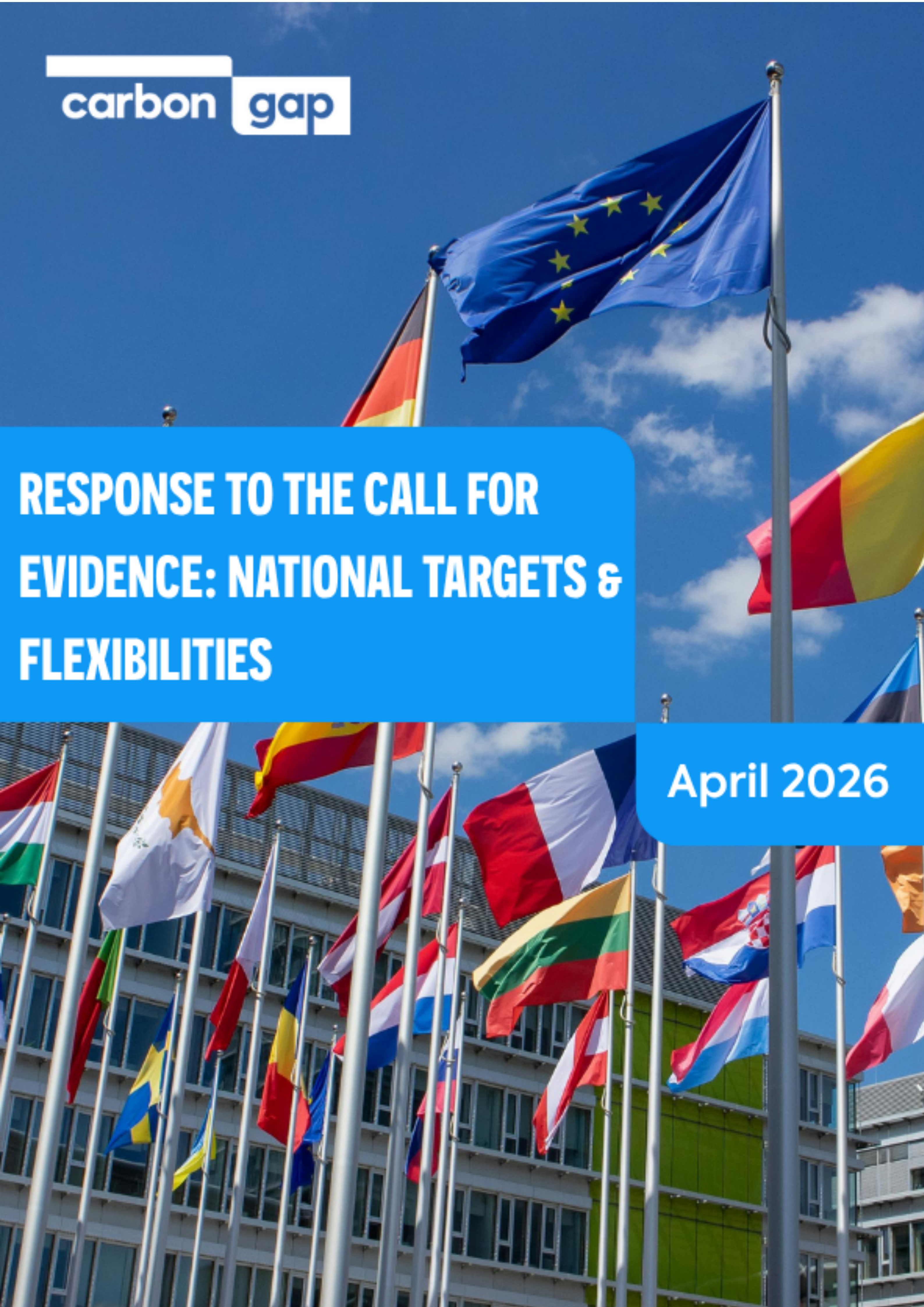

RESPONSE TO THE CALL FOR EVIDENCE: NATIONAL TARGETS & FLEXIBILITIES

April 2026

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Carbon Gap is an independent, Brussels and UK-based non-profit organisation supporting Europe's unique opportunity to lead the responsible deployment of carbon dioxide removal (CDR) to fight climate change through independent and science-led advice.

KEY RECOMMENDATIONS

1. **Keep national climate targets binding and clearly structured.** Binding national targets should remain the foundation of the post-2030 framework, because they provide accountability and investment certainty. A pillar-based architecture, with separate frameworks for emissions reductions (ETS and ESR) and land use (LULUCF), provides clearer governance and should be maintained. Economy-wide national targets may be considered only under strict safeguards to prevent substitution between fundamentally different types of climate action.
2. **Design flexibility as a limited support tool, not a substitute for domestic action.** Flexibilities should be quantitatively limited and only accessible under clearly defined conditions, including volume caps, timing restrictions, and eligibility criteria. International credits should not be embedded as a structural element of national targets, but used only where justified, ideally through EU-level procurement.
3. **Adopt separate national targets for LULUCF and permanent removals.** LULUCF and permanent CDR should not be merged into a single removals target. They differ too much in permanence, risk profile, and function. Separate targets improve transparency, avoid harmful substitution, and create clearer investment signals for scaling different solutions.
4. **Allocate permanent CDR responsibility mainly by capacity to act, while enabling cost-effective cross-border delivery.** National responsibility for pCDR should be distributed primarily based on financial capacity, not CDR potential alone. In turn, cost-effectiveness should shape delivery, allowing projects to emerge where geology and infrastructure make deployment most feasible, supported by trading and cross-border investment.
5. **Keep the CRCF focused on high-integrity removals and embed it in a broader demand-side policy framework**. The CRCF should remain a certification framework for robust carbon removals, not expand into a broad mitigation tool for agricultural non-CO_2 reductions. Its effectiveness depends on being linked to compliance demand, appropriate carbon pricing for biogenic emissions, and clear separation between removals, reductions, and avoided emissions.

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INTRODUCTION

The EU has committed to reducing greenhouse gas emissions by 90% by 2040. The next challenge is how to realise this target.

The 2030 decade is decisive for achieving deep emissions reductions while scaling carbon removal to meaningful levels – delayed action would increase cumulative emissions and raise the risk of triggering irreversible climate tipping points. It would also shift disproportionate pressure onto the post-2040 period, requiring a much faster and more costly scale-up of CDR.

A well-designed national targets framework is therefore critical. Calls to ease the transition to -90% have become a central feature of the debate, but flexibility must not come at the expense of delivery. If applied too broadly, flexibility risks delaying domestic decarbonisation, enabling substitution between fundamentally different types of climate action, and weakening investment signals needed to direct private capital towards mitigation.

The key is to design flexibility that supports cost-effective delivery without substituting for domestic mitigation and carbon removal.

This policy paper complements Carbon Gap's response to the public consultation on national climate targets and flexibilities, elaborating on critical elements of the framework from a carbon removal perspective.

The document aims to answer the following questions:

- How should the EU's post-2030 national targets architecture be structured so that flexibility mechanisms support delivery of CDR without weakening national accountability and domestic action?
- How can responsibility for delivering CDR be distributed across countries in a way that respects national circumstances but also promotes ambition enables cost-effective delivery?
- How should the CRCF Regulation be further designed and integrated into the broader EU climate policy framework to make sure that certification translates into real-world high-quality CDR delivery at scale?

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1. TARGETS AND FLEXIBILITIES ARCHITECTURE

1.1. Building national targets should remain the core of the framework

Legally binding obligations ensure accountability and delivery, whereas indicative approaches have often led to weaker outcomes.

This accountability becomes more critical in the context of the 2040 target, where delayed domestic action would undermine the EU's ability to meet the target and challenge long-term climate neutrality goals. **In a system with expanding flexibilities, binding targets are also essential to maintain a consistent level of effort across Member States and prevent overreliance on external or uncertain pathways.**

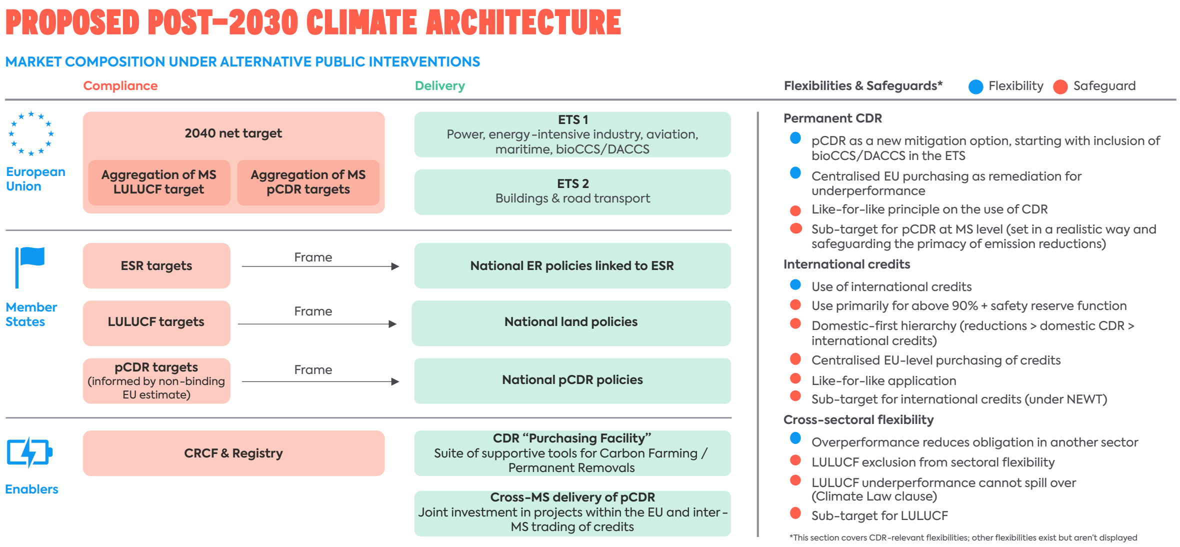

***Figure 1**: Proposed 2040 climate architecture. The structure distinguishes between compliance and delivery, with national targets defining Member State responsibility, and EU and national instruments enabling delivery. Flexibilities operate as a separate layer, subject to safeguards, and do not alter the underlying allocation of responsibility.*

1.2. The choice of architecture shapes clarity, flexibility, and integrity

Several approaches are under consideration for organising post-2030 national climate targets. The key difference is how emissions reductions and removals are linked, and how much flexibility Member States have in shifting efforts across them.

The first approach builds on the existing pillar-based structure, maintaining separate instruments such as the Effort Sharing Regulation and LULUCF Regulation. This model preserves continuity and enables a smoother transition beyond Fit for 55, allowing Member States to build on established instruments and administrative policies. It also provides for clearer, more transparent governance by keeping different types of climate action separate. On balance, this structure offers the most robust foundation for the post-2030 framework.

The second approach is based on national economy-wide targets (NEWT), which combine all mitigation efforts under a single net target for each Member State. This model simplifies the overall structure and may offer more flexibility in how targets are achieved. At the same time, it creates risks: different types of action could be treated as interchangeable, and action in harder-to-debarbonise or more politically sensitive sectors, like transport or agriculture, could be delayed. Even if a Member State meets its 2040 target by over-delivering elsewhere, excessive flexibility may defer necessary action in these sectors, making 2050 targets harder and more costly to achieve.

The NEWT approach could be considered, but only with careful design, including safeguards to limit such substitution and ensure that flexibility does not come at the expense of delivery. In this context, emissions covered by ETS1 should remain outside the scope of national targets.

The third option involves partial integration, for instance by combining land use and agricultural emissions into an Agriculture, Forestry and Other Land Use (AFOLU target). While this reflects the links between these sectors, it makes it harder to draw clear boundaries between emissions and removals and complicates accounting and compliance. Given these challenges, it is unlikely to provide a workable basis for the 2040 framework.

A pillar-based approach is preferred, while a NEWT framework should only be considered under strict safeguards to prevent substitution and ensure environmental integrity.Regardless of the precise design, two guardrails should apply to the overall architecture:

- **Targets must be structured around three distinct components: emissions reductions, land-based removals, and pCDR.** This distinction preserves environmental integrity and avoids substituting fundamentally different mitigation outcomes. Separate targets would also help reduce competition between emissions reductions and removals for public funding, given their different cost profiles and stages of maturity.

- **LULUCF should remain largely excluded from cross-sectoral flexibility mechanisms, given its specific risk profile and vulnerability to reversal.** While the current Climate Law allows the use of surplus natural removals to compensate for emissions in other sectors, enabling the use of temporary biogenic removals to compensate for fossil emissions is inconsistent with the fundamentally different nature of these emissions.

1.3. Flexibility should enable delivery without weakening domestic action

Beyond the overall structure of targets, the design of flexibility mechanisms plays a central role in how the framework functions in practice. If designed right, flexibility instruments can help Member States deliver on targets at lower costs. If applied too broadly or without sufficient safeguards, they can weaken domestic action and reduce overall ambition.

Flexibilities should therefore be targeted, limited in scope, and conditional on robust safeguards. As shown in Figure 1, they should function as a complementary mechanism, activated under defined conditions, like investment or policy KPIs, rather than forming part of the core design.

1.4. Different flexibility types require distinct rules and safeguards

International carbon credits design should ensure integrity and strategic climate impact

The use of international credits should remain a complementary tool, not a structural element of EU's mitigation. The Commission's impact assessment should therefore model the full 90% domestic emissions reduction target, as set out in the European Climate Law. Assuming a lower level of domestic action (i.e., 85%) and relying on credits to close the gap would effectively institutionalise their use and weaken incentives for domestic mitigation.

Not all Member States may choose to use international credits, and a uniform obligation could artificially inflate demand. Especially since there is still a lot of uncertainty around the availability, cost, and integrity of credits at the scale implied by a 5% contribution, as explored in Carbon Gap's International Credits Calculator.

A more robust approach is to plan for full domestic delivery of the 90% target, while allowing credits to play a limited and targeted role. This strategy could include supporting ambition beyond 90% or acting as a safety buffer in case of unforeseen domestic shortfalls.

Where used, international credits are best procured at EU level and redistributed to Member States, subject to strict volume limits and the application of the Like-for-Like Principle.[1]

Cross-sectoral flexibility design should preserve sectoral decarbonisation pathways

Cross-sectoral flexibility means that overperformance in one sector of the economy may be used to compensate for underperformance in another sector. However, this exchange should be limited to comparable types of mitigation. Fossil emissions reductions may compensate for fossil emissions in other sectors but should not be substituted with biogenic emissions or removals.

Such flexibility should be carefully constrained to avoid free-riding and to ensure that frontrunner sectors are not penalised.

A two-tier target can manage uncertainty in the LULUCF sector while incentivising domestic efforts

Applying a two-tier targets structure, combining a binding core target with a more flexible top-up component, risks adding complexity to the overall national target framework. Considering that flexibility mechanisms are already expected to operate across the system, introducing a core and a top-up target raises fundamental design questions that are not clearly defined.

It is unclear how the two components would interact; would the core target need to be met strictly, or would it retain existing flexibilities such as banking and borrowing? Similarly, it is uncertain which flexibilities would apply to the top-up component and under what conditions. For instance, would the additional target be limited to the use of

[1] See Carbon Gap's response to the public consultation on the possible use of international carbon credits: https://carbongap.org/national-targets-and-flexibilities/

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international credits or would it also benefit from more fungibility between emissions reductions and removals?

Without clear answers, the two-tier structure risks creating ambiguity around compliance, weakening the predictability of the system, and reopening questions about the extent and role of flexibility that the framework is meant to constrain.

The use of this approach may potentially be justified for LULUCF. Land-based removals are subject to natural variability including wildfires, droughts, and pest outbreaks, and the carbon benefits of policy action often take time to materialise. Land management interventions can take years to deliver measurable carbon benefits, and further time before those benefits appear in national inventories. In this context, a differentiated approach could distinguish between a core level of performance based on domestic policies and a higher level of ambition.

Section 2 below further explores this option and potential LULUCF target levels for 2040.

1.5. Safeguards are needed to limit fungibility and preserve environmental integrity

A consistent set of safeguards is needed across all design options to maintain environmental integrity. These principles apply across the architecture and flexibility tools described above:

- Maintain a clear separation between emissions reductions, temporary removals, and permanent removals;
- Limit fungibility between different types of climate action;
- Prioritise domestic climate action over international credits;
- Set strict conditional and volume limits on the use of flexibilities;
- Apply the Like-for-Like Principle where substitution is allowed;
- Strengthen transparency through robust monitoring and registry systems.

Together, these safeguards ensure that flexibility supports delivery without undermining the 2040 target.

2. HOW NATIONAL CDR TARGETS SHOULD BE DEFINED AND ALLOCATED

2.1. Defining LULUCF and permanent CDR targets requires different logics

This section examines how national carbon removal targets could be defined and distributed across Member States. It distinguishes between allocation and delivery logics and explores how different principles shape responsibility and implementation.

At present, there are no EU-wide targets for pCDR and LULUCF for 2040. To illustrate how different allocation and delivery approaches could function, indicative EU-level volumes are used. Based on scenario modelling presented in Carbon Gap's policy brief Divide to Deliver, achieving the 2040 climate target domestically may require approximately 100–280 Mt CO_2/year of pCDR and around 350 Mt CO_2/year from the land sector. These values are used as reference points only and do not affect the underlying design analysis.

Additional insights are drawn from Carbon Gap's work on effort allocation approaches, including the use of capacity to act and complementary principles such as historical responsibility, population size, and biophysical potential. These findings inform the discussion below on how Member State responsibility could be distributed.

This analysis focuses on the implications of defining LULUCF and pCDR targets separately.

2.2. LULUCF targets should reflect biophysical reality while encouraging domestic efforts to improve the land sink

This section examines the key consideration in setting LULUCF targets for Member States. It explores two broad approaches to target allocation – based on managed land area and current sequestration performance – and considers the question of what baseline should anchor those targets over time. Each approach presents trade-offs between ambition and deliverability, and understanding these trade-offs is essential for designing a framework that is both ambitious enough to drive improvement of the EU's land sinks, and pragmatic enough to be achievable in practice.

The public consultation references allocating LULUCF targets based on each Member State's share of total EU managed land area, the rationale being that countries with larger managed land areas have greater potential, and thus responsibility, to enhance carbon sinks.

This approach has practical advantages since managed land area is already reported through national greenhouse gas inventories under the UNFCCC. As such, it provides an operationally feasible basis for allocation. Additionally, this approach based on Member States' physical assets is intentionally agnostic to countries' historical performance and therefore does not reward underperformance with lower targets.

Figure 2 illustrates how such an approach could be applied to define 2040 targets by distributing an EU-wide LULUCF target across Member States according to their share of managed land.[2] Naturally, countries with larger areas of managed land, such as France, Spain, Sweden and Germany must maintain the largest land sinks according to this approach. Since land categories have differences in carbon sequestration rates, it may also be beneficial to take this into consideration when allocating LULUCF targets. Figure 2 also shows the resulting targets when the relative importance of the land categories are weighted based on their contribution to the overall sink. This consideration increases the share of targets assigned to countries with large forest areas, such as Sweden and Finland.

However, the approach of allocating LULUCF targets based on share of managed land has clear limitations and may result in targets that are not achievable in practice. For example, as shown in Figure 2, Germany – currently the EU's largest net source of emissions from the LULUCF sector at around 50 Mt CO_2e/year – would be required to shift rapidly to a sizeable net sink under this approach. Allocating targets in this way could challenge delivery at EU level and illustrates that land area is an imperfect proxy for removal capacity, particularly in contexts where forest sinks are declining.

[2] In Figure 2, the total LULUCF need is 348 Mt CO_2 in 2040, using scenario modelling results from Carbon Gap's recent publication: Divide to deliver and technical analysis: https://carbongap.org/divide-to-deliver/ ; VTT modelling: https://carbongap.org/wp-content/uploads/2025/07/Supporting-methods_CDR-deployment-and-the-2040-target-modelling-in-the-EU_VTT_July-2025.pdf

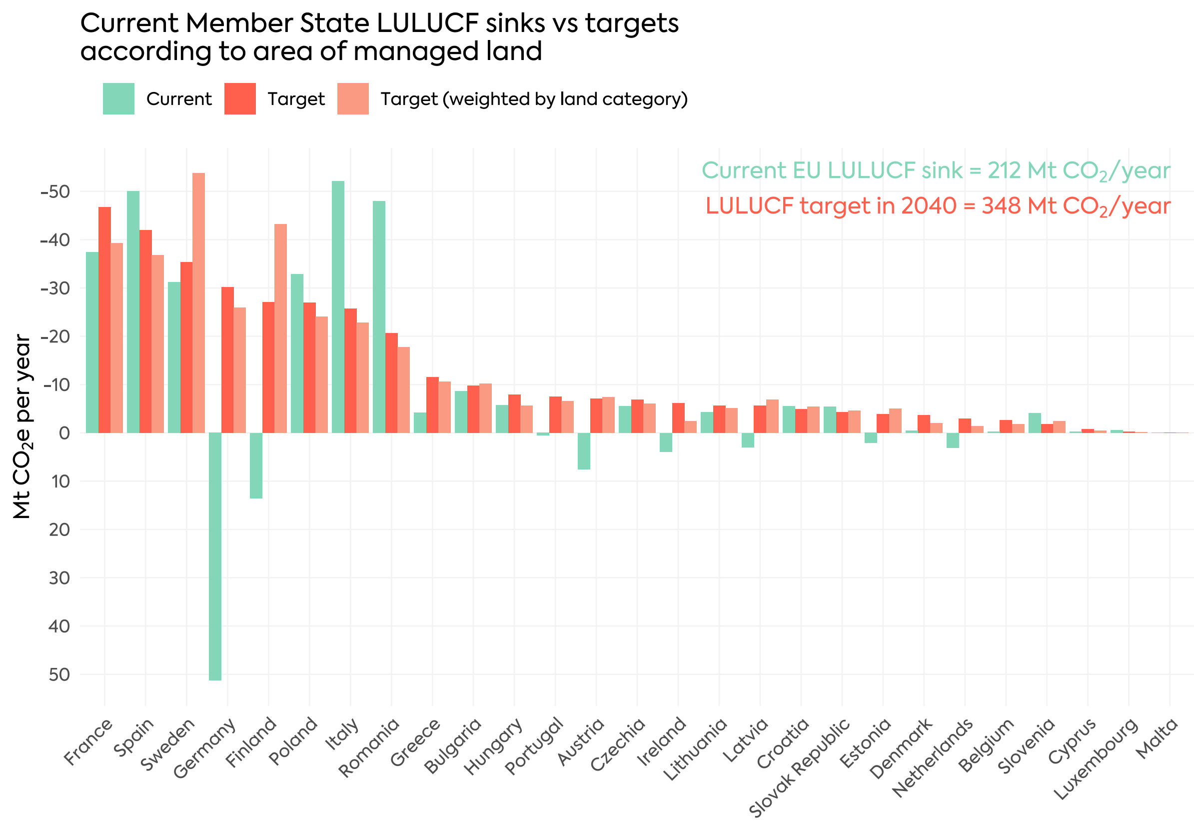

Figure 2: *Comparison of the current (2024) net emissions from LULUCF per Member State (green bars) and hypothetical LULUCF net targets for 2040 (red bars) based on allocating an EU total target to Member States according to their area of managed land, approximated using LUCAS land categories (red bars) for the latest inventory year (2022). The following LUCAS land categories are aggregated to estimate the area of managed land: woodland, cropland, grassland, shrubland, wetland and artificial land. Dark red bars indicate the Member State targets when the different land categories are weighted equally, and light red bars indicate Member State targets when land categories are weighted according to their relative importance to the overall LULUCF sink, meaning that categories like woodlands which contribute significantly to the land sink are assigned greater weight. LUCAS land categories are weighted based the relative contribution of the analogous LULUCF land categories to total EU LULUCF emissions and removals in 2019–2022. The total EU LULUCF target 348 Mt CO_2/year in 2040 is based on scenario modelling from Carbon Gap and VTT.[3] This comparison shows that certain countries would face major challenges to reach their targets (most dramatically Germany, Finland and Austria) if such an allocation approach was used.*

Recent trends reinforce this concern. The EU LULUCF sink declined by more than 30% between 2012 and 2022, largely due to developments in the forest sector, with significant variation across countries. **Yet, it can be difficult to characterise whether land sink loss in a particular Member State is due to natural causes like aging forests and climate**

[3] Divide to deliver and technical analysis: https://carbongap.org/divide-to-deliver/; VTT modelling: https://carbongap.org/wp-content/uploads/2025/07/Supporting-methods_CDR-deployment-and-the-2040-target-modelling-in-the-EU_VTT_July-2025.pdf

change related disturbances, or poor ecosystem management policies and increased harvesting.

Evidence from Germany illustrates this complexity. Germany's deteriorating LULUCF performance is often linked to natural disturbances such as droughts and pest outbreaks, with elevated harvesting largely reflecting unavoidable salvage logging in response to these disturbances rather than independent anthropogenic pressure. Yet, it is unclear whether past land management decisions – such as the prevalence of monoculture plantations and insufficient investment in ecosystem resilience – left these forests more vulnerable to such disturbances in the first place, and whether more forward-thinking stewardship strategies could have prevented or limited their impact. This raises broader questions about the extent to which 'natural' disturbances reflect underlying management failures, and how targets should account for this ambiguity. This example shows that managed land area as an allocation key can produce targets that are disconnected from what is deliverable, taking no account of the underlying conditions driving a country's performance. Ideally, there should be allowances made for countries impacted by natural disturbances, but avoidable impacts should not be used to decrease climate ambition. **Nonetheless, if Member State targets are not achievable, there is the risk that the EU-wide target will not be met, regardless of its overall level of ambition.**

Another logical starting point for setting Member State LULUCF targets would be using historical or current LULUCF capacity which both carry certain advantages and limitations. Namely, using historical emissions as a baseline may assign targets that are no longer achievable if climate-driven disturbances are becoming more frequent and severe, making targets unrealistically high.

On the other hand, as in the German example, where performance has been depressed by natural disturbances, **a snapshot of current levels could understate a country's underlying capacity and produce a baseline skewed by events in a specific period**. As a baseline, using current sequestration performance anchors targets to present-day removal capacity, making it more likely that they are attainable in practice. As a tool for target setting, it assigns targets based on what countries are achieving rather than the physical land they manage.

Figure 3 illustrates how current LULUCF performance could be used to set future targets, and that reaching EU-level targets depends on Member States' ability to increase their sinks within the policy timeframe. The plotted line indicates the maximum % growth required from individual Member States (y-axis) to reach a given EU-wide LULUCF target (x-axis). In this allocation approach, the percentage improvement assigned to each Member State is proportional to its current sink intensity — defined as its LULUCF performance relative to managed land area. Countries with weak sink intensity are assigned a higher required improvement, up to the maximum, while those with stronger sink intensity relative to their land area are asked to contribute less. As ambition for the EU LULUCF sink increases, the required Member State improvements grow rapidly. This analysis provides insights into what could be achievable in EU and Member State-LULUCF targets and should be complemented by assumptions about the future capacity and rate of potential development of the land sink in the EU considering economic demands and climate change impacts.

To reach an EU target of 250 Mt CO_2/year, Member States would be required to improve their LULUCF sink by up to around 23% from current levels (Figure 3). As shown in Figure 4, reaching this target would require improvements across essentially all Member States, including a reduction in Germany's LULUCF emissions of over 10 Mt CO_2/year. **Reaching a more ambitious EU LULUCF target closer to 350 Mt CO_2 would require some Member State to improve by more than 80%, raising serious questions about feasibility within the 2040 timeframe (Figure 3)**.

Although using current sequestration performance to set future targets could help ensure targets are grounded in what countries can feasibly deliver, this method carries its own risks, particularly in cases where underperformance is driven by poor management practices rather than unavoidable exogenous factors. In this way, anchoring targets in current baselines therefore could lock in those practices instead of driving improvement.

Member State LULUCF targets based on current performance should constrain possible allocation solutions by economic and environmental feasibility, meanwhile maintain ambition.

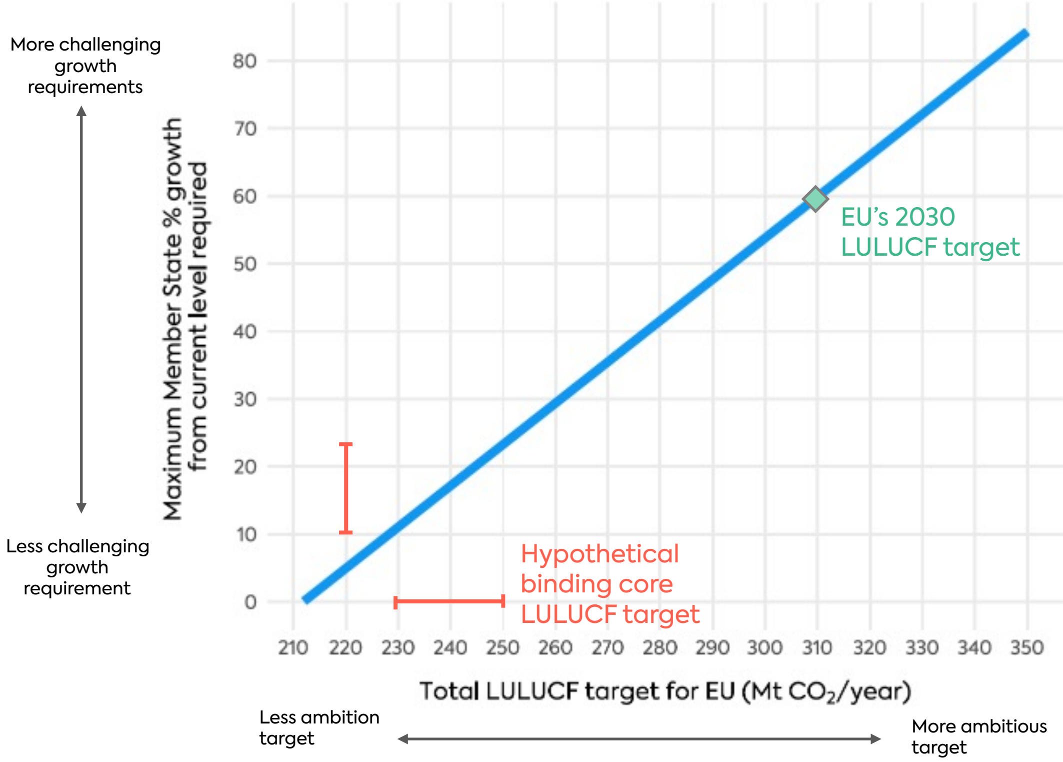

***Figure 3**: An Illustration of how to design Member State LULUCF targets based on a chosen total EU target (x-axis) and an assumed maximum % growth for the individual Member States from their current sink levels (y-axis). The % growth is assigned to Member States according to their current sink intensity, defined as each country's current LULUCF emissions relative to its area of managed land; countries with weak sink intensity are assigned a % growth closer to the maximum value, whereas countries which currently have strong sink intensity are required to improve their sink less. In other words, the maximum % shown reflects the improvement required of the worst-performing country according to their sink intensity (in this case Germany), with all other Member States improving by a proportionally smaller amount according to their relative sink intensity score. We here indicate the combination of EU LULUCF targets (230-250 Mt CO_2/year) and maximum Member State % improvement (10-23%) which could be used to define core (legally binding) LULUCF targets for Member States. We also show the EU's LULUCF target for 2030 (310 Mt CO_2/year) which could be used to define ambitious Member State targets that unlock certain incentives.*

Target-setting must therefore balance ambition with deliverability, a tension that is reflected in the two allocation approaches. Overly ambitious targets risk non-delivery and increased reliance on external flexibility measures such as international credits. At the same time, insufficient ambition risks locking in the current decline of the EU land sink and rewarding poor performance.

One way to potentially manage this trade-off is through a two-tier LULUCF structure. A binding core target, set at a feasible level based on current performance, would define the minimum level of domestic delivery. At this level, flexibility would act as a narrow relief valve for strictly limited exogenous factors such as natural disturbances, demonstrated through MRV. Example mechanisms at this point could include banking and borrowing between years within a budget period.

A second, higher overall target would represent additional ambition, and the fulfilment of such ambitious targets could be tied to broader incentive-based flexibilities unlocked through verifiable policies and measures. For example, KPI-linked funding and transfer or banking of surplus removals between Member States could be designed to reward genuine ambition and policy effort rather than compensate for shortfalls, provided that these incentives do not undermine applying the Like-for-Like Principle to balance emissions with matching removals.

Illustratively, **the core Member State targets could be based on an EU target in the range of 230–250 Mt CO_2**, requiring the realistic but ambitious scale up from countries' current levels (see Figures 3 & 4). The higher ambition level could be based on an EU LULUCF target around 310 Mt CO_2, broadly aligned with existing 2030 commitments, and could draw on more idealised allocation, for example based on countries physical resources reflected through their share of managed land.

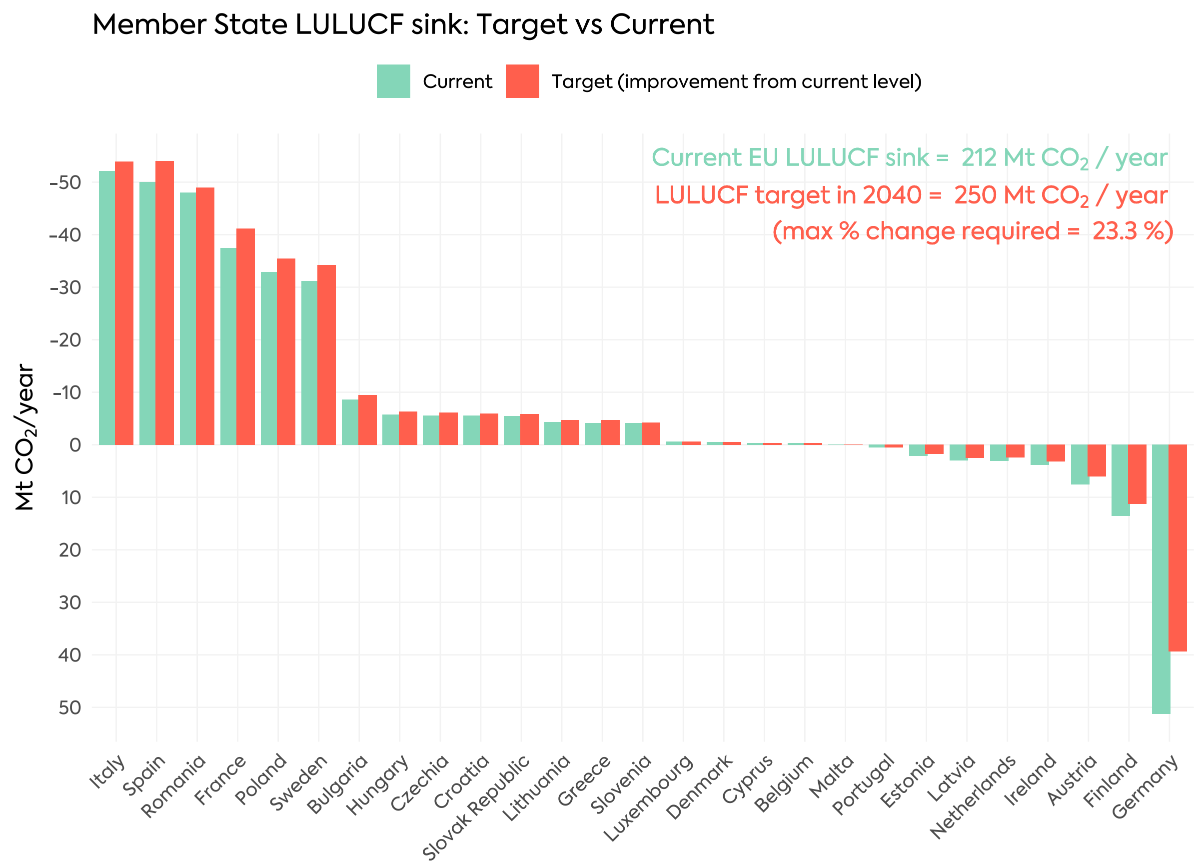

***Figure 4**: Comparison of the current (2024) net emissions from LULUCF per Member State (green bars) and hypothetical LULUCF net targets for 2040 (red bars) assuming a total EU LULUCF target of 250 Mt CO_2/year and requiring individual Member States to grow their current LULUCF sink. Each Member State's target is determined by improving their current sink performance by a percentage proportional to their sink intensity score, defined as their current LULUCF performance relative to their managed land area. To reach the set EU target of 250 Mt CO_2/year, the worst-performing Member State (in this case Germany) is required to improve by 23.3%, with all other Member States improving by proportionally less according to their relative sink intensity. Countries are ordered by the size of their current LULUCF sink, from largest net sink (Italy) to largest net source (Germany).*

Comparison with Carbon Gap's Carbon Removal Readiness Assessments

The allocation and baseline approaches discussed above all rely, to varying degrees, on past or current performance as a proxy for what Member States can deliver. To offer a complementary forward-looking perspective on whether Member States have the domestic capacity to fulfil such LULUCF targets, we highlight findings from Carbon Gap's Country Removal Readiness Assessments (CRRA). This series of in-depth assessments, thus far covering France, Norway, Finland, Germany, Italy, and Spain, provides country-level insights into the technical, economic, and institutional potential for each country to develop CDR.

The CRRA sheds light on what Member States could realistically deliver in their domestic LULUCF targets. For example, Germany's projected temporary CDR capacity in 2035 and 2045 is higher than the targets it would be assigned under different allocation approaches presented above, suggesting that more ambitious LULUCF targets may be achievable (Figure 5). A similar pattern appears for Italy; despite relatively high target levels, its projected capacity could meet or exceed them, even in the near term (Figure 6). **This example confirms that setting targets based only on current performance may underestimate future potential**.

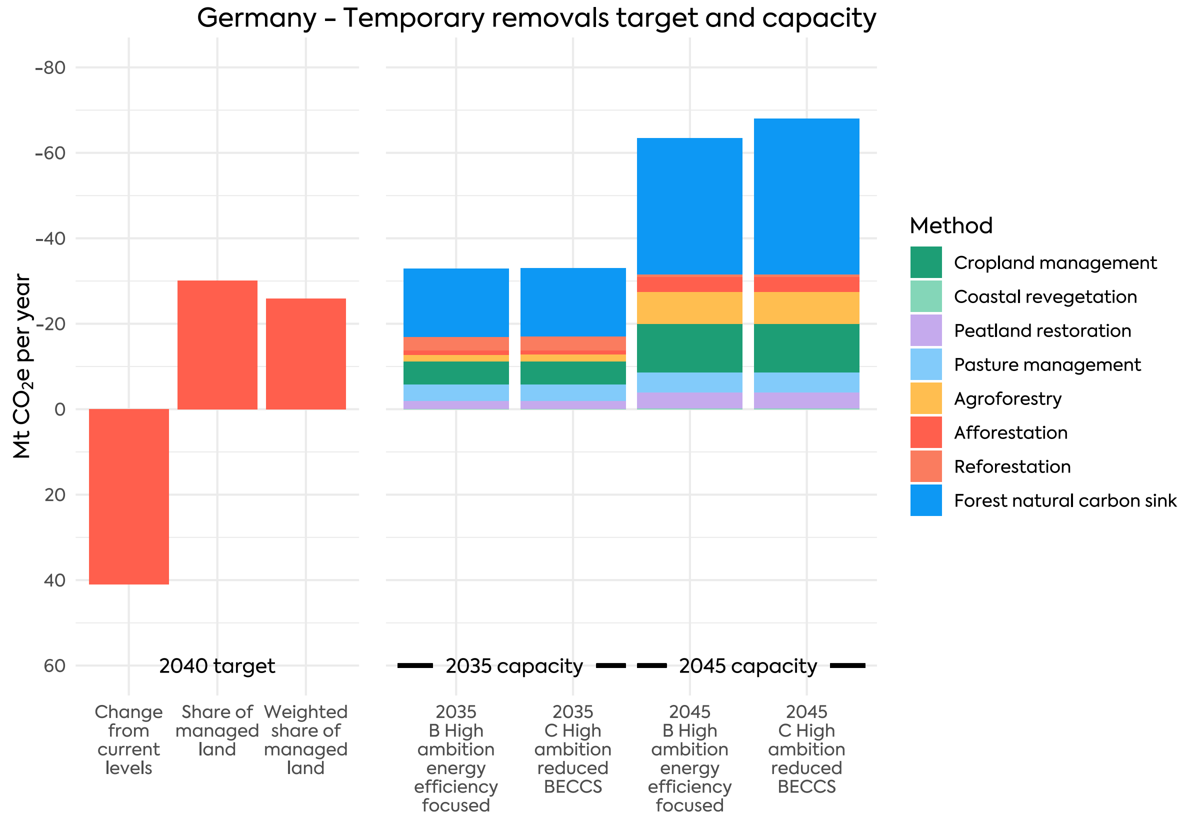

***Figure 5**: Comparison of Germany hypothetical LULUCF targets and removal capacity (Mt CO_2e/year). The three left bars show Germany's allocated share of the EU LULUCF target under different allocation approaches. "Change from current levels" reflects Germany's required improvement from current LULUCF performance, assuming a total EU LULUCF target of 250 Mt CO_2/year. "Share of managed land" and "Weighted share of managed land" allocate Germany's share based on its proportion of EU managed land area (unweighted and weighted by land types according to their relative contribution to the LULUCF sink), assuming a total EU LULUCF target of ~350 Mt CO_2/year. The remaining bars show Germany's potential temporary CDR capacity in 2035 and 2045, drawn from the Carbon Removal Readiness Assessment for Germany Report, across two scenarios: High ambition, energy efficiency focused and High ambition, reduced BECCS.*

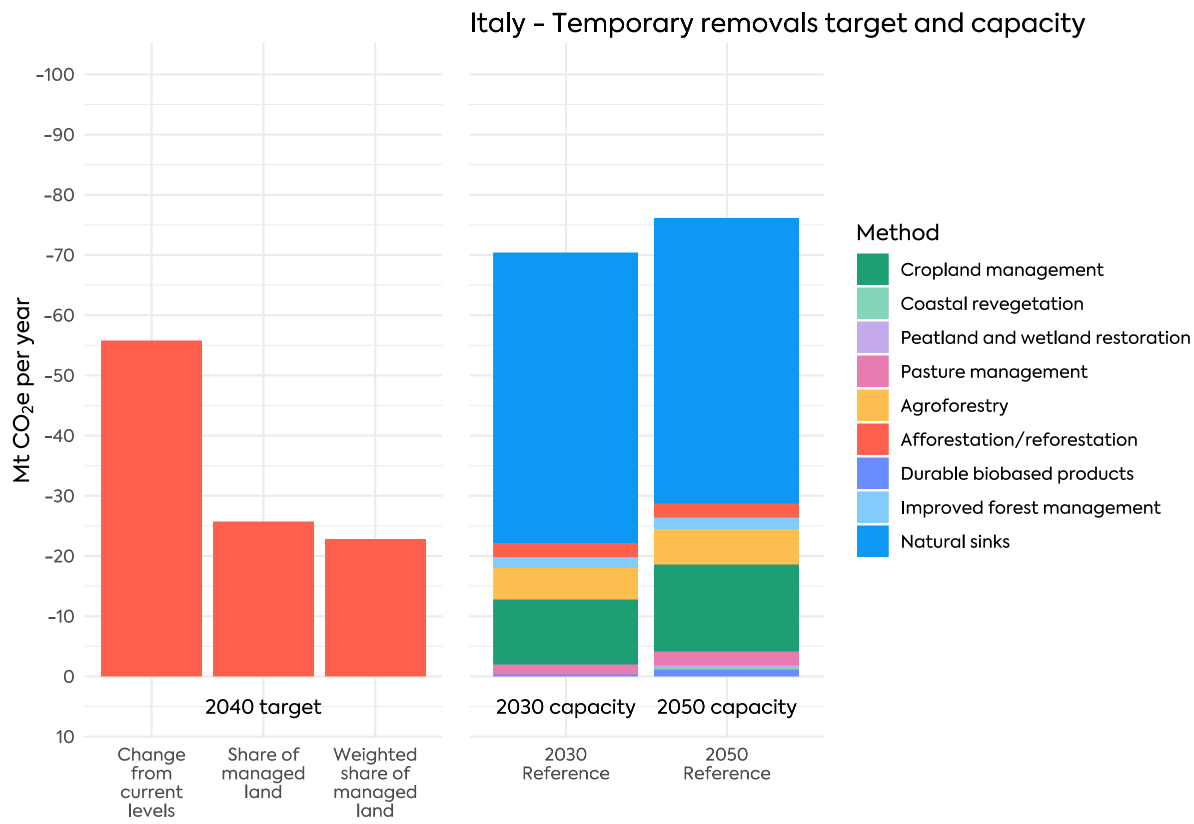

Figure 6: *Comparison of Italy's hypothetical LULUCF targets and removal capacity (Mt CO_2e/year). The three left bars show Italy's allocated share of the EU LULUCF target under different allocation approaches. "Change from current levels" reflects Italy's required improvement from current LULUCF performance, assuming a total EU LULUCF target of 250 Mt CO_2/year. "Share of managed land" and "Weighted share of managed land" allocate Italy's share based on its proportion of EU managed land area (unweighted and weighted by land types according to their relative contribution to the LULUCF sink), assuming a total EU LULUCF target of ~350 Mt CO_2/year. The remaining bars show Italy's potential temporary CDR capacity in 2030 and 2050, drawn from the Carbon Removal Readiness Assessment for Italy for the reference scenario.*

2.3. Permanent CDR targets should separate responsibility from delivery

This section examines how pCDR targets could be allocated across Member States. The principles presented in the consultation serve different functions: some relate to how responsibility is distributed, while others shape how delivery is realised in practice. These functions should be distinguished.

The current EU framework already reflects this distinction. The Effort Sharing Regulation allocates responsibility based on capacity to act, using GDP per capita as a proxy. The EU ETS delivers cost-effectiveness by allowing mitigation to occur where it is cheapest. **These principles are not interchangeable: they address different objectives, namely**

distributing responsibility on the one hand and enabling efficient delivery on the other.

Capacity to act provides one possible basis for allocating responsibility, as it reflects Member States' ability to bear the costs of deployment. This principle is particularly relevant for pCDR given the expected investment needs, technological uncertainty, and uneven readiness across countries.

Cost-effectiveness, by contrast, is more closely linked to delivery. It reflects where removals can be delivered most efficiently rather than who should be responsible for ensuring they are delivered. Applying it directly as an allocation principle could lead to a concentration of obligations in a limited number of Member States, raising questions around fairness and political feasibility.

A similar distinction applies to biophysical capacity and infrastructure availability. These factors help explain where pCDR is likely to be deployed, but do not in themselves provide a clear basis for allocating responsibility.

Finally, the overall scale of pCDR is linked to residual emissions. In principle, these could provide a direct basis for determining how much removal capacity is required. However, current projections are not sufficiently consistent or comparable across Member States to serve as a reliable allocation key for 2040. As such, residual emissions remain a useful reference point but are difficult to operationalise in practice.

These considerations point to a central question: which principle should ultimately guide national responsibility for pCDR?

2.4. National permanent CDR responsibility should be allocated based on capacity to act

In the EU context, capacity to act provides the most optimal basis for allocating pCDR responsibility across Member States, particularly given the high investment costs and uneven readiness associated with deployment. The key question is how this principle can be operationalised and which economic indicators best capture countries' ability to bear these costs.

Under the ESR, capacity to act is operationalised using GDP per capita, reflecting a political choice to ensure fairness between Member States at different levels of economic development. However, this approach cannot be directly applied to pCDR.

Unlike emissions reductions, pCDR does not build on existing trajectories but requires the development of new capacity from a near-zero baseline, making the choice of allocation metric more consequential.

Different economic indicators lead to different distributional outcomes. GDP overstate domestic capacity provides a simple proxy for economic development but may overstate capacity in countries with significant foreign-owned production. By contrast, Gross National Income (GNI) provides a more accurate reflection of the resources available to Member States. By focusing on income rather than production, it better captures the financial capacity of countries to support investment in pCDR. It also aligns more closely with the underlying rationale of capacity to act, namely the overall ability to bear the costs of climate action.

A key trade-off arises between per capita and total metrics. Per capita indicators (GDP or GNI per capita) reflect relative affluence but may place a disproportionate burden on smaller, high-income Member States. Total GDP or GNI captures overall economic size but does not reflect differences in income levels within countries. For this reason, combined approaches, such as scaling total GNI by GNI per capita, can better reflect both overall capacity and relative wealth. This approach builds on the logic of the ESR, while adapting it to better reflect both overall economic capacity and differences in income levels. **In practice, the choice of metrics can significantly shift the distribution of responsibility across Member States**.

Figure 7 illustrates how the choice of metric affects the distribution of pCDR targets. Using total GNI or scaled GNI assigns the largest shares to major economies such as Germany, France, Italy, and Spain. By contrast, using GNI per capita shifts the burden to smaller, high-income countries such as Luxembourg, Ireland, and Denmark. This distinction highlights the underlying trade-off between total economic capacity and relative affluence.

Figure 8, on the other hand, applies a combined metric to distribute an indicative EU pCDR requirement of 104–278 Mt CO_2/year. Under this approach, large economies account for the majority of deployment, with Germany alone responsible for approximately 27–73 Mt CO_2 in 2040, while more than half of Member States would face targets below 5 Mt CO_2 per year.

Ranking member state CDR contributions
according to capacity to act

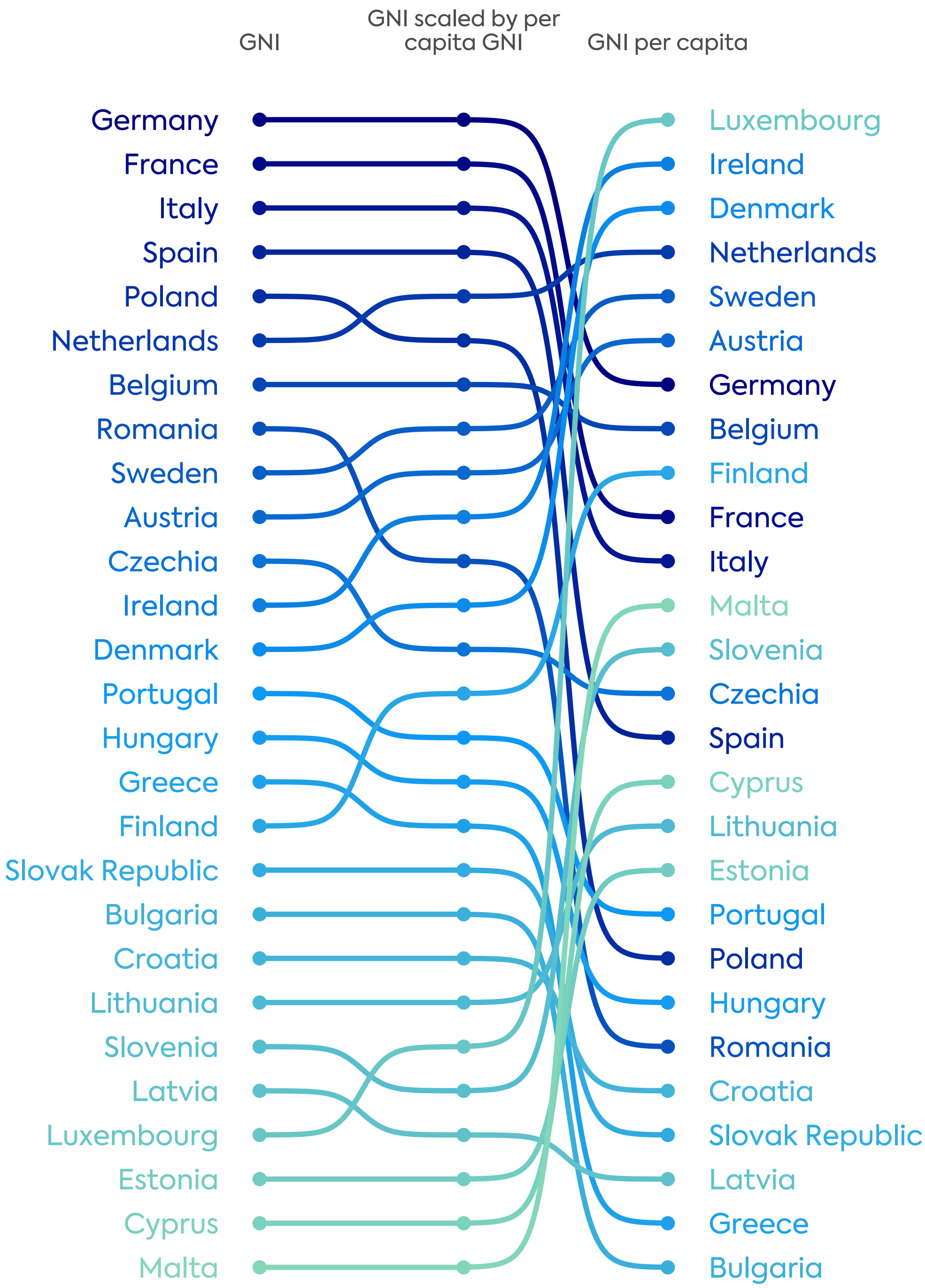

***Figure 7**: Member States' ranking based on their gross national income (GNI), GNI scaled by per capita GNI, and GNI per capita. This ranking is based on data from the World Bank – [World Development Indicators for 2024](#).*

Carbon Gap is an independent, Brussels and UK-based non-profit organisation supporting Europe's unique opportunity to lead the responsible deployment of carbon dioxide removal (CDR) to fight climate change through independent and science-led advice.

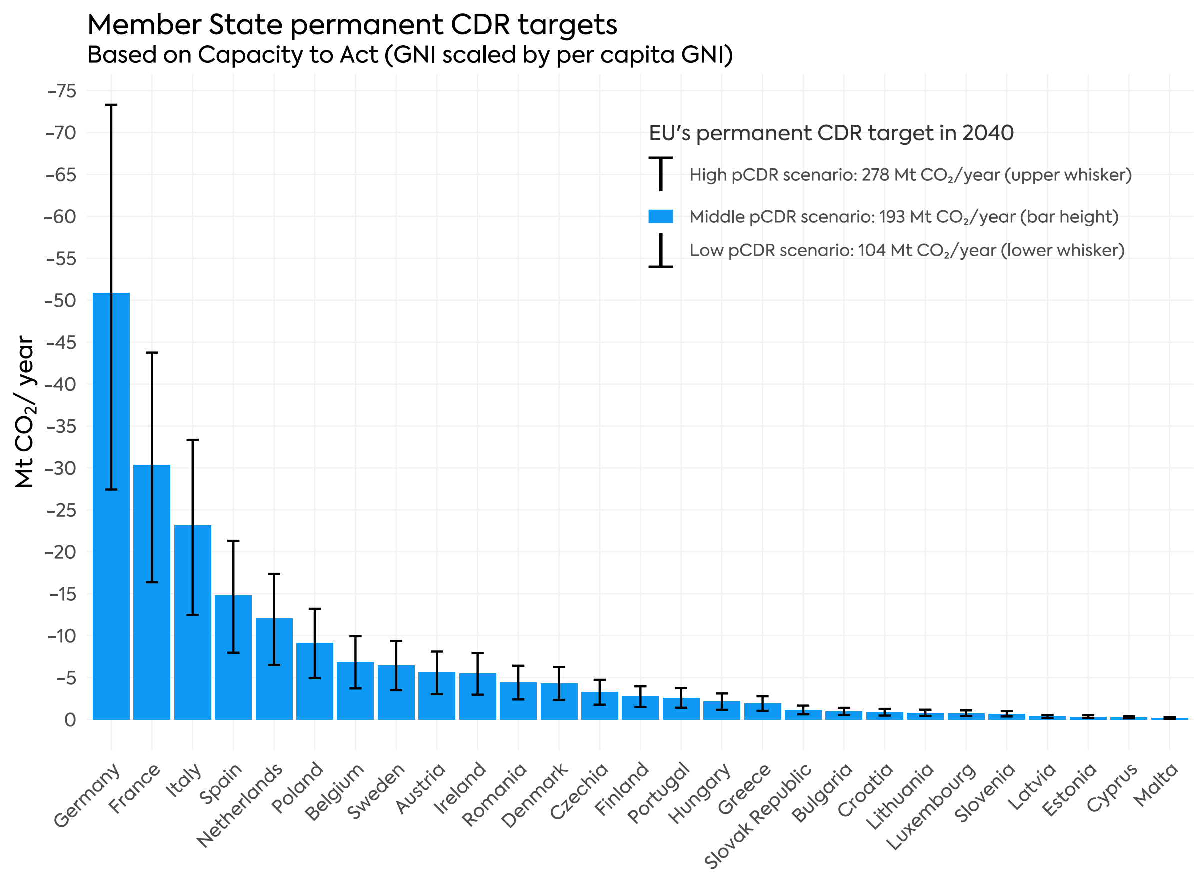

***Figure 8**: Hypothetical Member State pCDR targets based on allocating a total EU pCDR target to the individual Member States according to their GNI scaled by GNI per capita. A range (104-278 Mt CO_2/year) for the total EU is used, based on three modelled scenarios by VTT in partnership with Carbon Gap. The bar height indicates the scenario which results in an EU pCDR target of 193 Mt CO_2, and upper and lower bounds are the whiskers reflecting the scenarios where EU total targets were 278 Mt CO_2/year and 104 Mt CO_2/year, respectively.*

2.5. Other principles can inform but not replace capacity-based allocation

Historical responsibility reflects past emissions, but is best applied to the EU's total ambition

Historical responsibility is sometimes proposed as an allocation principle, based on countries' cumulative emissions. Applied to pCDR, this principle would imply that Member States with higher past emissions and hence, higher contribution to climate change, take on greater responsibility for developing removal capacity.

Figure 9 illustrates how this approach distributes pCDR obligations based on cumulative emissions from 1850 or 1990. **In practice, the resulting allocation is broadly similar to capacity-based approaches using total or scaled GNI** (Figure 7), with the same countries, namely Germany, France, Spain, Poland, Italy, and the Netherlands, consistently assigned the largest shares.

This overlap reflects the close link between historical emissions and long-term economic development. As a result, using historical responsibility instead of capacity-based metrics may have limited impact on the overall distribution of targets, despite differing normative justifications.

The principle also lacks precedent in EU internal burden-sharing and raises political challenges. It therefore offers limited added value as a primary allocation key but can serve as a reference point when assessing the overall level of EU pCDR ambition.

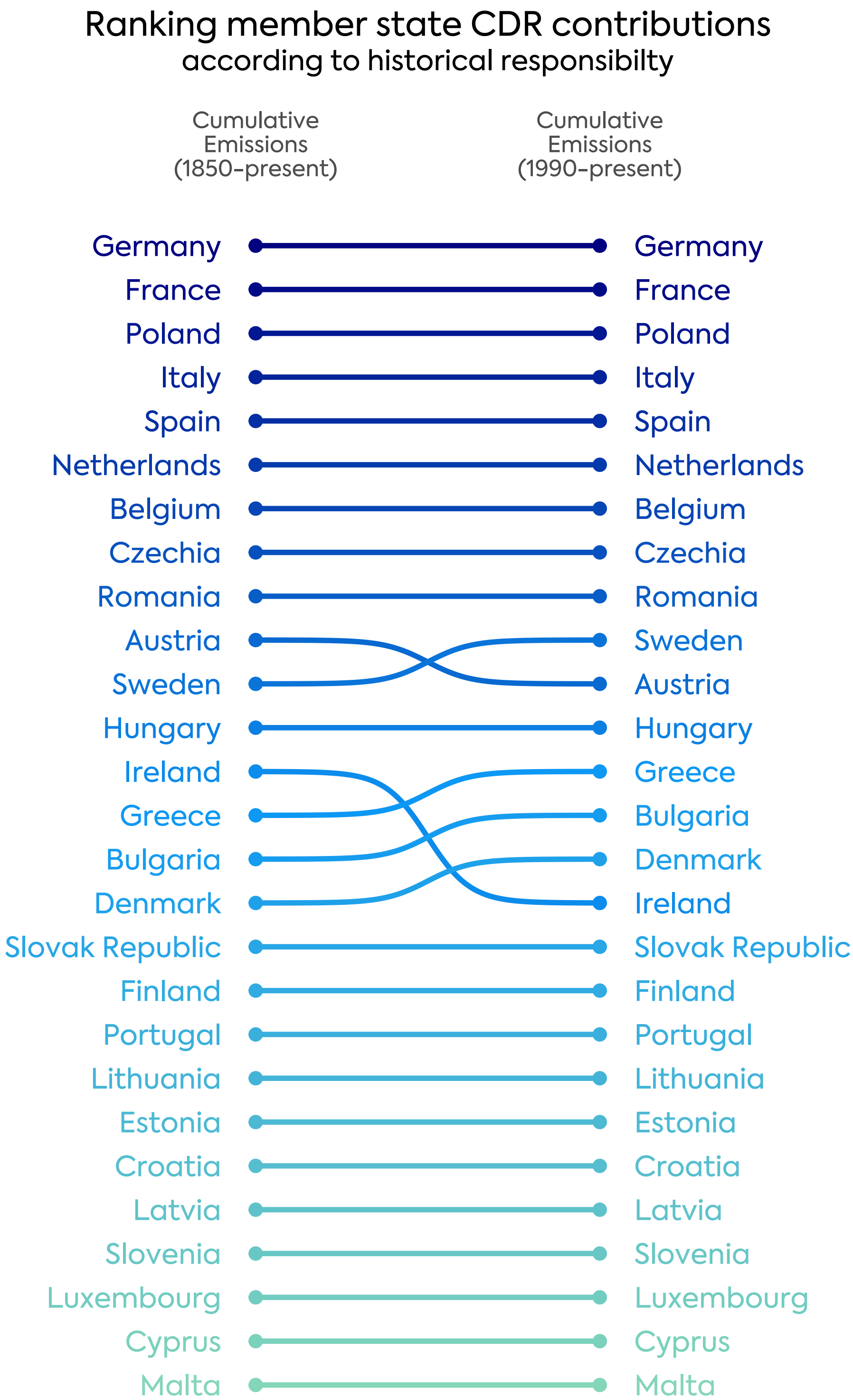

***Figure 9**: Member States' ranking based on their cumulative emissions since 1850 or 1990. This ranking is based on the PRIMAP historical emissions data set*

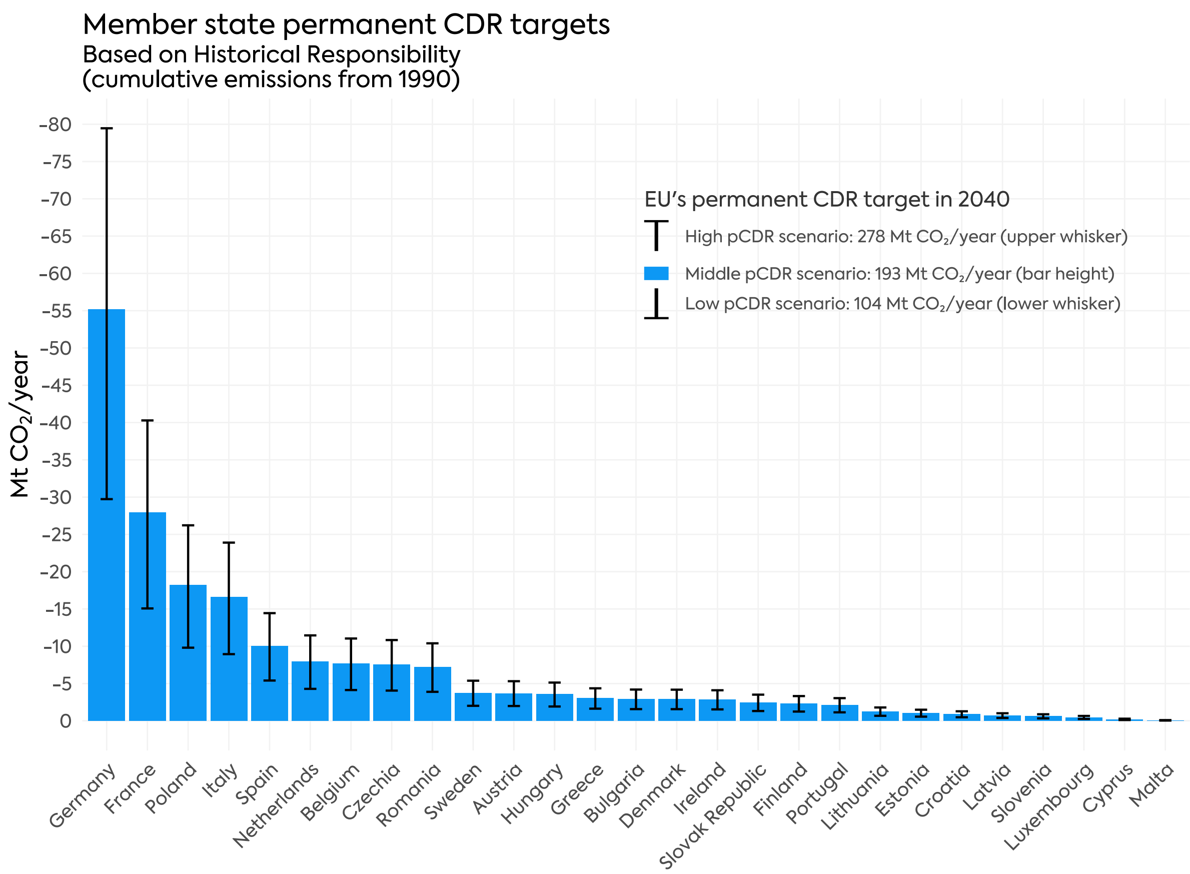

***Figure 10**: Hypothetical Member State pCDR targets based on allocating a total EU pCDR target to the individual Member States according to cumulative GHG emissions from 1990 (PRIMAP data set). A range (104-278 Mt CO_2/year) for total EU is used, based on three modelled scenarios by VTT in partnership with Carbon Gap. The bar height indicates the scenario which results in an EU pCDR target of 193 Mt CO_2, and upper and lower bounds are the whiskers reflecting the scenarios where EU total targets were 278 Mt CO_2/year and 104 Mt CO_2/year, respectively.*

Convergence guides long-term alignment, but is less suited to pCDR allocation

Convergence refers to a gradual alignment of Member State climate efforts over time, often expressed as a move towards more uniform per capita obligations. It is not a standalone allocation principle, but rather a dynamic adjustment applied to underlying metrics.

This concept is less suited to pCDR than to emissions reductions. Applied to pCDR, convergence would imply a long-term shift towards equal per capita removal obligations. This trend is difficult to reconcile with the role of pCDR in balancing residual emissions, which are not evenly distributed across Member States.

As a result, convergence does not provide a meaningful basis for aligning pCDR obligations over time.

Comparison with Carbon Gap's Carbon Removal Readiness Assessments

The previous section illustrated how pCDR responsibilities could be allocated across Member States based on capacity to act and complementary principles. To offer an additional perspective on whether Member States have the domestic capacity to fulfil such targets, we highlight findings from Carbon Gap's CRRA reports.

Comparing these two perspectives offers a useful cross-check: while the financial capacity-based approach reflects how responsibility could be fairly allocated, the CRRA sheds light on where and to what extent Member States are positioned to deliver pCDR in practice. This section assesses the extent to which a capacity-based allocation of pCDR responsibility aligns with countries' estimated delivery potential, and highlights where gaps or mismatches may emerge.

Again, taking Germany as an example, when their pCDR target is defined by their capacity to act or their historical responsibility, it outweighs their predicted future capacity (Figure 11). This finding suggests that Germany would likely need to source a share of its pCDR obligation from outside its borders. For Italy (Figure 12), its projected long-term capacity in 2050 is more comparable to the hypothetical 2040 pCDR targets, but in the near term it could also face challenges delivering such levels of removals domestically.

This implies that pCDR obligations cannot always be fulfilled domestically, even in higher-capacity Member States, and points to the need for cross-border cooperation to align responsibility with cost-effective delivery.

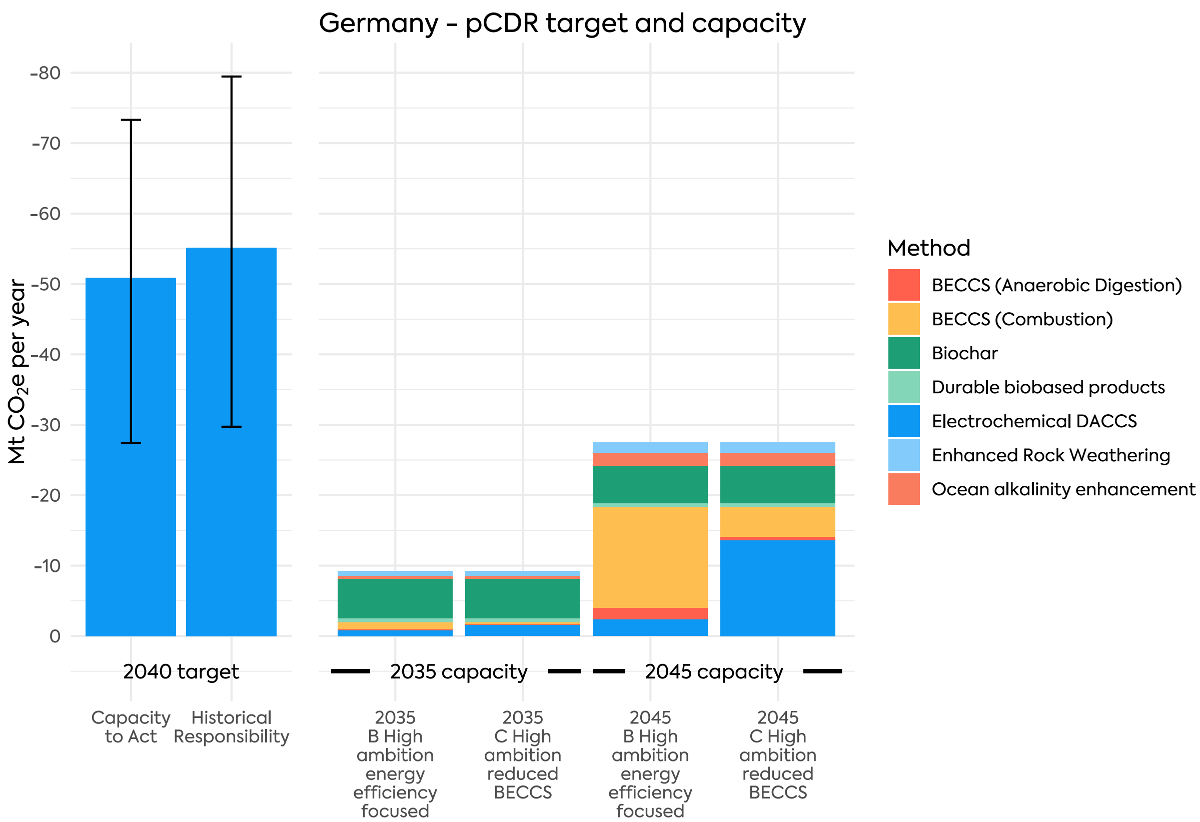

***Figure 11**: Comparison of Germany pCDR targets and capacity (Mt CO_2e/year). The two left bars show Germany's allocated share of the EU pCDR target under two allocation principles — Capacity to Act and Historical Responsibility — where this EU total target is derived from scenario modelling by Carbon Gap and VTT. The bar height reflects the central estimate corresponding to a total EU pCDR target of 193 Mt CO_2/year, while whiskers indicate the upper and lower bounds corresponding to total EU targets of 278 Mt CO_2/year and 104 Mt CO_2/year, respectively. The remaining bars show Germany's potential permanent CDR capacity in 2035 and 2045, drawn from the Carbon Removal Readiness Assessment Report for Germany, across two scenarios: High ambition, energy efficiency focused; High ambition, reduced BECCS.*

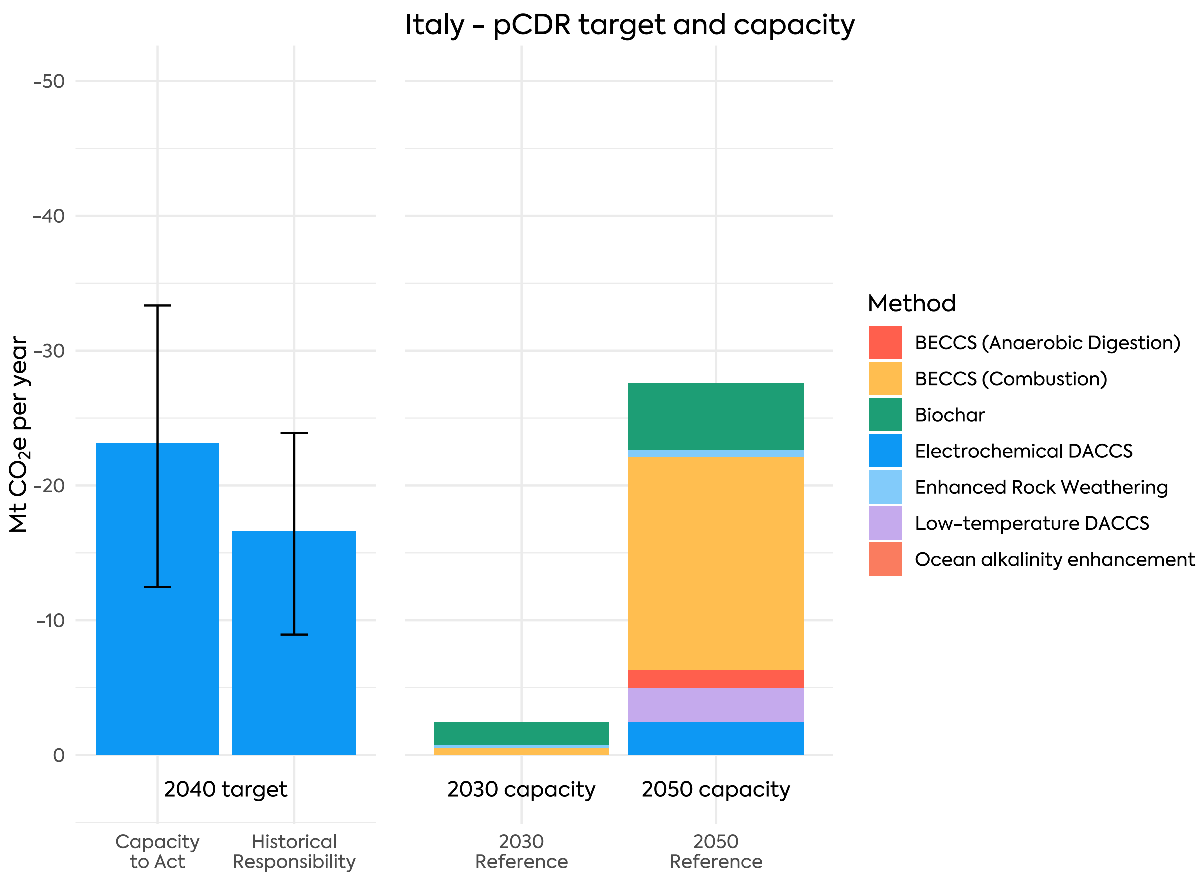

***Figure 12**: Comparison of Italy pCDR targets and capacity (Mt CO_2e/year). The two left bars show Italy's allocated share of the EU pCDR target under two allocation principles — Capacity to Act and Historical Responsibility — where this EU total target is derived from scenario modelling by Carbon Gap and VTT. The bar height reflects the central estimate corresponding to a total EU pCDR target of 193 Mt CO_2/year, while whiskers indicate the upper and lower bounds corresponding to total EU targets of 278 Mt CO_2/year and 104 Mt CO_2/year, respectively. The remaining bars show Italy's potential permanent CDR capacity in 2030 and 2040, drawn from the Carbon Removal Readiness Assessment for Italy, reference scenarios.*

2.6. Delivery will concentrate geographically and requires cooperation mechanisms

Once responsibility is defined, a separate question arises: where and how should pCDR be delivered in practice?

Cost-effectiveness allows climate mitigation to be delivered at the lowest total system cost by prioritising cheaper options first and moving progressively to more expensive measures. In this logic, each tonne of mitigation, whether from emissions reductions or CDR, is treated as interchangeable, with pCDR deployed once abatement in hard-to-decarbonise sectors becomes more costly.

Cost-effectiveness is therefore a delivery logic, not an allocation principle: it determines where and how mitigation is delivered most efficiently, rather than how responsibility should be distributed across Member States.

This principle is particularly relevant for pCDR. Unlike emissions reductions, which can be pursued across all Member States, **pCDR depends on conditions that are unevenly distributed across the EU**, including access to geological storage, CO_2 transport infrastructure, industrial clusters, biomass, and low-carbon energy. As a result, the lowest-cost opportunities would be concentrated in specific locations, and deployment would be likely to cluster accordingly.

If delivery follows cost-effectiveness, location becomes central. Biophysical capacity and infrastructure availability determine where pCDR can be deployed at scale and at reasonable cost, and therefore where investment is likely to flow.

These patterns are already visible. Member States' domestic biophysical capacity for nature-based and permanent removals varies considerably across the EU, with countries such as Spain, Germany, France, Italy, and Poland ranking among Member States with the highest capacity (Figure 13), suggesting these countries are well-positioned to take on greater CDR ambition within any future EU allocation framework. Additionally, as a snapshot of the Clean Air Task Force European CCS infrastructure map (Figure 14), shows, existing and planned CO_2 infrastructure is concentrated around the North Sea basin, which is emerging as an early deployment hub.

Importantly, these factors should guide delivery, not responsibility. A country with favourable geology or resource availability should not automatically be assigned higher CDR targets. Doing so would concentrate responsibility in a small number of Member States based on natural endowments, rather than on fairness or capacity to act.

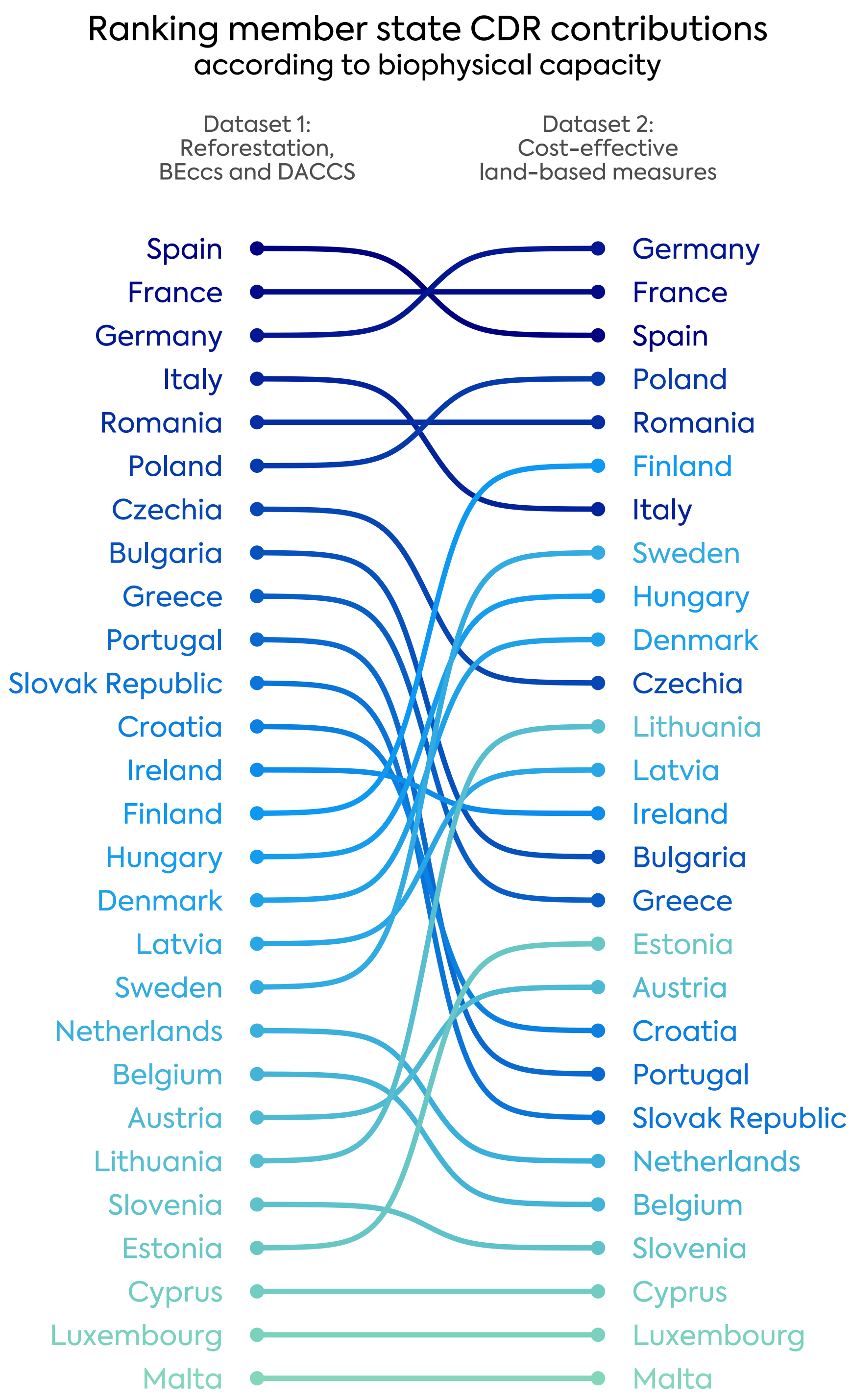

***Figure 13**: Country rankings reflecting each Member State's domestic biophysical potential for carbon removal. Dataset 1 (Reforestation, BECCS, and DACCS) captures a country's potential for CDR through reforestation, BECCS, and DACCS, calculated as the most limiting factor between estimated removal and storage volumes using central nominal estimates. Dataset 2 (Cost-effective land-based measures) reflects the average annual climate mitigation potential of a suite of land-based measures available at up to \$100/tonne CO_2e, encompassing conservation, restoration, improved land management, soil carbon sequestration, and biochar. While both datasets capture natural domestic removal potential, Dataset 2 emphasises protection and storage of carbon in living biomass and*

soils, whereas Dataset 1 additionally includes the potential of novel CDR methods to permanently store carbon through geological injection.

Instead, these conditions help indicate where pCDR is most likely to scale first and where delivery clusters are likely to emerge. **Some Member States will therefore be better placed to host projects, while others may contribute through financing, cross-border investment, or credit acquisition**. As such, the Clean Air Task Force infrastructure map offers an indication of where projects can realistically be deployed by 2040.

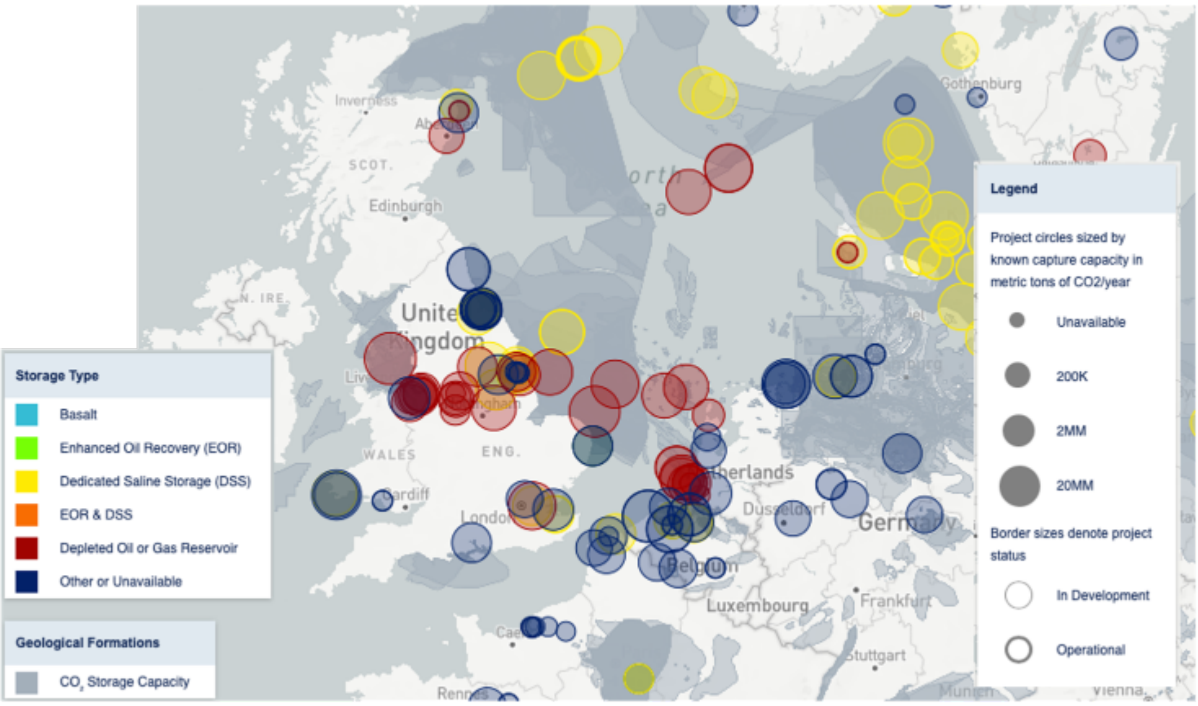

***Figure 14**: A map of Europe's carbon capture and storage projects, filtered by storage type. The concentration of projects illustrates how CCS/CDR clusters naturally emerge in regions with favourable geographical conditions, such as high-quality geological storage in the North Sea basin, or in areas with a high concentration of industrial activity, such as the Port of Rotterdam. Please see the Clean Air Task Force European CCS infrastructure map for more information.*

This distribution of natural and financial resources creates the basis for a system of cooperation in which pCDR is delivered where it is most cost-effective, while other Member States access these outcomes through trading or investment. In practice, this means that delivery patterns will reflect where projects can be developed most readily, rather than a predefined distribution of effort across countries. Given the time needed to build CO_2 transport and storage infrastructure, **delivery by 2040 will largely reflect what is already in place or being developed over the next few years, with certain regions emerging as early hubs for deployment**.

Policy design needs to reflect this distinction. Notably, it should enable cross-border cooperation and investment flows towards the most cost-effective opportunities, while maintaining countries' clear accountability at national level.

Nonetheless, designing pCDR policy around cost-effective delivery introduces trade-offs that need to be managed. Concentrating deployment in a limited number of regions can create dependencies on specific infrastructure, resources, or technologies, reinforcing the need for a diversified pCDR portfolio. Moreover, a system based on cross-border delivery may create imbalances between Member States and requires strong oversight to ensure that removals are high-quality and actually delivered.

These risks don't undermine cost-effectiveness as a delivery logic, but they do require safeguards on fungibility and robust governance of cross-border cooperation.

2.7. Policy design should combine clear targets, flexibility, and safeguards

The design choices outlined above can be combined in different ways to shape the overall policy framework. Table 1 summarises the main dimensions for structuring pCDR targets, their allocation, and delivery.

Each row represents a separate design choice, with different options that can be combined into alternative policy configurations. The table is not exhaustive but provides a structured overview of the key decisions.

The highlighted elements in green reflect Carbon Gap's recommended approach, based on the policy considerations discussed in the previous sections.

Category	Choice dimension	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
1. Target architecture	1A. Level of pCDR targets	EU-only	EU target + MS targets	EU objective + MS targets	MS targets only	-	-	-
	1B. Legal nature of national targets	Binding targets (top-down allocation)	Hybrid (core binding + flexible component) (top-down allocation)	Indicative contributions (top-down allocation)	Voluntary commitments (bottom-up allocation)	-	-	-
2. Scope of obligation	Which MS have obligations?	All MS	Only high-income MS	Only high potential MS	Differentiated MS (politically negotiated)	No MS obligations; EU obligations only	-	-
3. Allocation key	How are targets allocated?	Cost-effectiveness	Capacity to pay (GDP/GNI)	Hybrid (cost + ability)	Biophysical capacity-informed	Historical responsibility	Equality	National circumstances (e.g., economic structure, industry size)
4. Delivery location	Where must pCDR be delivered?	Fully domestic delivery	Min domestic share + flexibility within EU	EU-wide (cross-border allowed)	EU-level only	EU + internationally (credits as feature, not flexibility)	-	-
5. Delivery model	In addition to national delivery, how can MS obtain pCDR for compliance? (multiple options can apply)	Domestic delivery (no external cooperation) *MS meet targets solely via domestic pCDR*	Project-based cross-border cooperation *MS can complement domestic action by financing projects in other MS and claiming agreed outputs*	Market-based trading *MS can complement domestic action by purchasing standardised pCDR units for compliance*	EU-level allocation/purchasing Central EU body procures and allocates pCDR to MS	-	-	-

Carbon Gap is an independent, Brussels and UK-based non-profit organisation supporting Europe's unique opportunity to lead the responsible deployment of carbon dioxide removal (CDR) to fight climate change through independent and science-led advice.

Category	Choice dimension	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
6. Flexibilities	6A. ER-pCDR fungibility	Strict separation	Limited substitution (caps)[4]	Full fungibility	-	-	-	-
	6B. LULUCF-pCDR fungibility	Strict separation	Limited substitution (caps)	Full fungibility	-	-	-	-
	6C. Instrumental flexibilities (several options can apply)	Banking/borrowing (time)	International credits (limited use – pCDR only)	International credits (broad use)	EU reserve/safety buffer	-	-	-
7. Flexibility access	How can MS access flexibility? (several options can apply)	Automatic access	Linked to contribution to targets	Linked to policies/measures	KPI-based (investment; infrastructure)	Conditional on mitigation performance	Conditional on land sink performance	-
8. Flexibility timing	When does flexibility becomes available?	Immediate	As soon as minimum conditions are met	Mid-period (2035)	Timed with international credits (2036)	Gradual phase-in	Only at compliance check	-
9. Compliance architecture	How is compliance assessed?	Annual trajectory	Multi-year budget (e.g., 5 years)	End-year (2040 only)	Hybrid (milestones + end-year)	-	-	-

***Table 1**: Policy choice card outlining design options for pCDR targets, delivery, and flexibilities*

[4] Certain hard to abate emissions, such as residual emissions from the EU ETS1, should be addressed via CDR and we support the linkage of pCDR with the EU ETS1. A stringent governance framework, incl. the set-up of realistic caps for CDR to substitute emissions reductions from hard-to-abate sectors via CDR will be essential. Those are best implemented via an indirect & centrally governed integration of CDR into the EU ETS1.

The following sections explore key design choices in more detail, focusing on how scope, delivery mechanisms, and flexibility can be combined to support effective and scalable pCDR deployment.

All Member States should have pCDR obligations informed by an EU-level objective

Before determining how pCDR is delivered, it is necessary to clarify the scale of deployment required. While the current Climate Law doesn't define a dedicated pCDR target, an indicative EU-wide volume for 2040, informed by the Impact Assessment, would provide a useful reference point for planning and investment. This volume would subsequently be translated into national targets.

In principle, pCDR targets could be assigned either to all Member States or to a subset. Limiting obligations to a smaller group, for example based on capacity to act, could concentrate effort where resources are greatest. However, such an approach may sit uneasily with a delivery model driven by cost-effectiveness and could risk slowing project development in regions without explicit obligations (e.g., parts Eastern and Southern Europe). **Given that all Member States will ultimately face residual emissions and that pCDR requires time to scale, a system in which all Member States have targets appears more robust** (see Table 1, Row 2). Flexibility can then be introduced in how these targets are met, rather than in whether Member States participate.

Cost-effective delivery requires cross-border cooperation, balancing domestic action with EU mechanisms

If pCDR is to be delivered in a cost-effective manner, Member States need to be able to access climate activities and benefits generated beyond their national borders. This requirement points towards a policy design that encourages cross-country cooperation, enabling Member States to meet their targets by supporting the development of projects and infrastructure in locations where deployment can occur at scale.

At the same time, domestic delivery remains an important component of the system. It supports national ownership and builds local capacity. However, as discussed in Section 4, mandating domestic delivery would risk forcing deployment in suboptimal conditions, increasing costs and potentially delaying scale-up.

Several design options can be considered to operationalise cross-border delivery of pCDR (see Table 1, Row 5). In addition to domestic delivery, which forms the basis of compliance but may not be equally cost-effective across Member States, project-based cooperation and trading offer complementary pathways.

Project-based cooperation allows Member States to support pCDR projects in other EU countries upfront, for example by financing a DACCS facility and agreeing in advance how the resulting removals will count towards their targets once delivered. Increased cooperation also helps channel investments into early capacity and supports the build-out of infrastructure and, over time, the emergence of CDR clusters. It is particularly relevant in the near term, when projects need predictable funding and coordination to get off the ground.

By contrast, trading units allows Member States to purchase pCDR after it has already been delivered, without being directly involved in the underlying project. However, if overrelied on, this approach may lead to insufficient investments in new projects, with volumes not materialising at the pace required. This delay, in turn, could increase reliance on options like international credits. For this reason, it's important that the policy design doesn't only enable purchasing of credits but creates incentives for Member States to cooperate on projects through co-investment.

EU-level delivery of pCDR, such as through centralised procurement, can offer additional coordination benefits and reduce transaction costs. At the same time, maintaining national ownership of obligations remains important. In this context, EU-level procurement may be most effective as a complementary option, functioning as a safety net to ensure that the EU as a whole delivers the required volumes.

Across these delivery options, further design questions arise regarding accounting and attribution. In particular, clear rules will be needed to determine how outcomes from jointly financed projects are allocated between Member States, ensuring environmental integrity and avoiding double counting while preserving policy simplicity.

Targeted use of flexibility mechanisms will preserve clear distinction between decarbonisation and removals

In addition to delivery pathways, further flexibility mechanisms can support implementation (see Table 1, Row 7). These may include limited use of high-integrity international credits or other institutional flexibilities, potentially phased in over time and linked to measurable progress indicators, such as infrastructure development or investment KPIs. At the same time, safeguards remain important. Notably, policy design should avoid fungibility between pCDR and emissions reductions or LULUCF, in order to preserve clear investment signals and ensure that pCDR doesn't replace decarbonisation.

2.8. Conclusion: Clear national governance, resilient LULUCF, and scalable permanent CDR underpin delivery of the 2040 target

Delivering the 2040 target requires a simple and effective governance architecture that combines binding national responsibility with well-defined flexibility. Distinguishing between emissions reductions, land-based temporary removals, and permanent removals is essential to preserve environmental integrity and provide targeted investment signals.

The LULUCF sector presents a structural challenge. The EU land sink has been declining, while many Member States' net-zero targets rely on the continued availability on land-based removals. This creates a tension between expected and achievable performance, making it critical to set targets that reflect biophysical realities while still incentivising improvements in land management.

At the same time, permanent CDR will need to scale significantly by 2040, and all Member States must play a role. Responsibility should be allocated based on capacity to act, while CDR delivery should be guided by cost-effectiveness. Enabling cross-border cooperation will direct investments to locations where deployment is most feasible.

3. CRCF REVISION, IMPROVED MRV AND EU ENABLING MEASURES FOR THE AGRI-FOOD AND FORESTRY VALUE CHAINS

3.1. The CRCF should remain a high-integrity certification framework with clear boundaries

The EU has taken an important step in building trust in CDR by establishing the first EU-wide voluntary Carbon Removal and Carbon Farming (CRCF) Regulation. By defining EU quality criteria, and monitoring and reporting processes for permanent carbon removals, carbon farming, and carbon storage in products, the CRCF is providing a foundation for the development of a credible CDR sector in Europe.

To operationalise the CRCF Regulation, the Commission has recently adopted the first certification methodologies for permanent CDR (i.e., DACCS, BECCS, biochar), while methodologies for carbon farming (i.e., afforestation, soil management, peatland rewetting) are nearing completion. Simultaneously, the development methodologies for other CDR approaches (e.g., enhanced rock weathering, ocean alkalinity enhancement) is being considered. The choices made in this phase are decisive. If methodologies fail to ensure high integrity, it risks undermining trust, distorting investment signals, and ultimately slowing progress towards the EU climate objectives.

It is therefore critical that the CRCF maintains a clear and consistent focus. In particular, its scope should remain firmly centred on carbon removals, avoiding expansion into broader mitigation activities that would blur the distinction between removals, reductions and avoided emissions.

With the revision of the CRCF expected at the end of 2026, this section examines how the Regulation and related policy instruments can support the delivery of carbon removal within the broader 2040 climate framework, focusing on the role of certification, monitoring, and enabling policies in translating targets into real-world outcomes.

However, certification alone will not drive CDR deployment at the scale required. Its impact depends on how it is embedded within the broader climate policy framework and how its outputs are used in practice.

In this context, clearly defined use cases are essential. Different applications, including compliance use, voluntary markets, or value chain approaches, have distinct requirements and should be treated accordingly to preserve environmental integrity.

To translate certification into real-world outcomes, the CRCF must be supported by policies that:

- Create compliance-driven demand;
- Ensure appropriate pricing of emissions (including biogenic);
- Maintain a strict distinction between different types of climate action;

Without these elements, CRCF risks becoming a complex certification system with limited real-world impact.

3.2. Expanding the CRCF scope risks blurring removals, reductions, and avoided emissions

The CRCF should remain focused on certifying high-quality carbon removals, with clear distinctions between removals, emission reductions, and avoided emissions. While the framework already includes some avoided emissions (e.g., peatland rewetting), expanding its scope to include non-CO_2 agricultural emissions (e.g., livestock methane) would represent a structural shift towards a broader mitigation framework.

Such expansion risks diluting the purpose and integrity of the CRCF. Emissions reductions in agriculture are essential, but are better addressed through dedicated sectoral instruments (e.g., CAP reform or regulatory measures), rather than through a certification framework. Certifying livestock emissions reductions risks incentivising incremental improvements rather than systemic change.

The inclusion of value chain certification (e.g., Scope 3/insetting) could provide value, but should be developed as a separate track, clearly distinct from credit-based certification, to avoid confusion and safeguard environmental integrity.

More broadly, certification alone will not drive mitigation at scale. Without a clear demand-side framework, the CRCF risks remaining a marginal tool.

3.3. Robust MRV is essential for credibility and integration into climate policy

Improving MRV systems is essential, particularly in the AFOLU sector where uncertainties remain high. Improvements must prioritise accuracy, robustness, and comparability, rather than speed alone.

MRV improvements should not be linked to national targets or flexibilities. Doing so would create perverse incentives, where methodological improvements lead to apparent performance gains devoid of corresponding real-world emission reductions.

Biogenic carbon accounting remains highly complex and method-dependent, with no consensus on a single robust approach. This continual debate reinforces the need to treat MRV improvements as technical progress, not as a basis for adjusting climate ambition.

Instead, MRV improvements should be supported through:

- Dedicated funding
- Technical assistance
- Harmonisation efforts focused on interoperability rather than full alignment

3.4. Accounting for harvested wood products requires clearer rules to ensure permanence and transparency

Carbon storage in harvested wood products (HWP) can contribute to mitigation, but its role should not be overstated. **Storage in products is temporary and depends on product lifetimes, use patterns, and end-of-life assumptions, which are model-based rather than directly measured**.

Evidence shows that biogenic carbon storage in products is highly sensitive to accounting methods and lifecycle assumptions, with no consensus on best practice. In addition, increased use of biobased materials alone delivers limited emissions reductions (e.g., 5-8% in building sector scenarios), highlighting the need for material substitution and broader systemic changes.

More detailed reporting and standardised statistics may improve transparency but are unlikely to drive significant mitigation outcomes. Additional reporting requirements should therefore be proportionate and policy-relevant to avoid unnecessary administrative burden.

The climate relevance of HWP depends strongly on product lifetimes and substitution effects. Long-lived products (e.g., in construction) can contribute to mitigation when they substitute emissions-intensive materials such as concrete or steel. By contrast, short-lived products (e.g., paper) provide only temporary storage, meaning carbon would be quickly reemitted back to the atmosphere. **Expanding accounting across all product categories risks overstating mitigation unless these differences are clearly reflected**.

3.5. Enabling policies are needed to scale climate action in the agriculture and forestry value chains

Enabling measures should focus on creating real economic incentives for climate action, rather than relying solely on certification frameworks.

Voluntary carbon markets can play a role in early-stage financing, but they are unlikely to deliver the required scale. A key gap is the absence of pricing for biogenic emissions, which limits structural demand for mitigation and removals.

Carbon Gap's latest report shows that aligning biogenic emissions with carbon removal obligations could unlock significant demand for temporary removals and support system-wide mitigation. Without such alignment, demand for CRCF-certified activities will remain fragmented and insufficient.

Effective enabling measures should therefore include:

- Pricing mechanisms for biogenic emissions
- Compliance-driven demand
- Targeted public funding to de-risk investments
- Demand aggregation mechanisms (e.g., EU Buyers' Club), provided they complement rather than substitute structural incentives

3.6. The CRCF should clarify use cases to strengthen the climate integrity of the framework

The CRCF regulation was initially designed for voluntary climate action, but is increasingly being considered for broader applications, including for potential integration into compliance frameworks and non-crediting approaches within value chains.

The CRCF revision should reflect this evolution by:

- **Adapting the scope of the regulation to ensure compatibility with use cases beyond the voluntary carbon market (VCM)** and explicitly identifying the different use cases covered or envisaged.
- **Providing flexibility in methodology design, including the possibility to revise methodologies over time and to develop differentiated versions tailored to specific use cases**. Alternatively, a modular approach could be adopted, with a single core methodology complemented by use-case-specific modules.

3.7. Conclusion: A focused and well-integrated CRCF is essential to translate certification into real-word CDR delivery

The CRCF can play a key role in enabling the scale-up of carbon removal, but only if it is embedded within a clear and coherent policy framework. Its effectiveness depends on maintaining a focused scope, ensuring high-integrity methodologies, and linking certification to real demand sources.

Clear use cases and robust MRV systems will be essential to translate certification into credible and measurable outcomes. When combined with appropriate pricing signals and enabling policies, the CRCF can help turn targets into real-world delivery while preserving environmental integrity. Without such integration, there is a risk that the CRCF remains a marginal instrument, failing to deliver the scale of CDR required to meet the EU's climate objectives.

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