


A group of hikers is seen from behind, walking along a rocky mountain trail. The hiker in the foreground is wearing a red jacket and a white hat. The background shows a steep, forested mountain slope under a clear sky. The overall scene is bathed in a warm, golden light, suggesting late afternoon or early morning.

MEASURING PROGRESS TOWARDS CLIMATE NEUTRALITY

**PART II: INTEGRATING INDICATORS IN EU
GOVERNANCE PROCESSES**

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Any errors or mistakes are the sole responsibility of the authors.

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DISCLAIMER

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The Net Zero 2050 series of reports aims to start building a vision and evidence base for the transition to net zero emissions societies in Europe and beyond, by mid-century at the latest. The Paris Agreement commits us to making this transition, and long-term strategic planning shows that many of the decisions and actions needed to get us on track must be taken imminently. While most of the reports look in detail at the actions and transformations needed in different sectors, the overarching governance framework is also key to making sure that these steps are identified and taken.

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EXECUTIVE SUMMARY

MEASURING WHAT NEEDS TO HAPPEN – ACROSS ALL RELEVANT PROCESSES

Climate neutrality by 2050 is the headline target of European Green Deal and now binding in law - and the EU needs to keep track of progress towards it and plan policies accordingly. This requires a more complex methodology than mere greenhouse gas emission trends, one that can anticipate and measure underlying structural change across several key elements. **Several relevant EU policy processes are currently underway that seek to define new progress monitoring systems** (EU climate law, recovery scoreboard and indicator set, 8th Environment Action Program) or revise existing planning and reporting procedures (National Energy and Climate Plans (NECPs), Long Term Strategies (LTSs), European Semester). The EU needs to integrate these processes and adopt a harmonized approach with a common indicator set as the most efficient way forward.

WINDOW OF OPPORTUNITY WIDE OPEN FOR A HARMONISED INDICATOR SET

The approach defined in this set of reports proposes to apply a concept of measuring the underlying structural change in key elements that together form a possible climate neutral future. The window of opportunity for the introduction of such an approach via net-zero indicators is wide open in 2021. The 8th EAP wants to develop headline indicators by the end of the year. A delegated act with common indicators for the Recovery and Resilience Facility (RRF) should also be adopted by then. For the European Climate Law, a methodology to assess progress to climate neutrality needs to be developed by 2023. This congregation of parallel processes seeking to

measure similar and related issues represents a unique opportunity to integrate and harmonise data gathering and reporting.

A common indicator set, including net zero indicators measuring structural change, could be applied (in sub-sets) for many similar but differentiated purposes, streamlining the underlying effort required and enhancing comparability and accountability. The same information and assessment matrix could inform the European Green Deal dashboard, the recovery scoreboard, Commission progress reports, country-specific recommendations and Member State planning processes (NECPs/LTSs) and climate neutrality progress checks.

INTEGRATION NEEDS TO START NOW – PROCESSES MUST BE CONNECTED IN 2021

The overarching policy recommendation from this analysis is clear: **the EU needs to develop a harmonised set of indicators to measure progress towards climate neutrality** for use in the many different processes – and do so **in the next 18 months**. With decisions to be taken by the end of 2021, these processes need to be connected and aligned right away to avoid duplication and inconsistencies. If a new lead process (such as resulting from the EU Climate Law’s implementation) cannot be established immediately, possibilities for a later integration must be kept open and should be explicitly anticipated. Development for a coherent progress measurement system has to start at the latest early in 2022 for use in the ECL’s climate neutrality check in 2023.

A coherent and harmonised approach for measuring climate neutrality progress can and should be connected to and integrated in a broader assessment of progress under the European Green Deal and overall sustainable development goals.

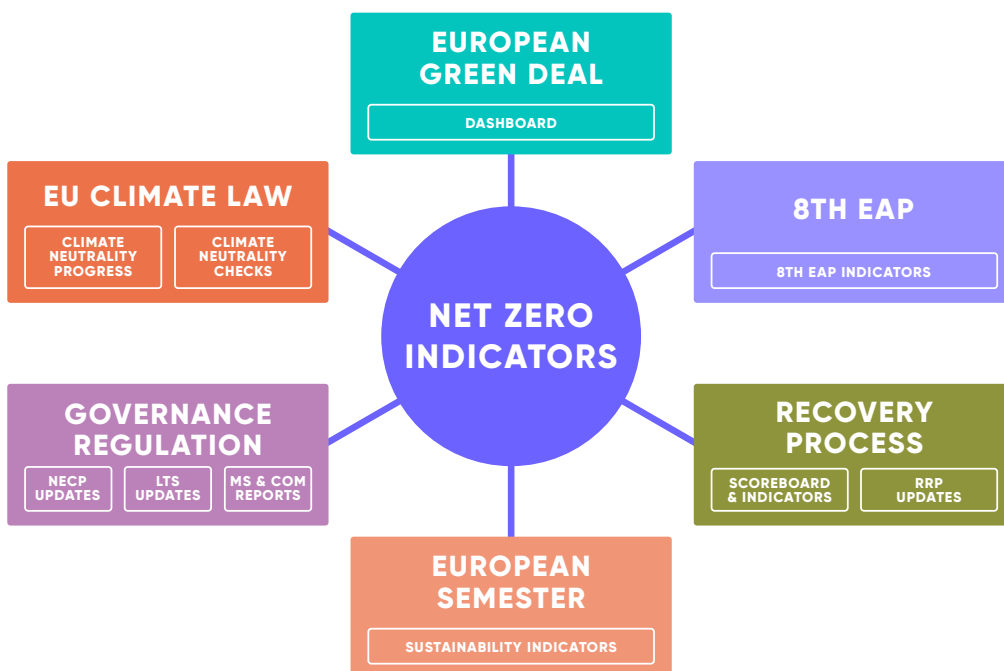


Figure 1: Several EU policy processes are in need of indicators to measure climate neutrality

Source: Own representation



INTRODUCTION:

MEASURING PROGRESS TOWARDS CLIMATE NEUTRALITY NEEDS IN-DEPTH ANALYSIS

INDICATORS AND THE LONG-TERM OBJECTIVE

The long-term objectives and pathways in the Paris Agreement have helped generate a much stronger focus on the transformational nature of the changes required to tackle the climate crisis – and on what it means to reach net zero and net negative emissions. This new focus has been aided by the drafting of 2050 strategies at national and EU level, the adoption of climate neutrality as a new long-term goal for the European Union. This has been made the core objective of the European Green Deal (EGD) and it has been enshrined in the EU Climate Law. The 2030 climate target for the EU has been strengthened as a result, one can argue.

The EU now needs to keep track of whether it is triggering the changes needed to achieve the long-term goal of climate neutrality – and it does not (yet) have an adequate monitoring framework to do this.

A METHODOLOGY FOR MEASURING STRUCTURAL CHANGE IN KEY “NET ZERO ELEMENTS”

This publication is Part II of a larger report on “Measuring progress towards climate neutrality. Part I “Assessing structural change through net zero indicators” developed a detailed **progress monitoring methodology** for tracking underlying change needed to achieve climate neutrality. It is built around eleven “net zero elements” that are all pieces of a vision of the future (see Figure 2). They include developments in both GHG emitting sectors (sectoral elements) and the cultural, governmental and economic structures that underlie all sectors and together paint a picture of what this climate neutral future would look like.

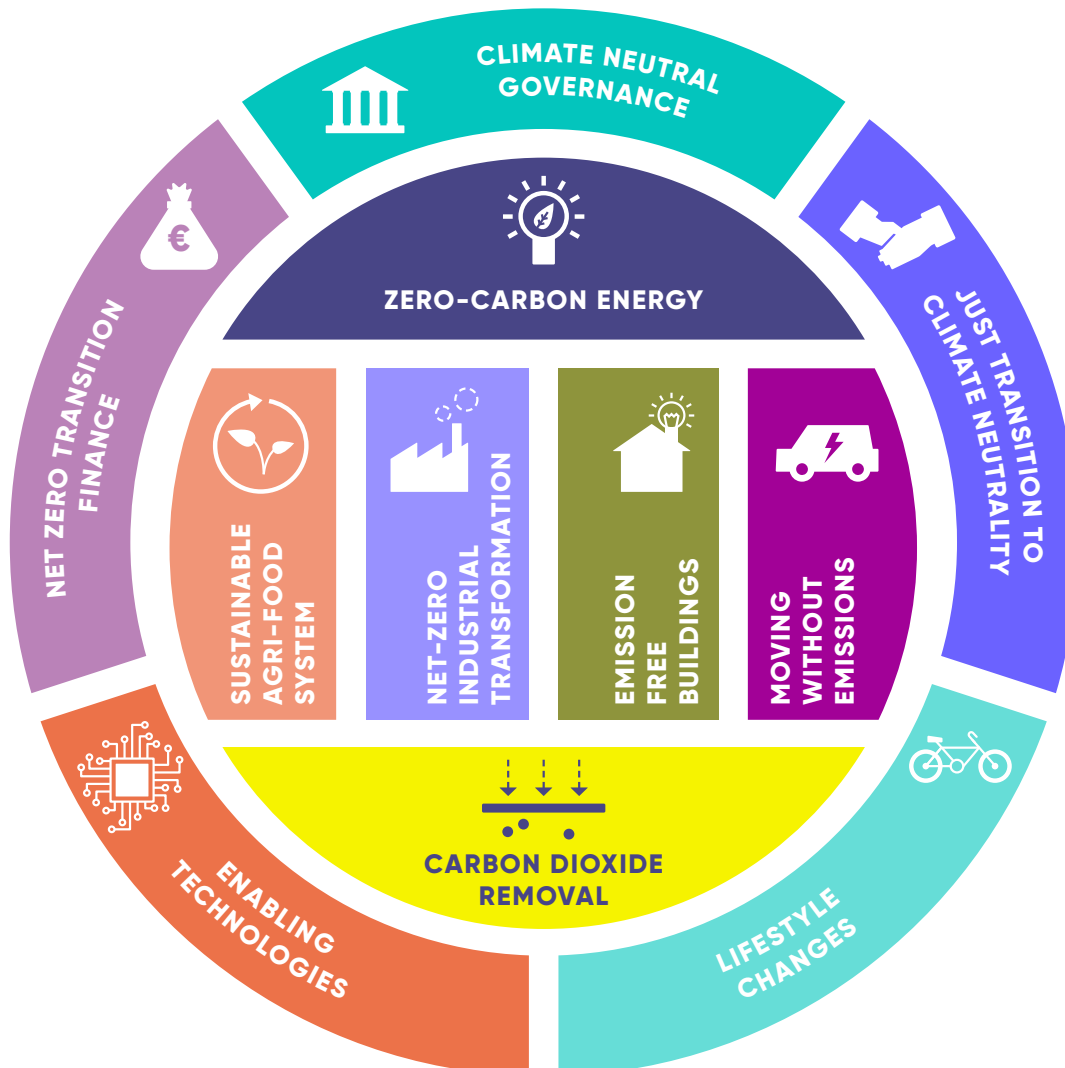
The measurement of the progress in these net zero elements is happening not just through existing targets and objectives, but also via the essential drivers and barriers for structural emissions reductions in the

respective field (“enablers”). This allows the proposed methodology to assess necessary underlying change that is far more complex than standard GHG emission trend values, for example. The **dedicated indicators** identified to track the enablers provide a detailed view of the advancement of the net zero transition and can indicate if the desired change is on track – or not.

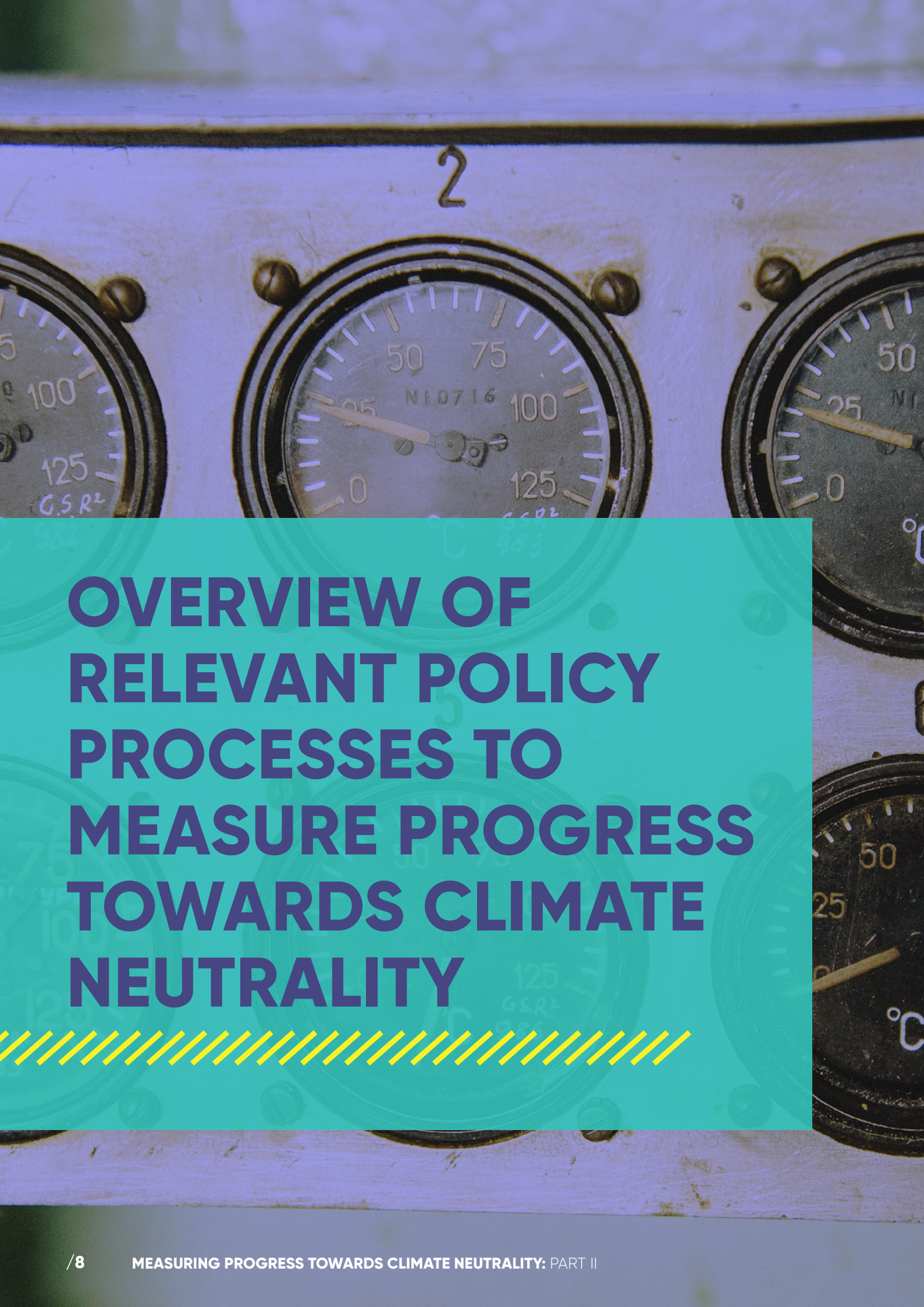
This part (II) “Integrating net zero indicators in EU governance processes” has analysed a suite of relevant policy processes to identify ways in which including net zero indicators can make the EU climate governance framework fit for the climate neutrality objective.

This report (both parts together) should be taken as a contribution, based on existing and ongoing research, to the debate on climate governance and mainstreaming into European policy. It is informed by a lot of existing thinking and aims to support a transparent debate and informed decision making on how to measure progress towards 2050 based on a sound understanding of drivers and barriers to the transformation.

Figure 2: Eleven elements for measuring progress towards climate neutrality



Source: Measuring progress towards climate neutrality (2021)



OVERVIEW OF RELEVANT POLICY PROCESSES TO MEASURE PROGRESS TOWARDS CLIMATE NEUTRALITY



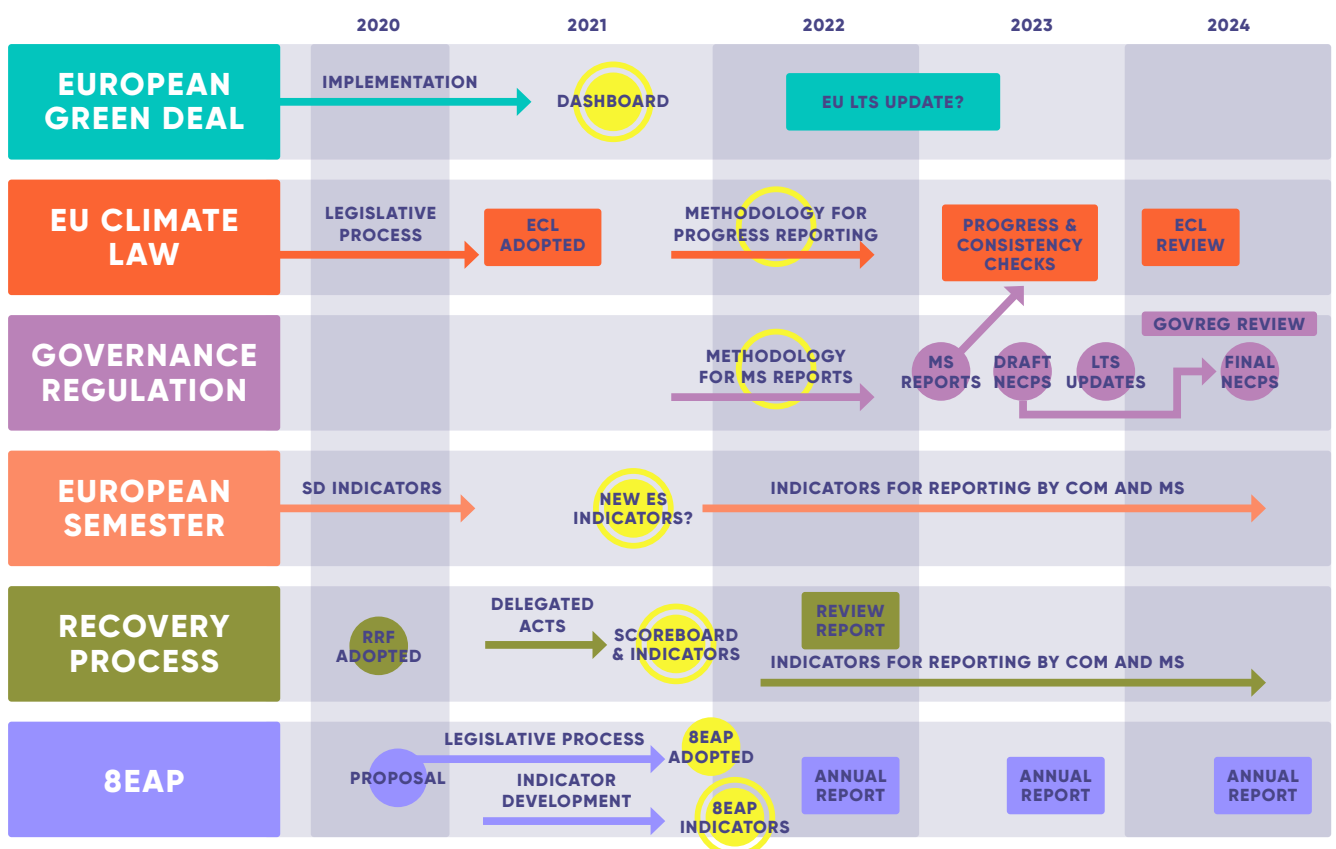
As of mid-2021, there are several processes underway to develop additional progress monitoring systems relevant to the climate neutrality target. Moreover, there are several existing procedures into which a long-term dimension could be (better) integrated.

This paper analyses the following main processes with a set of possible applications:

1. the procedures established under the European Climate Law
2. existing governance processes under the Governance Regulation
3. the development of a monitoring framework for the 8th Environment Action Programme (8th EAP) to 2030.
4. the potential integration in the European Semester's annual cycle – now being linked up with the recovery spending implementation process, and
5. the promise of a European Green Deal progress dashboard

All of these processes are in motion in some form in 2021 and beyond. Their temporal interlinkage is visualised in Figure 3. The relevance of these processes to planning for and tracking progress towards climate neutrality, and the fact that they are all under development (or review) in parallel, makes it necessary **to analyse them both individually and together**. In the subsequent sections, each piece of legislation and/or political process is described and checked against its potential as a vehicle for the type of net zero indicators set out in this report. Specific recommendations for how the net zero indicators could be used are defined for each process. The conclusions combine the insights from the individual processes to distil an overall recommendation.

Figure 3: Visualisation of timeline of relevant processes for net zero indicators



Source: own representation



OPERATIONALISING THE NEW “NET ZERO CHECKS” IN THE EUROPEAN CLIMATE LAW

BACKGROUND

In the early morning of April 21, 2021, EU policy-makers struck a compromise on the European Climate Law (ECL)¹, just over a year after the initial proposal had been published.² For the future shape of EU climate governance, this is a central legal instrument – and it specifically addresses progress monitoring towards climate neutrality.

Its main features are as follows: The new law makes the goal of achieving climate neutrality by 2050 binding and establishes a range of additional processes to institutionalise a long-term perspective in EU climate policy. It also enshrines in law the new climate target for 2030 for the EU as a whole (net 55% reduction from 1990 levels) and creates a dedicated process for setting a 2040 target - in combination with the calculation of an indicative greenhouse gas budget for 2030-2050. All of these are essentially new elements to EU climate governance. There is also a separate commitment for adaptation to climate impacts. Two additional innovations created by the law: it establishes a “European Scientific Advisory Board on Climate Change” as an independent expert body to help inform and observe policy-making and it institutes five-yearly assessments of collective progress and consistency of EU and national measures with the climate neutrality goal. There is also a separate commitment for stronger public participation, plus changes to the Governance Regulation to implement some of the respective processes into the existing legislative framework.

The original proposed legal text by the European Commission had been rather short (11 articles on 6 pages) and included few changes to the existing governance system as established by the Governance Regulation (see following segment). Whereas Member States had essentially agreed with the Commission’s lean approach to defining an overarching EU Climate Law,³ the European Parliament had wanted to see several measures specified further or added to the law. These included a carbon budget approach, the definition of sectoral climate strategies and the introduction of a new scientific advisory body⁴, elements found also in several national climate laws.⁵ These additional elements are now part of the future EU climate governance system, even if in somewhat altered form from the EP originals (sectoral roadmaps are voluntary, for example).

INTEGRATION OF NET ZERO INDICATORS

The European Climate Law is the first piece of EU legislation specifically dedicated to achieving the long-term objective of climate policy. It clearly connects EU climate policy to the Paris Agreement and its goals, makes the climate neutrality target binding and proposes a few specific measures to facilitate its achievement, including a dedicated progress monitoring system. There are several ways in which net zero indicators could be used in the implementation of the EU Climate Law through the various assessments and the potential institutional set-up being established. Please note that the references to Article numbers may change for the formal versions to be published in the Official Journal – numbers here refer to compromise version adopted by COREPER on May 5th, 2021.⁶

PROGRESS MEASUREMENT EVERY FIVE YEARS (STARTING IN 2023) – BUT NO METHODOLOGY

Article 5 defines three different types of climate neutrality related assessments to be carried out by the European Commission. Measuring “collective progress made by all Member States” is the first, differentiated into progress towards the climate-neutrality objective (Article 5.1.a) and adaptation (Article 5.1.b). The progress assessment is meant to be based on a “distance-to-target” measurement against a line drawn between historic levels via 2030 and 2050. There is no specific mention of the development of more detailed methodology looking at underlying fundamentals. However, Article 7 of the ECL proposal defines “common provisions” for all the assessments in Articles 5 and 6, which list a range of information sources (EEA reports, EU statistics, IPCC reports, EU sustainable finance data) to be used “at least” – clearly allowing for an even broader set of information for an in-depth assessment. This underscores the breadth of the evaluation exercise and the need for a specific methodology, which could result in a net zero scoreboard.

POLICY CONSISTENCY CHECKS FOR EU AND MEMBER STATES (STARTING IN 2023)

The second check analyses EU-level policies and measures again split into “consistency (...) with the climate-neutrality objective” (Article 5.2.a) and “adequacy (...) on adaptation” (Article 5.2.b). A gap identified in the overall progress and in this policy consistency check is meant to result in “necessary measures” (Article 5.3) being taken by the Commission (leaving open what form such measures would take).

Article 6 establishes a similar assessment of the consistency of national measures communicated through NECPs and biennial progress reports “as relevant for the achievement of the climate-neutrality objective” (Article 6.1.a). The evaluation would be undertaken by the European Commission and could result in country specific recommendations, that Member States “shall take due account of” (Article 5.3.a).

Both evaluations will presumably require a detailed methodology analysing the existing set of measures, a look into sectoral developments and also horizontal effects. This is very close to the approach defined in this report.

CONSISTENCY CHECK IN EX ANTE IMPACT ASSESSMENTS

The third type of climate neutrality related check is to “any draft measure or legislative proposal in light of the climate-neutrality objective” (Article 5.4) to be conducted as part of the European Commission’s impact assessments for any major legislative change. Such a systemic check would presumably need to be meeting two seemingly contradictory requirements, in that would have to be both a) tailored to the specific measure or law and b) applying a consistent assessment methodology such that any new proposal would be checked against a set of potential ways in which progress towards climate neutrality would be facilitated or hampered. Such a “climate neutrality impact matrix” could follow similar structure and logic as the net zero indicators approach.

SECTORAL ROADMAPS AS INPUT TO INDICATOR BENCHMARKS

Several sectoral and horizontal strategies have been formulated already at EU level in the past – and especially those published in the course of 2020 make reference to the climate neutrality objective (Just Transition Mechanism (01/2020), Industrial Strategy (03/2020), Farm-to-fork strategy (05/2020), Hydrogen Strategy (07/2020), Renovation Wave (10/2020), ...). The European Parliament had wanted to include a specific obligation for the European Commission to issue “a sectorial decarbonisation roadmap towards climate neutrality by 2050 at the latest” for each relevant sector within a year after adoption of the EU Climate Law, “following an in-depth dialogue with all relevant stakeholders within a relevant sector” (Article 3.3a / Amendments 77, 123 and 145). The final text of the law only includes a Commission-led dialogue and the possibility of voluntary sectoral roadmaps (Article 8a). Such sector-specific roadmaps that address pathways for these sectors should on the one hand consider relevant enablers (and potential barriers) such as outlined in this report, and on the other hand could yield detailed information for setting benchmarks for indicators to measure progress for sectoral change.

UPTAKE BY THE EUROPEAN SCIENTIFIC ADVISORY BOARD ON CLIMATE CHANGE

Almost all EU Member States have some form of national advisory bodies on climate change, and many of these are primarily composed of scientific experts.⁷ At the time of writing, ten European countries have already formed dedicated independent scientific climate advisory councils, largely comparable to the body now established at EU level. These councils play a few roles, often in connection but to different degrees: they can be largely information providers, or perform more in-depth analysis to inform policy-making and can use both to act as watchdogs of governmental action (mostly via annual reports).

The new European Scientific Advisory Board on Climate Change has been given a broad mandate to set its own work programme independently to implement the duty of “providing scientific advice and issuing reports”. This gives its future members relatively free reign over the use of their resources in support of external EU climate policy monitoring. However, this freedom may have come at a price. The law does not explicitly connect the Board to the assessments on progress and consistency mentioned above, which will be carried out by the Commission. Moreover, the absence of specific and regular mandatory outputs that are then inserted into EU policy-making (such as an independent appraisal of the Commission’s assessments of progress, which then Council, Parliament and Commission have to respond to) may make it more difficult to connect to policy processes and be heard. The Advisory Board will need to define its role and insert itself proactively. A thorough monitoring methodology for climate neutrality should be top of the agenda.

CONCLUSION

The new assessments regarding climate neutrality being introduced by the EU Climate Law should be based on specific methodologies, which are not defined in the law itself and will have to be elaborated separately. A simple progress check against the emissions trajectory towards 2050 does not provide an adequate assessment of what is actually happening in terms of the underlying dynamics. The consistency check on Union and national measures will have to be detailed and cover both sectoral and horizontal aspects – and is thus also quite close to the approach outlined in this report (Part 1). The same is true for the integration into future impact assessments and the use in any work by the European Scientific Advisory Board on Climate Change.

The European Climate Law proposal does not specify how and when the methodologies would be defined and leaves this process as a whole as well as the content open for decision by the European Commission. As the assessments should be published for the first time by the end of September 2023, there is a window to define the specific methodology over the next 12-18 months. It could and should be directly connected to related processes underway (such as under the European Semester and the 8th EAP, see subsequent sections) – and involve input by the interested public and external expert stakeholders in a transparent process. The European Scientific Advisory Board on Climate Change could also make it a main goal to proactively engage in putting forward ideas for a detailed progress measurement matrix that can be used across the processes.

Beyond that, sectoral roadmaps could provide a valuable detailed analysis that could serve as input to setting benchmark values for sector-related indicators in the future, which could be included in progress measurement. Several industrial sectors have developed detailed roadmaps in the past and have an interest in ensuring that their data and future visions are integrated

The mention of these roadmaps in the EU Climate Law serves as a strong reminder that an update to the EU Long-Term Strategy as such is missing from both the Climate Law and the Governance Regulation right now. With the adoption of the new 2030 target, a key cornerstone of the 2018 EU LTS has changed significantly, which requires a recalculation and adjustment of the long-term strategy to account for the new trajectories. An update to the EU LTS is thus imperative, to inform both policy-making and progress monitoring. This would logically be connected to any progress monitoring methodology, certainly to provide inputs on setting benchmarks for monitoring.

POLICY RECOMMENDATIONS

- The European Commission should start a process for the transparent development of an assessment matrix to measure progress towards the climate neutrality objective and the EU and national measures by mid-2022, for use in the assessments laid out in the EU Climate Law.
- Provide regular (more often than every five years) high-level reporting on progress towards climate neutrality (in the context of the State of the Energy Union reports). If the Commission will not do so, the advisory board should.
- Develop an update to the EU long-term strategy to account for the higher 2030 target and take into account other new information and initiatives under the European Green Deal.
- Use information from an updated EU LTS and sectoral roadmaps to inform the setting of progress benchmarks in the indicator set.
- Integrate the effect of new measures or draft legislation in the guidelines for impact assessments as a separate question: “What will be the contribution to the climate neutrality objective?”



STRENGTHEN THE LONG-TERM DIMENSION IN THE EXISTING ENERGY UNION AND CLIMATE ACTION GOVERNANCE

BACKGROUND

One could argue, that the Governance Regulation (adopted in 2018) has helped bring about the adoption of the climate neutrality objective. The Governance Regulation establishes the overall structure for planning and monitoring the EU's climate and energy goals for 2030. It also introduces a dedicated long-term dimension into that structure, partially in response to the Paris Agreement, through the obligation to develop long-term strategies for each Member State and the European Union. When the European Commission published its draft strategy for the EU in November 2018, it proposed climate neutrality as a new long-term objective, which was subsequently adopted by the European Council in December 2019.

A DETAILED PLANNING AND MONITORING FRAMEWORK FOR 2030 AND 2050 CLIMATE TARGETS

The Governance Regulation reorganised the way the EU sets out to reach its non-ETS climate goals and its Union level objectives on renewables and energy efficiency – and the way that Member States and the European Commission interact on these processes.⁸ Essentially, the Governance Regulation integrates national planning processes (and partially the reporting also) for climate and energy which had previously been separate (if in parts connected) and establishes specific cycles for monitoring and reviews. The main vehicle for the communication of national goals and instruments to achieve them are the **Integrated National Energy and Climate Plans** (NECPs) developed by Member States, assessed in their draft form by the European Commission. These were first adopted at the end of 2019 and should be valid for the period 2021 to 2030, with a draft update to be submitted by Member States by mid-2023 (final version a year later). NECPs thus operate on a five-year cycle.

The Governance Regulation also spells out a detailed system for monitoring and reporting. The European Commission issues the **State of the Energy Union report** on an annual basis, Member States provide emissions data every year (as is existing practice and a UN obligation) and an **integrated progress report** every two years, plus updated lists of policies and measures also every two years. The Commission checks for implementation gaps and may issue country-specific recommendations should any be detected.

As indicated above, the Governance Regulation also obliges all Member States to develop **long-term climate strategies** (LTSS) which should contain a forward-looking perspective of the next 30 years. These were due at essentially the same time as the final NECPs (formal 1.1.2020), without prior drafts or being assessed by the European Commission. NECPs have to be consistent with the LTSS (Article 15.6 GR), but there is no process to verify that they are. While there is a mandatory common template for the NECPs, there is only an indicative one for the LTSS. While all Member States have submitted draft and final NECPs, at the time of writing there are only 18/27 LTSS available on the respective commission website.⁹ Updates of the strategies are requested every five years “where necessary” (Article 15.1 GR) there is no mention of any updating of the EU long-term strategy. These elements have not been altered by the adoption of the EU Climate Law (which does introduce some changes to the GR). The less stringent treatment of LTSS in both the legal text and the implementation by Member States shows the prioritisation of the 2030 dimension EU climate governance system, despite the growing importance of the climate neutrality objective.

INTEGRATION OF NET ZERO INDICATORS

The Governance Regulation could make use of net zero indicators in several ways to enhance the overall monitoring of progress towards the long-term objective.

INTEGRATION IN ANNUAL STATE OF THE ENERGY UNION REPORT BY COM

The European Commission’s annual reporting on progress towards the energy and climate targets is the channel through which a lot of detailed reports are communicated to the public. The EU Climate Law’s climate neutrality progress checks also names that report as a way to communicate the results of the progress assessment, but this would only happen every five years. Considering the fact that this overarching report runs on an annual cycle and provides a summary overview of all the main elements, it is best suited as a place for regularly checking on key progress indicators for the move towards climate neutrality. As it is, the European Commission is already reporting every year, despite the fact that member states only provide progress reports every two years. The State of the Energy Union report is thus already independent from other monitoring cycles and could include a high-level progress indication every year. This would need to be based on a sufficiently methodology. Efficiency would demand this to be the same or directly connected to the methodology as that used under the European Climate Law.

INTEGRATION IN THE BIENNIAL PROGRESS REPORTING BY MEMBER STATES

The same is true for the biennial progress reporting compiled by Member States. The connection between long-term developments and the implementation of the NECPs (which as underlined above must be consistent with long-term strategies anyway) to be strengthened by including dedicated indicators to measure progress towards long-term objectives in the national reporting. Again, a similar set of elements could be checked as would be used for the assessment to be undertaken of national measures according to the European Climate Law in its Article 6. Reporting on the contribution to the climate neutrality goal has been included as mandatory in the Governance Regulation through the Climate Law (Article 10.6a ECL, Article 17 GR). A template for the reporting (due for the first time in March 2023) is to be developed via the Energy Union Committee (Article 44.1.b) – without a timeline as to when this would take place.

USE IN ASSESSMENT OF NATIONAL LONG-TERM STRATEGIES

Due to the fact that several member states have failed to submit their national LTS, no comprehensive comparative analysis has been produced thus far. However, evidence from a variety of existing initiatives indicate that these strategies are diverse in many ways, including the level of detail they analyse and provide. The Governance Regulation does not provide the means to improve the strategies and ensure alignment and standardisation over time. There is no mandatory template, no in-depth quality assessment process, no iterative dialogue with the Commission or between Member States. Even if and when national strategies are reviewed and revised, alignment is unlikely to occur. There is thus a risk that national strategies could be built on contradictory information and may not provide adequate information or have the political power and credibility to play a role in informing current policymaking. Net zero indicators such as those presented in this report could be used to establish an evaluation matrix for national LTSs and the EU long-term strategy. They could help define core information that should be included in long-term strategies but also could be adapted to provide common benchmarks, while considering nationally specific circumstances.

USE IN INCLUDING A LONG-TERM DIMENSION IN THE NEXT SET OF NECPS (2023)

The obligation for NECPs to be consistent with long-term strategies is already in the Governance Regulation. The EU Climate Law has included the need to report on the contribution to climate neutrality. When the first set of NECPs were being drafted many member states did not yet have national long-term strategies that the plans could be consistent with. Future updates need to include specific information to that effect. The EU climate law proposal from the European Commission amends the Governance Regulation such that the contribution of national policies and measures to the climate neutrality objective needs to be described in NECPs in the future (Article 10.4 ECL introduces Article 8.2.e GR) and also changes the template accordingly. A set of indicators could operationalize both the check on consistency with the national long-term strategy as well as the contribution to the EU's climate neutrality goal. Using the same indicators for both NECPs and LTSs would support consistency between the two, already a legal obligation.

CONCLUSION

In sum, the Governance Regulation has introduced a long-term perspective in the EU's climate and energy architecture, but the 2030 dimension is much more prominent and refined and is clearly at risk of dominating long-term developments, despite the fact that long-term strategies should help inform near-term policymaking to ensure that both are aligned. The EU Climate Law's additional progress checks elaborated above complement the existing monitoring cycles with one dedicated to climate neutrality, but the Commission proposal only does so every five years.

Arguably both the adoption of the EU climate neutrality goal and the increase in the 2030 climate target have created a dynamic that wasn't entirely anticipated when the Governance Regulation itself was being negotiated. NECPs will all clearly have to be updated against this background, and many long-term strategies could be out of date also. This provides an opportunity to strengthen consistency between them and to ensure that they in line with a pathway towards climate neutrality. This could be implemented by spelling out specific net zero elements or indicators which would serve as a basis for such a comparative assessment. Ideally such a process would be established through amendments to the Governance Regulation. The European Commission's list of legislative instruments to be revised as part of the "fit for 55" package does not include the Governance Regulation, but the possibility remains open and the case for it is strong. Some aspects could be addressed without codification and law, but with a higher risk of not all member states participating. The European Commission could convene a platform for the improvement of NECPs and long-term strategies, for example connected to the development of the climate neutrality progress assessments under the EU climate law.

POLICY RECOMMENDATIONS

- Adopt a common set of net zero indicators to improve both planning and reporting under the Governance Regulation overall (including them for both NECPs and LTSs and the biennial reports). They should be the same as such indicators being used in the methodology developed for the purposes of the EU Climate Law (see previous section).
- Amend the Governance Regulation to include a set of specific net zero indicators in a mandatory template for long-term strategies and for NECPs.
- Amend the Governance Regulation to include an assessment by the European Commission of national long-term strategies in Article 15, based on specific net zero indicators established for both NECPs and long-term strategies.
- Include specific net zero indicators in the template to be developed for reporting by Member States (as per Article 17.4 GR).
- Amend the Governance Regulation to include specific net zero indicators in the assessment of progress by the European Commission (Article 29 GR) every two years and the annual State of the Energy Union (Article 35 GR).



A HOME FOR NET ZERO INDICATORS IN THE 8TH ENVIRONMENT ACTION PROGRAMME'S MONITORING FRAMEWORK

BACKGROUND

Priority setting in EU environmental policy has been organised via the definition of Environment Action Programmes (EAPs) for close to half a decade now, starting in the early 1970s.¹⁰ The proposal for the eighth EAP (8EAP) was presented by the European Commission on October 14, 2020 in the form of a draft decision, following an evaluation and consultation process that commenced three years earlier.¹¹ At the time of writing, the legislative process is underway¹² and the final content of the legal act not decided. The 8EAP was also included in the European Green Deal's roadmap of key actions and mentioned as a "complement" to the EGD.

A MONITORING FRAMEWORK THAT INCLUDES CLIMATE NEUTRALITY

The proposal for the 8EAP contains three main elements: priority objectives (Article 2), enabling conditions (Article 3) and a monitoring framework (Article 4). The 2030 climate target and the goal to achieve climate neutrality by 2050 are the first of the priority objectives listed. The proposal does not list specific individual actions to be taken in relation to these objectives, which is a change to the 7EAP, where many such actions had been named in an annex to the Decision establishing the programme.¹³

No detailed monitoring framework was established for the 7EAP. The legislative act did not contain more than a general obligation on the Commission to monitor implementation (Article 4.1 7EAP) and language in the preamble on the use of agreed indicators for this purpose (Recital 35 7EAP). Progress monitoring under the 7EAP has largely taken place using the State of Environment Reports¹⁴ and Environment Indicator Reports published by the European Environment Agency (EEA)¹⁵. In addition, an evaluation was carried out towards the end of its duration as an input to the formulation of the next programme (mandated via Article 4.2 7EAP). The Commission's report on the evaluation stated clearly that the "7th EAP would (...) have benefited from a monitoring mechanism to ensure ownership and delivery of commitments as well as clear and agreed indicators to measure progress in delivery of the actions." (page 3)¹⁶ Accordingly, the inclusion of a monitoring framework received political support from Parliament and Council¹⁷ and was then specifically promised in the European Green Deal communication in December 2019.¹⁸

HEADLINE INDICATORS TO BE DEVELOPED IN 2021

The Commission's proposal for a monitoring framework for the 8EAP defines an obligation on the Commission to assess and report on progress towards the priority objectives "on a regular basis" (Article 4.1 8EAP) without specifying the timing or frequency of that reporting being published. The Commission would be assisted by the EEA and the European Chemicals Agency (ECHA) in the progress monitoring and lists specific tasks for them, the majority related to data gathering and analysis. There is no specification of a specific format or methodology for progress monitoring in the legal text. However, the explanatory notes by the Commission add more of the Commission's thinking, naming a headline indicator set and a new online database of environmental indicators. Furthermore, it states the intention "to present an 8th EAP headline indicator set by the end of 2021" (page 6) and announces a consultation process on the matter.

In the preamble to the decision and in the explanatory text, the proposal recognises the need build on and connect with related monitoring and data gathering processes and be “coherent with and without prejudice to monitoring (...) tools covering more specific aspects of environment and climate policy” (Recital 14 8EAP). The same recital specifically mentions the European Semester in this context. Moreover, the effective integration of “environmental and climate sustainability in the European Semester of economic governance” (Article 3.1.c 8th EAP) is listed as an enabling condition to achieving the priority objectives.

A consultative document of informal nature was published by the European Commission on February 17, 2021, elaborating on the Commission’s thinking on the 8th EAP indicators.¹⁹ It lists a set of sequential steps for the consultation but does not include an indication of timing. It does not address the lack of specificity in the 8th EAP proposal with regard to frequency and timing of the future progress reporting. However, it states the Commission’s intention to invite Council and Parliament to a high-level strategic dialogue based on the progress report that includes the headline indicators. Moreover, it identifies a “unique opportunity for ensuring coordinated and coherent monitoring tools”, because there are several relevant new monitoring systems being established (for example the ones under the EU Climate Law (see above) and the Recovery and Resilience Facility (see subsequent chapter in the report).

PARLIAMENT AND COUNCIL AGREE ON ANNUAL MONITORING WITH SYSTEMIC INDICATORS

The **European Parliament’s Environment Committee** published its **draft report**²⁰ on February 3, 2021. The draft report by MEP Grace O’Sullivan, which gives an early indication of the potential position of the Parliament on the 8EAP, provides further specification to the monitoring framework. It adds that progress reporting should be annual (Article 4.1 Amendment 70) and that the reports should include a distance-to-target measurement and measure the extent to which a necessary systemic shift is happening that is required to meet the priority objectives (Article 4.1 Amendment 72). It also mandates an annual dialogue between Parliament, Council and Commission on the basis of the report to discuss the potential need to take additional action. With regard to the development of the headline indicators it includes the deadline for the process as end of 2021 directly in the legal text (Amendment 71). The need to measure the transformational nature of the change required is mentioned explicitly and put forward as a guiding principle for the future development of the indicators.²¹ Such a refined and expanded set of indicators measuring systemic change would then be applied in an “evolved monitoring framework”, to be applied after a proposed a mid-term evaluation of the entire programme in 2024 (Recital 17a, Amendment 21 / and new Article 5.1 Amendment 74)).

Moreover, the draft report adds a list of specific actions to be undertaken to realise the enabling conditions in Article 3. One is an obligation on the Commission to identify “the interlinkages between the various monitoring frameworks in use at Union level that measure social, economic and environmental progress and (...) how these can be streamlined” (Article 3.1.a (new) Amendment 65) and present a report with its findings by the end of 2022. This connects directly with the need for, and opportunity to integrate different monitoring systems mentioned in the Commission’s consultative document – and would connect also to the systems in place or being elaborated that this report analyses, notably those under the EU Climate Law.

The Committee of Permanent Representatives agreed the **Council mandate** for negotiations with the European Parliament on 17th March 2021.²² It proposes fewer and less substantial changes to the Commission’s proposal (e.g. no actions directly in the law) but agrees with the Parliament’s draft report on key monitoring related issues. The Council also inserted an obligation for annual reporting by the Commission and specifies that this should “take into account a systemic approach and aim at facilitating strategic political communication” in Article 4.2. It elaborates that the system should be based on headline indicators, which should include systemic indicators, to be elaborated by the end of 2021 as a result of a consultation process. It also specifically inserts language that the Commission’s progress assessment “shall be coherent with” other monitoring frameworks.

INTEGRATION OF NET ZERO INDICATORS

The proposal for an 8th EAP directly cites climate neutrality as a priority goal, but covers a broader environmental scope. It defines enabling conditions and states that these should be taken into consideration in progress monitoring. This creates a close connection to approach for transformational progress measurement described in this report, that suggest to measure climate neutrality via net zero elements and their enablers. There are several ways that the net zero indicators approach could inform the adoption and implementation of the 8th EAP and its monitoring framework.

DEVELOPMENT OF THE HEADLINE INDICATORS IN 2021

The consultation process has started and will receive inputs from many stakeholders over the course of 2021. The approach for net zero indicators presented in this report can be used as input to that process, communicating the underlying concept of “measuring what needs to happen” to get at whether the underlying change is occurring – while realising that the scope of the indicator set will be significantly broader than climate neutrality. Both Parliament and Council have indicated their general agreement with the need to look at systemic and structural change in the monitoring process.

DEFINITION OF THE MONITORING FRAMEWORK THROUGH THE LEGISLATIVE PROCEDURE

The legislative process currently underway can still specify further the indicator development (how and what to measure, and how often) and the respective governance procedures, going beyond the low level of detail put forward by the Commission. The concept of the net zero indicators and how they measure underlying progress can be explicitly referenced in the legislation. While this report does not include recommendations on how the EU environmental governance should be organised, work done by IDDRI and Ecologic Institute on climate governance processes²³ suggests that regular annual reports and specifying an addressee and a process for taking action on the basis of reports of potential gaps is advisable. The initial positioning by Parliament and Council already goes into that direction.

CONSIDERATION OF AN EXERCISE TO DEFINE AN INTEGRATED AND COHERENT MONITORING SYSTEM ACROSS PROCESSES

The need for integration and coherence between the various connected monitoring processes relevant to climate neutrality is evident from the ones being analysed in this report. As stated by the Commission's consultative document, there is a unique opportunity in the fact that several relevant systems are being elaborated in parallel, specifically the European Semester and the recovery process and the EU Climate Law assessment. Such an integration of progress measurement serving several policy processes should consider sustainability more broadly (as does the European Green Deal),²⁴ but the climate neutrality objective is a connecting element in many relevant processes and could help guide such an exercise. The net zero indicators approach could be a central theme facilitating coherence and integration for the climate dimension of such an overarching coordination.

CONCLUSION

The 8th Environment Action Programme up to 2030 is being defined both legally and in terms of progress indicators in the year 2021. Both the final legal text and the first steps in the monitoring process should take into account the systemic shift needed to achieve climate neutrality (and other priority objectives) and the types of indicators this requires. Specifically, this means doing the following.

POLICY RECOMMENDATIONS

- Include a means of measuring underlying structural changes towards climate neutrality (and possibly other long-term objectives) in the development of the headline indicator set. This could be done through the concept of enablers and analysing horizontal elements (as described in Part I of this report).
- Include the need to monitor systemic change in the 8th EAP's monitoring framework directly in the text of the decision.
- Specify annual progress reports and a high-level dialogue about potential actions to address gaps.
- Include explicit language in the law about the integration of monitoring and governance tools across several policy fields (such as the EU Climate Law), that should inform the framework and the specific definition of the indicators for the 8th EAP – as well as provide information to the other policy processes. This integration should take place already as part of the process of developing the indicators in 2021. The indicator development should be done in direct cooperation with the related processes underway for the European Semester and the recovery process plus the one to be started for the European Climate Law implementation.



INTEGRATING CLIMATE NEUTRALITY INTO THE EUROPEAN SEMESTER TO GUIDE REFORMS AND RECOVERY SPENDING

BACKGROUND

The procedure known as the “European Semester” (ES) is the annual economic policy coordination cycle between Member States and the European Commission and has been in operation since 2011.²⁵ However, it is being expanded and reformed in two ways at the same time in 2021:

- As part of the European Green Deal, the Semester is meant to “refocus” and become a tool to facilitate the achievement of climate neutrality and the UN’s sustainable development goals.
- In parallel, the European Semester is now also being used to help implement the recovery efforts during the Covid-19 pandemic and the disbursement of funds from the Recovery and Resiliency Facility (RRF).

This section covers both of those processes in turn and then considers them together, as the recovery funding dissemination is directly influencing the operation of the European Semester.

ECONOMIC GOVERNANCE THROUGH THE EUROPEAN SEMESTER

The Semester is an elaborate governance procedure with its own vocabulary. For the purposes of the consideration of how net zero indicators can be integrated into it, a minimum introduction and general background are required.

The European Semester’s overarching purpose is to achieve a minimum degree of economic policy coordination between EU Member States to help achieve EU goals and prevent economic instabilities. It does so through a process that is being facilitated by the European Commission. It covers economic and fiscal policy, including necessary structural reforms (e.g. in national markets or institutional arrangements). There are two arms of the Semester cycle, one focusing on budgetary policies and structural reform (this is also where climate and energy are addressed) and one for “macroeconomic imbalances”, as a surveillance mechanism to help prevent a future crisis.

The Semester essentially includes the elements of a classic policy learning cycle: target-setting and strategic orientation, implementation, progress monitoring and assessment, defining additional actions to be taken (review). Specifically, the annual cycle for the economic policy and structural reform arm of the European Semester²⁶ consists of the following five main steps or phases (see also Figure 5 below):

Step 1:

“The Autumn Package” serves to set out the strategic priorities for the coming year in the form of the **Annual Growth Survey (AGS)**²⁷, on the basis of a status quo evaluation drawn up by the European Commission.²⁸ Usually published in November

Step 2:

“The Winter Package” puts forward the Commission’s assessments of Member States’ progress on agreed objectives and actions through the publication of a set of **country reports** that include details on a range of indicators. Usually published in February.

Step 3:

Not a package but a collection of individual submissions of so-called **National Reform Programmes (NRPs)** by each Member States, which are self-evaluation progress reports that explain actions taken in the course of the last year in each country. NRPs are due in April.

Step 4:

“The Spring Package” presents the Commission’s analysis of where each Member State could do more work to implement reforms or achieve specific targets (based on country reports and NRPs), communicated in the form of so-called **country-specific recommendations (CSRs)**. These are discussed with Member States and adopted by Council. Process usually happens between May and July.

Step 5:

As most Member States go through their own national economic and fiscal planning and policy cycles, they should incorporate the CSRs into their plans and budgets for the coming year – from August to November. Then the cycle starts again.

NATIONAL IMPLEMENTATION OF RECOMMENDATIONS IS INSUFFICIENT

In this soft governance process, the implementation of CSRs by Member States cannot be legally enforced. The European Court of Auditors has criticized the lack of follow-up by Member States, which is evident in Commission assessments of the extent to which CSRs have been implemented.²⁹ It has also recommended that the Commission carry out assessments of the NRPs and require further information from Member States where these are found to have gaps.³⁰

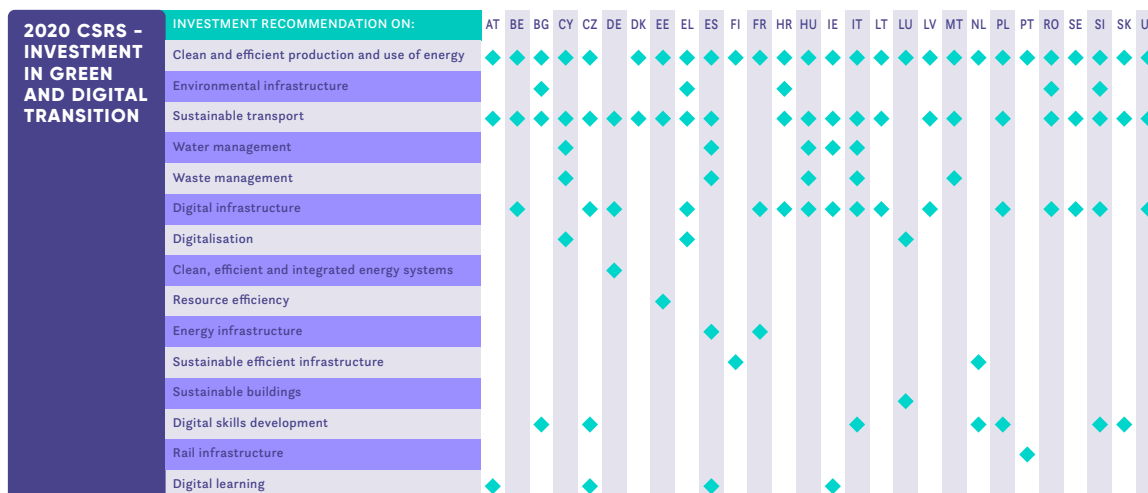
For the Eurozone countries, the dedicated procedure to monitor fiscal policy within given parameters (known as the Macroeconomic Imbalance Procedure (MIP)) uses additional monitoring tools (Alert Mechanism Report (AMR) in November, In-Depth Reviews (IDR) (= akin country reports, where necessary) and Stability and Convergence Programmes (SCPs) (=NRPs)) and it has an enforcement option beyond the standard ES cycle, which could lead to financial sanctions at the end of a process establishing non-compliance by a Member State (under what is known then as the “excessive imbalance procedure”). In comparison, this is a more detailed process with stronger follow-up and threat of consequences, which has led to better adherence by Member States.

THE GREENING OF THE EUROPEAN SEMESTER

The overarching goals guiding the Semester had until recently been defined the Europe 2020 strategy (adopted in 2010). The Europe 2020 strategy included EU level goals for a range of policy areas, including for climate and energy, which were being monitored under the Semester process (in addition to the monitoring processes under the respective thematic legislative acts implementing these goals, such as the Renewable Energy Directive etc.)³¹.

The European Green Deal acts as the successor to the Europe 2020 strategy in the way it provides guidance to EU policy-making including the European Semester. With the explicit goal of climate neutrality and overall sustainability as guiding themes, the shift is also affecting the governance tools in the Semester. The first visible sign was the renaming of the AGS into the “Annual Sustainable Growth Strategy” (ASGS) as of the 2020 edition that was published in December 2019,³² a few days after the publication of the European Green Deal.³³ In the ASGS, the Commission argued that the years of financial crisis management were over, implying that the economic governance system of the EU could now be refocused to long-term (social and environmental) challenges, summarising the central tenet in the phrase that an “economy must work for the people and the planet” (ASGS 2020, page 1). Environmental sustainability is explicitly mentioned as one of four main pillars to determine future economic policy, alongside “productivity gains, fairness and macro-economic stability” (ASGS2020, page 3).³⁴

Figure 4: European Commission overview of green and digital CRS in 2020



Source: European Commission (2020): Climate, energy and environmental aspects of the European Semester. Presentation by DG ECFIN.

This process of integrating sustainability into the ES process was also a theme in the “Economic Governance Review communication issued by the European Commission on February 5, 2020, just prior to the pandemic being felt in all of Europe. This was meant to launch a broad consultation process until the end of 2020 on ways to reform the European Semester.³⁵ However, this broader review was overtaken by the recovery agenda within a matter of weeks – which is addressed further below.³⁶

As a next specific change to implement the new approach, indicators measuring the SDGs were incorporated into the country reports³⁷ issued on February 26, 2020 with the winter package.³⁸ And the CSRs adopted in July 2020 included many actions addressing sustainable development concerns (see also Figure 2).³⁹

Despite the fact that the review process has not been implemented as planned (at least not thus far) due to the need to react to the Covid-19 crisis, European Commission started developing a new set of headline indicators for the European Semester. There is little public information available on this process. The consultative document on the 8th Environment Action Programme states that a “draft list of indicators was discussed with economic and finance representatives of the Member States in June 2020” (page 17). And in a DG ECFIN presentation to the Expert Group on Greening the European Semester⁴⁰ in October 2020 the work on these indicators was characterised as “a first starting point for the development of a toolkit that can be used for the analysis of the macroeconomic implications of the transition in the context of the European Semester”⁴¹. Whatever the status of this indicator development process, it would likely need to be connected with the recovery related processes, which are determining the development of the European Semester at the time of writing.⁴²

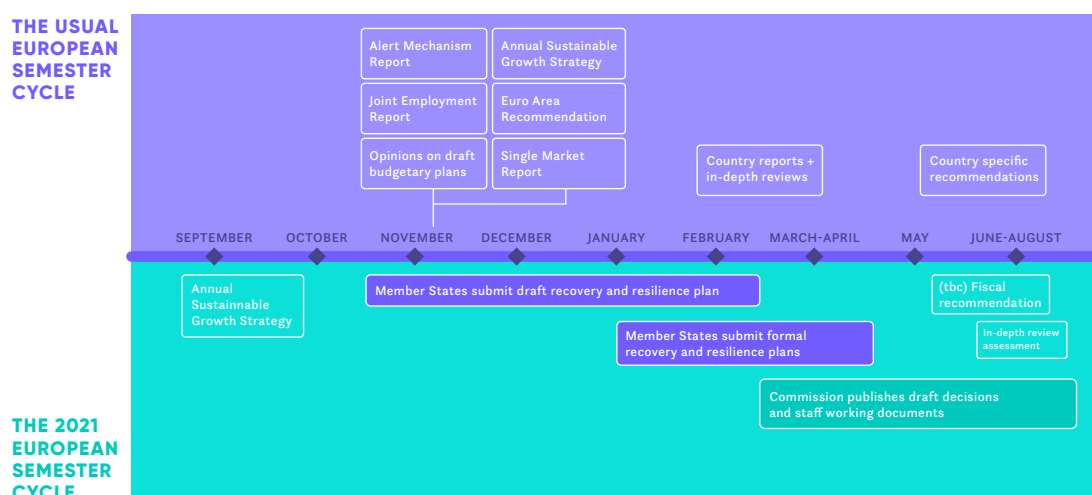
THE SEMESTER AS THE VEHICLE TO ORGANISE THE RECOVERY FUNDING

When the Covid-19 pandemic hit the European Union, the European Commission started to develop a joint response in coordination with Member States. The resulting economic recovery efforts created a new temporary recovery instrument called NextGenerationEU, with a total budget of 750 billion Euros. The vast majority of this funding (672.5 billion Euros) has been given a legal framework via the regulation on the Recovery and Resilience Facility (RRF)⁴³.

The RRF Regulation (RRFR) was proposed by the European Commission at the end of May 28, 2020 but it took until December 2020 for a compromise to be agreed between Council and Parliament. The final regulation obliges all Member States to develop National Recovery and Resilience Plans (RRPs) (Article 17 RRFR), in which describe their “reform and investment agenda” and define their own milestones and targets, based on guidance issued by the European Commission. The RRP’s have to undergo consultation and are ultimately adopted by Council (in 2021 expected for July). Updates to RRP’s can be submitted over time under specific circumstances.

Implementation of the process is to happen through the European Semester. For 2021, the usual ES cycle had had to be aligned to account for the development of RRP’s. The 2021 winter package did not include country reports. The RRP’s can be merged with NRPs (Article 18.3 RRFR) and need to include explanation on how they address CSRs (Article 18.4.b RRFR). After the cycle for 2021, which is adapted to allow for the development of the RRP’s, the future Semester process will be more regular, but feature additional elements connected to the recovery monitoring (see below).

Figure 5: Changes in elements and timing of the European Semester cycle for 2021



Source: European Commission: *European Semester 2021 - an exceptional cycle*.

CONNECTING CLIMATE TARGETS WITH THE RECOVERY SPENDING

The RRF is an attempt to put additional money into the economy to counteract negative economic effects from reduced public consumer spending and global trade by stimulating additional investments. The significance of this additional funding for climate policy is high: the additional expenditure under the recovery funds could and should be used to support the necessary investments in the transition towards climate neutrality. Failing to do so could create carbon lock-in effects that make the achievement of the climate targets harder and more expensive in the long-run.⁴⁴

The RRF regulation explicitly reiterates the commitment to European Green Deal and its goals - and the role of the European Semester that “should help achieve (them)” (Recital 5 RRFR). It references the 2030 climate targets and the climate neutrality goal in its general objective (Article 4 RRFR) and establishes the “green transition” (Article 3 RRFR) as one of six pillars for the scope of the RRF. Furthermore, it specifies that RRFs need to be consistent with “the information” provided in NECPs as key Member State documents outlining climate and energy policies and objectives.

In addition to these guardrails to direct funding towards climate related investments, a specific target has been inserted, similar to the one for expenditure under the Multiannual Financial Framework (MFF). A minimum of 37% of each RRF will have to go towards climate investments and reforms, counted following a methodology based on that for the MFF (and Cohesion funding, for example) using a list in an annex (VI) to the RRF regulation. Furthermore, the principle of “do no significant harm” established in the Sustainable Finance Regulation is to be applied in the RRFs. Annex V, which provides guidance for the Commission’s assessment of the national plans, lists several instances for its application. A separate technical guidance has been issued to support Member States in the correct understanding of its implications.⁴⁵ This will largely exclude expenditure related to fossil fuels, although exceptions are possible for specific cases under specific circumstances. In sum: some concrete provisions have been included in the RRF regulation to support climate-friendly investments and prevent harmful ones.⁴⁶ Whether these will be sufficient, will be determined in the implementation: what will Member States include in their plans and how strictly will the Commission assess them?

A SPECIFIC MONITORING FRAMEWORK FOR RECOVERY SPENDING

The RRF Regulation defines an elaborate monitoring framework that adds to and expands the processes in operation under the European Semester thus far.⁴⁷ While the legal text makes several references to the Semester in the context of the various elements of this monitoring framework, the specific connections are not fully spelled out and may have to be clarified by the Commission in the implementation process.

The main elements of the system are:

- The Commission assesses (initial and updated) national RRP and prepares an implementing decision for adoption by the Council (explicitly taking into account information from the Semester process and contained in NECPs). This **assessment** must include also the contribution to the green transition and the meeting of the 37% climate spending goal. The standard annual NRPs submitted under the Semester are not assessed by the Commission at present.
- **Progress reports** by MS twice a year in the context of the European Semester, with reference to the NRPs – without being clear about timing and format (national reporting is only once a year through NRPs). This is crucial insofar as disbursement of funds to Member States is explicitly linked to the achievement of agreed milestones and targets in the RRP (Article 24.2 RRF).
• The Commission is obliged to prepare a **progress report** to Parliament and Council on an annual basis (Article 31 RRF). In addition, it must prepare a **review report** by mid-2022 on the implementation of the RRF (Article 16 RRF), spelling out the extent to which the respective objectives have been achieved (including the 37% climate spending target). Furthermore, a so-called **Recovery and Resilience Dialogue** between the Council, Parliament and the Commission is established (Article 26 RRF) which takes place at the invitation of the Parliament, as often as every two months.
- In support of the progress reporting by Member States and the various reporting duties of the Commission, the RRF also mandates the development of **common indicators** (Article 29 RRF) and of a **recovery and resilience scoreboard** (Article 30 RRF) to monitor overall progress (including through the use of the common indicators). Both the common indicators and the scoreboard are to be adopted in legal form through separate delegated acts by December 2021.

INTEGRATION OF NET ZERO INDICATORS

The European Semester has used indicators for a whole range of assessments that need to take place during its annual cycle. They play a role in presenting the EU level state of play, as in the ASGS or the ARM. Member states may include them in the reporting done through their NRPs. Indicators are used to assess national progress in the country reports, for example. Accordingly, they also influence the definition of CSRs.

In the recovery process there are similarly three main uses. Overall EU level progress measurement in the RRF scoreboard, national choice of indicators to set targets and milestones in the NRPs and subsequent progress reporting, and the common indicators for country-specific progress measurement and assessments by the Commission.

BOX: Examples from the developed monitoring methodology (Part I) that would fit under a Semester/Recovery related monitoring system

	NET ZERO ELEMENT	ENABLER	SPECIFIC INDICATOR
	1. Zero carbon energy	Enabler 1 on supporting regulatory frameworks	Additional energy related investment (with sub-indicators for power grid, power plants and boilers, new fuels) [EUR]
	2. Sustainable agri-food system and land-use	Enabler 2 on increasing carbon removal through improved land use	Share of agricultural land under agroforestry [%]
	3. Net zero industrial transformation	Enabler 2 on unlocking value chains for material efficiency and circularity	Share of reused or recycled materials in basic material product demand [%]
	3. Net zero industrial transformation	Enabler 4 on infrastructure to enable the industrial transition	Share of industrial sites having access to hydrogen production and storage [%]
	4. Emission-free buildings	Enabler 1 on facilitating emission-free buildings	Recovery rate of construction and demolition waste (incl. sub-indicators for recovery for same purpose, up- or downcycling) [% of construction and demolition mineral waste recycled]
		Enabler 2 on raising demand for emission-free buildings	Public money going to building renovation (EU budget and other programmes) [EUR]
	5. Moving without emissions	Enabler 3 on urban and territorial planning and implementation	Infrastructure updates and additions (incl. roads, rail, bike-lines etc.) [km and/or as EUR invested; related to population]
	7. Net zero transition finance	Enabler 2 on enabling regulatory framework	Average cost of capital for sustainable investments
		Enabler 2 on enabling regulatory framework	Share of environmental tax revenue of public revenue (i.e. total tax and social contributions revenue) [%]
	8. Enabling technologies	Enabler 1 on fostering climate related research and innovation	Renewable energy RD&D [% energy RD&D]
	9. Lifestyle changes	Enabler 1 on raising collective knowledge on lifestyle impacts on the environment	Material footprint of consumption (with sub-indicators per materials) [tonnes of raw materials]
	10. Just transition	Enabler 2 on a proactive structural public policy	Share of public budget to support regions in transition [% of total budget]
		Enabler 3 on ensuring a just environmental pricing	Income share of the bottom 40 % of the population (with sub-indicator by gender) [% of income]
	11. Governance and political support	Enabler 3 on political and societal support	Public support for climate neutrality target [percentage of surveyed sample]
		Enabler 4 on reflexive interface for intra-EU coordination	Degree of follow-through with country-specific recommendations under EU climate governance processes (European Semester, NECPs, EU Climate Law) [e.g., scoring system]

There are thus several ways in which the net zero indicators could be used in the future implementation of the European Semester and the implementation of the recovery funding. Considering the extent to which the two processes have become integrated, it makes sense to think of solutions that can be applied to all and not just individual aspects.

A COMMON INDICATOR SET TO INFORM ALL RELATED ASSESSMENTS AND REPORTS

The most effective way to integrate a robust way of progress measurement towards climate neutrality into the process would be to develop a methodology that can be equally applied to the strategic status quo and outlook in the ASGS as well as checks on national progress in country reports, and to assess RRFs or progress reports and to inform country-specific recommendations to Member States. One overall indicator set or methodology for all these uses would streamline data gathering and progress measurement, reducing effort. The development of a broader list of sustainability indicators under the European Semester could be connected to the 8EAP headline indicators and merged with the need to develop common indicators under the RRF (and the scoreboard) – and then apply subsets of this broader concept to the recovery process and to other related monitoring processes, as necessary.

INCLUSION OF DEDICATED NET ZERO INDICATORS IN THE RRF SCOREBOARD

Progress towards a transformational objective such as climate neutrality cannot be measured through greenhouse gas data alone – and that information only arrives once a year and with temporal delay. The RRF scoreboard needs to include other elements that look beneath the surface at progress on the necessary changes – drawing inspiration from the approach presented in this report, for example.

CONCLUSION

The European Semester has started a process of integrating climate and sustainability goals more directly, taking the European Green Deal and its objectives as guidance. However, for the coming 5-6 years the Semester has been taken over by the recovery efforts to help guide and monitor the spending. Previous reform processes are on hold – or their status unclear. However, environmental concerns and climate specifically feature prominently in the recovery spending framework, with clear guidance to Member States. The recovery related monitoring framework is detailed and goes beyond the requirements under the Semester. Both of these processes have to be in line with efforts to become climate neutral for those to succeed. In addition to channelling investments and guiding reform processes, they also involve a different set of people (e.g. Finance ministries) that are not usually part of climate, energy or environmental policy.

As some of the specifics are to be adopted by the end of 2021, there is a window now to use this process for the overall greening of the European Semester.

At the same time, the future success of the European Semester's soft governance approach may require a strengthening of the current system to improve follow up to country-specific recommendations. Moving towards climate neutrality depends on structural reform implementation in Member States and a shift in economic policy. The recovery process has the potential to act as a precursor to this, as it has the ability to withhold funding if progress is insufficient. Transparency about progress or a lack thereof is important, but information itself with consequence may not be a sufficient driver for change.

POLICY RECOMMENDATIONS

- Develop a common set of indicators to cover climate and sustainability aspects to integrate in-depth net zero progress measurement in both recovery monitoring and the general European Semester processes (and their monitoring / reporting).
- Specifically include structural change indicators in the recovery and resilience scoreboard to represent change towards climate neutrality
- Explore ways to strengthen follow-up to lacklustre implementation of CSRs for the future of the European Semester in connection to progress monitoring – maybe via the stronger performance related nature of recovery spending.



THE MISSING DASHBOARD FOR THE EUROPEAN GREEN DEAL SHOULD MONITOR PROGRESS TO NET ZERO

BACKGROUND

With the European Green Deal, the EU has adopted a new political and economic strategy that is meant to put environmental and overall sustainability concerns at the heart of EU investments and policy-making. It defines a number of objectives, of which climate neutrality by 2050 is a central one, and includes a substantial list of initiatives to move towards implementation. It does not set out specific institutional changes or procedures to keep track of progress, except for one.

At the very end of the Commission communication that spells out the European Green Deal, there is a short sentence describing a simple monitoring process – at the end of the paragraph announcing the development of the 8th EAP described in an earlier section of this chapter. The announcement is this: “The Commission will also launch a dashboard to monitor progress against all of the European Green Deal objectives” (EGD, page 23).

At the time of writing, no such dashboard has materialised, nor is there information on its likely format or timing.

INTEGRATION OF NET ZERO INDICATORS

An overall dashboard on progress under the European Green Deal could measure progress in terms of intended activities implemented or started – and after the first 15 months, the result would certainly look impressive, considering the many strategies and some related legislative proposals published since December 2019. However, progress would certainly also need to be measured in terms of real change towards the main objectives, such as climate neutrality. Especially at the meta-level of looking at the main EGD objectives, **a simple single indicator such as greenhouse gas emissions reductions alone would not suffice to portray a real sense of progress towards the structural changes that need to happen.** A dashboard for EGD progress should use a sophisticated methodology to assess how much of that change is taking place underneath the surface, looking at enablers such as the ones presented in this report.

CONCLUSION

Monitoring EGD progress must feature climate neutrality in a prominent way. The methodology that would need to be adopted could also be used under the EU Climate Law and for the European Semester – and inform the climate dimension under the 8th EAP monitoring. The EGD monitoring could thus act as an integrating and unifying force that helps streamline related processes to reduce efforts.

POLICY RECOMMENDATION

- The European Commission should lead the development of a methodology to measure progress towards climate neutrality with a dedicated monitoring of structural change indicators – which could then be applied in all the relevant processes analysed in this report (EU Climate Law/ Energy Union governance, 8th Environment Action Programme, European Semester/Recovery process).

CONCLUSIONS:

HOW TO MAKE SURE WE ARE ON TRACK TOWARDS CLIMATE NEUTRALITY

A CONCEPT THAT LOOKS AT WHAT NEEDS TO HAPPEN AND MEASURES STRUCTURAL CHANGE

Measuring progress towards climate neutrality means looking beyond the development of greenhouse gas emissions overall or in individual sectors – and needs to be more sophisticated than the share of renewable energy in the system (although that is a crucial component). The approach defined in this set of reports proposes to apply a concept of measuring the underlying developments that enable the necessary structural change in key elements that together form a possible climate neutral future. Such an approach also needs to be applied in official EU monitoring systems that seek to measure progress towards the implementation of the European Green Deal – and its headline target of climate neutrality.

WINDOW WIDE OPEN: MANY PROCESSES COULD TAKE UP NET ZERO INDICATORS

The window of opportunity for the introduction of such an “structural change” approach in measuring progress via net zero indicators in EU policy processes is wide open in 2021. The 8th EAP wants to develop headline indicators by the end of the year. A delegated act with common indicators for the RRF should also be adopted by then. For the European Climate Law, a methodology to assess climate neutrality needs to be developed, which could inform also updates to NECPs being prepared in 2022 and 2023.



INTEGRATION OF DIFFERENT MONITORING FRAMEWORKS THROUGH A HARMONISED INDICATOR SET

As pointed out by the European Commission itself, this congregation of parallel processes seeking to measure similar and related issues represents a unique opportunity to integrate and harmonise data gathering and reporting. A common indicator set, including net zero indicators measuring structural change, could be applied (in sub-sets) for many similar but differentiated purposes, streamlining the underlying effort required and enhancing comparability and accountability. The same information and assessment matrix could inform the European Green Deal dashboard, the recovery scoreboard, Commission progress reports, country-specific recommendations and Member State planning processes and climate neutrality progress checks.

INTEGRATION NEEDS TO START NOW – PROCESSES MUST BE CONNECTED IN 2021

The overarching policy recommendation from this analysis is clear: the EU needs to develop a harmonised set of indicators to measure progress towards the goal of climate neutrality for use in the many different processes – and do so in the next 18 months. Timing is important: the recovery process and the 8EAP aim to adopt their indicator development by the end of 2021. At the very least, these processes need to be connected and aligned right away to avoid duplication and inconsistencies. If a new lead process (such as resulting from the EU Climate Law's implementation) cannot be established immediately, possibilities for a later integration must be kept open and should be explicitly anticipated. Development for a coherent progress measurement system has to start at the latest early in 2022 for use in the ECL's climate neutrality check in 2023.

A coherent and harmonised approach for measuring climate neutrality progress can and should be connected to and integrated in a broader assessment of progress under the European Green Deal and overall sustainable development goals.

ENDNOTES

- 1 European Parliament (2021): MEPs reach deal with Council on obligation for EU to be climate neutral by 2050.
- 2 European Commission (2020): Proposal for a regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law). COM(2020) 80 final.
- 3 Council of the European Union (2020): Proposal for a Regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law)-General approach, Brussels.
- 4 European Parliament (2020): Amendments adopted by the European Parliament on 8 October 2020 on the proposal for a regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law).
- 5 Duwe, Matthias; Evans, Nicholas (2020): Climate Laws in Europe: Good Practices in Net zero Management. Berlin, Den Haag.
- 6 European Council (2021) Proposal for a Regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) – Letter to the Chair of the European Parliament Committee on the Environment, Public Health and Food Safety (ENVI) (ST 8440 2021 INIT)
- 7 Evans, Nick; Matthias Duwe (2021): Climate governance systems in Europe: the role of national advisory bodies. Ecologic Institute, Berlin / IDDRI, Paris
- 8 For the 2020 targets, there had been separate national action plans for renewables and efficiency and none for the climate target – whereas NECPs now integrate policies for the three targets. In addition to a desired effect of more coherent policy (and lower administrative effort) through joined-up planning, these adjustment were due to a change in the renewables targets, which were no longer binding at national level and needed a new governance system to avoid gaps in pledged targets and implementation.
- 9 EU COM: National long-term strategies. Last accessed 8 March 2021
- 10 The first one was launched in 1973, the seventh ended in 2020. See Triconomics (2019): The evolution of the EU environment and climate policy framework: from the 6th to the 7th EAP. for an overview
- 11 European Commission (2020): Proposal for a decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030. COM/2020/652 final
- 12 Updates to the procedure available at EUR-Lex: Procedure 2020/0300/COD.
- 13 European Parliament and Council (2013): Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’ Text with EEA relevance.
- 14 Only one of the State of the Environment Reports (SOER) the EEA issues every five years fell directly into the duration of the implementation phase of the 7EAP, in 2015. SOER 2020 was published in May 2020, when the 7EAP was nearing its end. It can thus be taken as a progress assessment report – but not one that was able to deliver information for action during the 7EAP but mainly points out priority issues to be addressed in the 8EAP.
- 15 Only three such reports could be found online – for 2016, 2017 and 2018. A dedicated page on the EEA website even only shows two out of those three – see European Environment Agency: Annual Indicator Report Series (AIRS) — In support to the monitoring of the 7th Environment Action Programme.
- 16 COM (2019): Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the evaluation of the 7th Environment Action Programme. COM/2019/233 final, page 3.
- 17 See European Commission (2021): Consultative paper on the proposed approach and architecture for the 8th EAP monitoring framework.
- 18 European Commission (2019): The European Green Deal. COM(2019) 640 final, page 23
- 19 European Commission (2021): Consultative paper on the proposed approach and architecture for the 8th EAP monitoring framework.
- 20 EP draft report and further progress in the procedure available at European Parliament: 2020/0300(COD).
- 21 European Parliament (2021): Draft report on the proposal for a decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030. Recital 17b, Amendment 22.
- 22 European Council (2021): Proposal for a Decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2030 - Mandate for negotiations with the European Parliament. Interinstitutional File: 2020/0300(COD)
- 23 See among others: Rüdinger, Andreas; Voss-Stemping, Judith; Sartor, Oliver; Duwe, Matthias; Averchenkova, Alina (2018): Towards Paris-compatible climate governance frameworks. An overview of findings from recent research into 2050 climate laws and strategies. Studies N°04/18, IDDRI, Paris, France. Duwe, Matthias; Evans, Nicholas (2020): Climate Laws in Europe: Good Practices in Net zero Management. Berlin, Den Haag. Evans, Nick; Matthias Duwe (2021): Climate governance systems in Europe: the role of national advisory bodies. Ecologic Institute, Berlin / IDDRI, Paris
- 24 See for example Charveriat C., Bodin E. and Planells O. (2021) Targets and indicators for a meaningful implementation of the European Green Deal. Think2030 policy paper by the Institute for European Environmental Policy, Brussels and Charveriat, C. and Bodin, E. (2020) Delivering the Green Deal: the role of a reformed Semester within a new sustainable growth strategy for the EU, the Institute for European Environmental Policy (IEEP).
- 25 The European Semester was legally established in Article 2a of SGP Regulation (EU) No 1175/2011, as part of the amendments to Regulation (EC) No 1466/97. The Semester is the most recent step in the current framework for economic and fiscal surveillance (COM (2020): Economic governance review. COM(2020) 55 final). See also Delivorias, Angelos; Scheinert, Christian (2019): Introduction to the European Semester: Coordinating and monitoring economic and fiscal policies in the EU. European Parliamentary Research Service
- 26 There are many sources of information on the European Semester and relevant studies (see for example European Court of Auditors (2020): The European Semester – Country Specific Recommendations address important issues but need better implementation). The main reference for the specifics of the ES cycle are from the Commission’s web pages on the ES, such as this one on the timeline: European Commission: The European Semester timeline.

- 27 The AGS has now been amended to be called the Annual Sustainable Growth Strategy (ASGS) as will be explained below.
- 28 The Autumn Package also includes the Alert Mechanism Report (AMR) and the employment and budget related reports by the Commission. See EU COM: Autumn Package.
- 29 Just over 6% of all CSRs over the period 2011-2017 had been “fully implemented” or achieved “substantial progress” – see European Court of Auditors (2020): The European Semester – Country Specific Recommendations address important issues but need better implementation, page 22.
- 30 European Court of Auditors (2020): The European Semester – Country Specific Recommendations address important issues but need better implementation, page 36.
- 31 The energy and climate elements that used to be part of the Semester were excluded from it in 2017/18 in anticipation of the new Energy Union and Climate Action governance framework being established by the Governance Regulation.
- 32 European Commission (2020): Annual Sustainable Growth Strategy 2020. COM(2019) 650 final.
- 33 The publication of the autumn package took place one month later than usual – supposedly to be able to build on the EGD and maybe due to a delay in the taking office of the von der Leyen Commission.
- 34 For a specific proposal on how this new agenda could be implemented in the European Semester, including the form of new indicators, see Charveriat, C. and Bodin, E. (2020) Delivering the Green Deal: the role of a reformed Semester within a new sustainable growth strategy for the EU, the Institute for European Environmental Policy (IEEP)
- 35 European Commission: Economic governance review.
- 36 See also Climate & Company (2021) The European Semester and why it matters for the EU Green Deal. Berlin
- 37 Country reports for 2020 available at EU COM: 2020 European Semester: Country reports.
- 38 European Commission (2020): European Semester 2020.
- 39 European Commission (2020): Climate, energy and environmental aspects of the European Semester. Presentation by DG ECFIN/ Asa Johannesson Lindén
- 40 ibid
- 41 European Commission (2020): Climate, energy and environmental aspects of the European Semester.
- 42 Observers have made concrete proposals for a new sustainability scoreboard for the European Semester, see IEEP (2020): Targets and indicators for a meaningful implementation of the European Green Deal.
- 43 EU (2021): Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility.
- 44 Shan, Yuli; Ou, Jiamin.; Wang, Daoping et al. (2021): Impacts of COVID-19 and fiscal stimuli on global emissions and the Paris Agreement. Nat. Clim. Chang.11, 200–206.
OECD (2020): Green budgeting and tax policy tools to support a green recovery.
- 45 European Commission (2021): Commission Notice Technical guidance on the application of ‘do no significant harm’ under the Recovery and Resilience Facility Regulation 2021/C 58/01.
- 46 European Commission (2021): Commission Notice Technical guidance on the application of ‘do no significant harm’ under the Recovery and Resilience Facility Regulation 2021/C 58/01.
- 47 For a detailed elaboration on the framework, see Climate & Company (2021) Assessment and monitoring in the Recovery and Resilience Facility – how does it work and how can it deliver the Green Deal? Berlin

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