator of an initiative	9	
Member of another voluntary initiative	29	
Not a member of any initiative	22	
Notes: respondents could choose multiple responses for questions Q1 and Q2.		



5.2.2 Part 2 – perceptions of integrity principles of voluntary climate initiatives

Survey results for Part 2 and Part 3 below focus on the perceptions of the voluntary climate initiatives: integrity principles, reasons for becoming a member, challenges encountered. Noticeably, number of respondents in this part is smaller, because only those who are part of the voluntary initiatives received these questions.

Table 6. Perceptions of integrity principles of voluntary climate initiatives

Response	Mean	Notes/observations
Q4: INTEGRITY PRINCIPLES PROMOTED BY THE INITIATIVE YOU ARE PART OF (N=92) (Likert Scale from 1 = strongly disagree to 5=strongly agree)		
Climate action		
The initiative sufficiently promotes reduction of greenhouse gas emissions before emissions offsets	3.89	For the most part, respondents evaluate performance of voluntary initiatives along the three categories of integrity as above average.
The initiative sufficiently promotes adaptation to climate impacts	2.93	
The initiative sufficiently encourages clear, science-based goals for reducing emissions on time	3.84	
Justice and equity		
The initiative sufficiently promotes consideration of climate impacts on vulnerable populations	2.82	Justice and equity category receives some of the lower scores among the rest.
The initiative sufficiently combines scientific, local, and practical knowledge in its activities	3.76	
The initiative sufficiently includes underrepresented groups in its agenda-setting and decision making	2.55	
Accountability and transparency		
The initiative is sufficiently accountable to the general public and integrates feedback from the public into decision making of the initiative	3.08	
The initiative sufficiently maintains reporting mechanisms with clear guidelines	3.30	
The initiative sufficiently maintains internal accountability mechanisms for participants such as Codes of Conduct or internal audits	3.07	



5.2.3 Part 3 – reasons for joining and challenges facing voluntary initiatives

Table 7. Reasons for joining and challenges facing voluntary initiatives

Response	Number of Responses	Notes/observations
Q5: REASONS FOR JOINING THE INITIATIVE (N=92)		
The initiative facilitates multistakeholder climate action projects	59	The most popular reasons for joining the voluntary climate initiatives are the fact that the initiative contributes to achieving national GHG emission targets and the initiative conducts advocacy and campaigning for climate action. Least popular reasons are assistance with implementing on-the-ground action and funding assistance.
The initiative assists with technical implementation and ‘on-the-ground’ action	13	
The initiative facilitates communication between members of the initiative	61	
The initiative conducts research on climate action and/or conveys knowledge and technical expertise on climate action and solutions	38	
The initiative conducts advocacy, lobbying, campaigning and visioning for climate action	63	
The initiative contributes to achieving national GHG emissions targets	66	
The initiative influences more effective national regulation and policymaking	35	
The initiative supports institutional capacity building	30	
The initiative provides funding for climate action	19	
I don’t know	1	
Other	6	
Q6: WHAT KIND OF SUPPORT DO VOLUNTARY INITIATIVES GET FROM NATIONAL GOVERNMENT (N=90)		
Political support	17	According to the respondents, voluntary initiatives get the most support from national governments in the form of financial support, and least in the form of regulatory and administrative support.
Regulatory support	3	
Administrative support	18	
Financial support	38	
No support	21	
I don’t know	19	
Other	7	
Q7: CHALLENGES FACED BY THE VOLUNTARY INITIATIVES (N=87)		
The initiative does not face a challenge	4	Challenges faced by voluntary initiatives identified by most of the respondents include restrictions associated with current political turbulence and lack of a mandate to do more on climate action. The least common challenge is lack of engagement by participants.
The initiative lacks mandate to do more on climate action	32	
The initiative lacks capacity to support participants	19	
The initiative lacks engagement by participants	2	
The initiative ignores local circumstances	6	
The initiative does not allow for varied views on climate action	10	
The initiative is restricted by the recent political turbulence	43	
I don’t know	15	
Other	13	
Notes: respondents could choose multiple responses for Q5-Q7		





5.2.4 Part 4 – Experimental section

In Part 4 of the survey respondents are randomly assigned to read one of the hypothetical descriptions of a voluntary initiative presented below. After reading the description, they answer two questions: how likely they are to join this initiative and how effective they think this initiative would be in addressing emission reductions. The experiment presents the respondents with two initiatives described below.

High standard initiative: A new voluntary climate initiative is launched. The initiative presents itself as one that: sets clear, science-based emission reduction targets with clear deadlines and with regular progress tracking. It requires participants to report progress through a shared platform, and results are displayed on a public accountability dashboard. The initiative also promotes engagement with diverse stakeholders and supports members in assessing the social and environmental impacts of their actions.

Flexible initiative: A new voluntary climate initiative is launched. The initiative presents itself as one that encourages and supports climate action but does not require setting specific targets or following reporting standards. Participants are free to define and track their own progress in ways that suit their local circumstances. The initiative aims to encourage broad participation by keeping reporting and stakeholder engagement optional, while providing tools and guidance for those who wish to use them.

Table 8. Likelihood of joining the initiative and its effectiveness

Response	Mean	Notes
Q8: LIKELIHOOD OF JOINING THE INITIATIVE (N=62) <i>(Likert Scale from 1 = strongly disagree to 5=strongly agree)</i>		
High standard initiative	3.27	Respondents are more likely to join a standard initiative than a flexible initiative.
Flexible initiative	2.76	
Q9: EFFECTIVENESS OF THE INITIATIVE IN EMISSION REDUCTIONS (N=62)		
High standard initiative	3.24	Respondents think that a high standard initiative would be more effective than a flexible initiative.
Flexible initiative	2.38	

5.2.5 Part 5 – Perceptions of national level regulation

Part 5 and Part 6 of the survey focused on the perceptions of national and EU Green Deal regulations respectively.

Q10: Does national regulation enable more ambitious climate action, respondents answered with **2.65 mean** score on the Likert scale 1=strongly disagree and 5=strongly agree (total N=110).



**Table 9. Perceptions of national level regulations**

Response	Number of Responses	Notes
Q11: IF AND HOW NATIONAL POLICIES CONSTRAIN MORE AMBITIOUS CLIMATE ACTION (N=112)		
No constraints (national regulation is supportive and effective)	7	Most frequently mentioned reasons for how national policies constrain more ambitious climate action are political constraints (defined as regulatory changes are unstable due to shifts in government priorities) and limited clarity and ambition (understood as regulations exist but lack clarity and enforcement).
Limited clarity and ambition (regulations exist but lack clarity, ambition, or enforcement)	56	
Lack of legitimacy (regulations are inconsistent, politically contested, or not trusted)	43	
Limited support and resources (regulations exist but lack funding or implementation capacity)	48	
Overly burdensome (regulations restrict innovation or add compliance costs)	21	
Inconsistent (conflicting rules across sectors or jurisdictions cause confusion)	30	
Slow to adapt (regulations lag behind technological or scientific developments)	29	
Politically influenced (regulatory changes are unstable due to shifts in government priorities)	75	
Other	14	
Notes: respondents could choose multiple responses for Q11		

5.2.6 Part 6 - Perceptions of the EU Green Deal

Q12: Does the EU Green Deal enable more ambitious climate action, respondents answered with **3.71 mean** score on the Likert scale 1=strongly disagree and 5=strongly agree (total N=107).

Table 10. Perceptions of the EU Green Deal

Response	Number of Responses	Notes
Q13: WHICH PARTS OF THE EU GREEN DEAL CONSTRAIN MORE AMBITIOUS CLIMATE ACTION (N=112)		
Fit for 55 package	7	Majority of the respondents think that none of the parts of the EU Green Deal mentioned constrain more ambitious climate action. Many also mentioned "I don't know", potentially pointing to the fact that respondents do not work closely with EU regulation.
REPowerEU plan	2	
Net-Zero Industry Act	7	
Nature Restoration Law	8	
Corporate sustainability reporting directive (CSRD)	15	
Corporate Sustainability Due Diligence Directive (CSDDD)	5	
Carbon Border Adjustment Mechanism (CBAM)	3	
EU Taxonomy	12	
Sustainable Finance Disclosure Regulation (SFDR)	2	
Carbon Removals and Carbon Farming Regulation (CRCF)	4	
Other	16	
I don't know	33	
None of the above	39	
Notes: respondents could choose multiple responses for Q13		





5.3 Discussion and implications of the results

1. *High-integrity design of voluntary initiatives increases their legitimacy and participation*

Respondents are more likely to join and view as effective voluntary initiatives that have clear, science-based targets, reporting requirements, and public accountability mechanisms. This suggests that raising integrity standards does not deter participation; rather, it enhances perceived effectiveness and attractiveness.

2. *Justice and equity remain a weak point in voluntary initiatives*

Lower scores on inclusion of underrepresented groups and consideration of vulnerable populations allude to the fact that initiatives surveyed may risk legitimacy gaps. Hence, this suggests that voluntary climate governance may struggle to claim public trust and gain more members without stronger justice-oriented practices.

3. *Adaptation is underprioritised compared to mitigation*

While emissions reduction is relatively well addressed, adaptation is scored lower. This implies a need for voluntary initiatives to adjust their agendas to reflect climate risk management alongside mitigation.

4. *Voluntary initiatives function more as coordination and advocacy platforms than implementation vehicles*

The main reasons for joining voluntary initiatives relate to networking, advocacy, and contributing to national targets, while technical implementation support and funding for climate action are least prioritised as reasons for joining. This stands in slight contrast to the result of question 6, where respondents indicate that the most support that voluntary initiatives receive from national governments is in the form of financial support. However, it seems that this financial support does not trickle down to the members but is used to enable the work of the initiatives. This potentially also points to the fact that actors require greater regulatory, coordinating and political support to enable more ambitious climate action rather than financing and on the ground technical support.

5. *National regulation is perceived as a bottleneck rather than an enabler*

Respondents largely view national frameworks as politically unstable, unclear, or under-resourced. This signals that lack of clear and consistent national regulation constrains ambition among respondents.

6. *EU-level governance is seen as more enabling than national policy*

The EU Green Deal scores higher than national regulation, suggesting that supranational frameworks might provide stronger credibility, direction, and policy alignment for voluntary action. EU Green Deal is not seen as constraining by respondents, majority indicating that none





of the listed EU Green Deal regulations are constraining more ambitious climate action. In fact, regulatory changes due to changing government priorities are seen more constraining than regulations as such. However, more positive outlook on the EU Green Deal might be since respondents are less familiar and less influenced by the EU Green Deal in their everyday work, while national regulation is what they deal with more often.

7. Political instability undermines voluntary climate action

“Political turbulence” emerges as the most cited challenge, highlighting that voluntary initiatives might be highly sensitive to shifting political priorities and lack resilience without regulatory backing.

8. Capacity and mandate gaps limit effectiveness

Many initiatives lack the authority or resources to push members toward greater ambition, implying that clearer mandates or formal links to policy processes could strengthen their impact.

9. Member engagement is not the primary problem

Low concern about lack of participant engagement suggests that motivation for voluntary climate action and more ambitious climate action exists; the greater challenge lies in structural and institutional constraints rather than willingness to act.

10. Voluntary action works best as part of a hybrid governance model

Overall, the findings imply that voluntary initiatives are most effective when complemented by clear, ambitious, and stable national and EU regulations that provide direction, legitimacy, and resources.





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