

European Scientific Advisory Board on Climate Change

Annual work programme 2023

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1 The European Scientific Advisory Board on Climate Change

1.1 Establishment of the Advisory Board

The transition to climate neutrality and climate resilience poses an unprecedented challenge for the EU and its Member States: they must reconcile short-term actions on mitigation and adaptation with long-term goals, while tracking progress to remain on course.

Many countries have turned to two concrete policy innovations: framework climate laws and national advisory bodies. Climate laws formalise government processes, often enshrining iterative cycles for policymaking, planning and progress monitoring, and assigning responsibilities to new or existing institutions. Advisory bodies broaden the scope of stakeholder consultation and, especially in the case of independent scientific councils, inject evidence-based inputs into policy formulation.

Likewise, at the European level, the European Climate Law ⁽¹⁾, adopted in June 2021, enshrines into law the EU's objective to become climate neutral and climate-resilient by 2050, and establishes a European Scientific Advisory Board on Climate Change (the 'Advisory Board') to underpin the EU's climate action and efforts with independent scientific expertise and the best available, up-to-date and transparent evidence on possible pathways, targets and policy measures. It is formally established through an amendment of the founding regulation of the European Environment Agency (EEA) ⁽²⁾, introduced in Article 12 of the European Climate Law.

The members of the Advisory Board give their positions independently of the Member States and the EU institutions.

1.2 Role of the Advisory Board

Article 3(1) of the European Climate Law defines the role of the Advisory Board as follows:

The European Scientific Advisory Board on Climate Change (the 'Advisory Board') shall serve as a point of reference for the [European] Union on scientific knowledge relating to climate change by virtue of its independence and scientific and technical expertise.

1.3 Work and tasks of the Advisory Board

The tasks of the Advisory Board are broadly defined in Article 3(2) of the European Climate Law. They include:

- (a) considering the latest scientific findings of the IPCC reports and scientific climate data, in particular with regard to information relevant to the European Union (EU);
- (b) providing scientific advice and issuing reports on existing and proposed EU measures, climate targets and indicative greenhouse gas budgets, and their coherence with the objectives of this Regulation and the EU's international commitments under the Paris Agreement;
- (c) contributing to the exchange of independent scientific knowledge in the field of modelling, monitoring, promising research and innovation which contribute to reducing emissions or increasing removals;
- (d) identifying actions and opportunities needed to successfully achieve the EU climate targets;
- (e) raising awareness on climate change and its impacts, as well as stimulating dialogue and cooperation between scientific bodies within the EU, complementing existing work and efforts.

¹ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999.

² Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network.

To provide robust and sound evaluation and advice and to explore pathways to achieve climate neutrality and climate resilience in a just, socially balanced, fair and cost-effective manner, the Advisory Board is guided in its work by the best available and most recent scientific evidence, including the latest reports of the IPCC, IPBES and other international bodies. It also builds on data and knowledge available from European research, technology and innovation networks. The Advisory Board seeks to avoid any overlap in its mission with that of the IPCC at international level ⁽³⁾, and to complement the work of the EEA. It also considers, where available, the work of national climate advisory bodies.

The Advisory Board shall follow a fully transparent process and make its reports publicly available.

1.4 Designation and composition of the Advisory Board

On 24 March 2022, the EEA Management Board designated the 15 members of the Advisory Board, following an open, fair, and transparent selection procedure. The members were appointed in a personal capacity for a term of four years, renewable once. There are no more than two members of the Advisory Board holding the nationality of the same Member State. The 15 independent senior scientific experts composing the Advisory Board are:

- Maarten van Aalst (Dutch)
- Constantinos Cartalis (Greek)
- Laura Díaz Anadón (Spanish, American)
- Ottmar Edenhofer (German)
- Vera Eory (Hungarian, British)
- Edgar Hertwich (Austrian)
- Jette Bredahl Jacobsen (Danish)
- Lena Kitzing (Danish, German)
- Elena López-Gunn (Spanish, British)
- Lars J. Nilsson (Swedish)
- Suraje Rauto Dessai (Portuguese, British)
- Keywan Riahi (Austrian)
- Joeri Rogelj (Belgian)
- Nicolaas Schrijver (Dutch)
- Jean-Francois Soussana (French)

[Short bios of the members](#) of the Advisory Board are presented on the EEA website.

At its third meeting of 16-17 May 2022, the Advisory Board elected from among its members Ottmar Edenhofer as its first chairperson, for a period of four years. Although not a requirement of the European Climate Law, the Advisory Board also elected at its fourth meeting of 28 June 2022 Laura Díaz Anadón and Jette Bredahl Jacobsen as two vice-chairs to the board.

1.5 Resources of the Advisory Board

The Advisory Board's expenditure is included in the EEA budget, and the Advisory Board acts independently in discharging its tasks. This expenditure supports the functioning of a Secretariat, hosted by the EEA, of up to 14 additional full-time staff. It also includes an annual functioning budget of kEUR 500 (additional to salaries) to support a wide range of tasks, including communication, website maintenance, publishing reports, dissemination and outreach, Advisory Board members'

³ See recital 24 of the European Climate Law

travel and accommodation expenses, as well as honorarium for Advisory Board members in relation to e.g. participation of meetings.

2 Implementation of the 2022 work programme

2.1 Short overview of the 2022 work programme

On 28 June 2022, the Advisory Board adopted its work programme for the second half of 2022, in which it included 6 key tasks:

1. Support the EU's input to the 2023 Global Stocktake
2. Support the determination of a 2040 objective and a 2030-2050 greenhouse gas budget
3. Policy responses to the current energy and food situation in Europe
4. Explore sectoral mitigation solutions in the agriculture and forestry sectors, and their links with adaptation
5. Pursue the strategic and operational development of the Advisory Board
6. Engage with experts and stakeholders

The work programme emphasized that the Advisory Board would operate in 2022 with limited time and resources: by the time the work programme was adopted, only 6 months of time remained, the Secretariat to the Advisory Board was still under development and partially staffed, and the Advisory Board still had to define and develop several aspects of its organisation and work.

Shortly after the adoption of its work programme, the Advisory Board decided to take on an additional task, due to its high relevance in relation to EU climate neutrality and its legal nature. On 30 May 2022, the European Parliament and the Council adopted the revised Trans-European Networks for Energy regulation (Regulation (EU) 2022/869, hereafter TEN-E), which includes invitations to the Advisory Board to provide guidance and recommendations on a number of issues. The TEN-E regulation is essential to steer significant investments in the EU's future energy infrastructure, including in natural gas pipelines, hydrogen networks, renewable energies, smart grids, and in the climate resilience of the energy infrastructure. As these will have a real and meaningful impact on the EU's climate transition, the Advisory Board decided to accept the invitation and added work on the TEN-E regulation to its activities in Fall 2022, even if it was not included in its work programme. Taking on this additional task required reprioritisation of other ones and therefore had an impact on the progress achieved on those tasks in the work programme, as detailed below.

2.2 Deliveries in 2022

An overview of the 2022 deliveries on each of the tasks is provided below.

1. Support the EU's input to the 2023 Global Stocktake

2022 work programme: *Support the EU's input to the 2023 global stocktake, by providing timely and relevant input to the European Commission's report assessing the collective progress made by all Member States towards climate neutrality and on adaptation, and the consistency of EU and national measures to achieve EU climate neutrality and progress on adaptation. In 2022, the Advisory Board would establish a methodology for this, with the aim to publish a robust report in 2023 to serve as input for the Commission's report which is due on 30 September 2023.*

Actions in 2022: In line with its 2022 work programme, the Advisory Board clarified the scope of its input to the Commission's 2023 assessment. It outlined the main steps of its approach, as a basis for its work on this task in 2023. The Advisory Board aims to publish an output by mid-June 2023 at the latest.

2. Support the determination of a 2040 objective and a 2030-2050 greenhouse gas budget

2022 work programme: *Support the determination of a 2040 target and a 2030-2050 greenhouse gas budget, by providing relevant and timely input to the Commission's proposal which is due by May 2024 the latest. Also here, the work programme foresaw the work to start in 2022, but the final output to be published only in 2023.*

Actions in 2022: The Advisory Board decided to proceed in two steps:

- In the autumn 2022, the Advisory Board prepared a first output outlining relevant guiding principles for setting the EU's 2040 reduction objective and related projected 2030-2050 greenhouse gas budget. This first output will be published in early 2023.
- The Advisory Board plans to publish in Spring 2023 a second output, with a quantified range of recommended 2040 reduction objectives, based on the guiding principles as set out in its first output.

The reason for this two-stepped approach is timing: as the European Commission is planning to start its preparatory work on the 2040 reduction objective as soon as early 2023, the Advisory Board already wanted to provide relevant and robust inputs taking into account latest scientific findings before the end of 2022.

3. Policy responses to the current energy and food situation in Europe

2022 work programme: *Address policy responses to the current energy and food situation in Europe, by providing meaningful advice regarding the discussions, proposals and decisions taken at the EU and national levels to respond to the current worldwide and EU situation resulting in particular from the Ukraine crisis. The work programme did not specify the type and timing of the output(s) it would deliver on this task.*

Actions in 2022: The Advisory Board worked actively to map and assess the different types of policy responses which have been considered or implemented at both the EU as well as the national level in context of the energy and food situation in Europe. Main focus of the assessment was the (in)consistency of different types of response policies with the EU's trajectory towards its 2030 and 2050 climate objectives. The Advisory Board will publish its findings and recommendations in early 2023.

4. Explore sectoral mitigation solutions in the AFOLU sector

2022 work programme: *Explore sectoral mitigation solutions, in particular for the AFOLU sector and their links with adaptation. The aim is to investigate key aspects of climate change mitigation in the AFOLU sector, such as their potential contribution to further emission reductions and carbon dioxide removals, their links with adaptation and resilience to climate change, and the governance of carbon dioxide removals. A first output on this matter was planned for 2023.*

Actions in 2022: Work on this task started late in 2022, with an initial scoping of the task and identification of potential synergies with other tasks. More substantial work and analysis will be developed in 2023.

5. Strategic and operational development of the Board

2022 work programme: *Pursue the strategic and operational development of the Advisory Board, by clarifying several of its strategic objectives and establishing working procedures to achieve its goals and mandates in an efficient and robust manner. Furthermore, it aimed to establish a data infrastructure and develop a visual identity, website and communication tools.*

Throughout the second half of 2022, the Advisory Board and its Secretariat have worked to advance the strategic and operational development of the Board. Key results include:

- Adoption of the Rules of Procedure to govern the work of the Advisory Board on 28/8/2022
- Progress on the overall strategy of the Advisory Board – including its vision, mission – to help steer and prioritize the work of the Advisory Board.
- Progress on sub-strategies for communication and stakeholder engagement, to support the overall strategy of the Advisory Board.
- Progress on visual identity and development of the Advisory Board’s own website to support its communication and outreach.

6. Engage with experts and stakeholders

2022 work programme: *Engage with experts and stakeholders, with the view to clarify mutual expectations, explore partnerships and plan joint work where relevant. In particular the work programme foresaw the establishment of a regular dialogue with EU institutions, a relationship with representatives from national climate change advisory bodies, and to interact with civil society representatives.*

Actions in 2022: The Advisory Board and its Secretariat have regularly interacted and engaged with experts and stakeholders, which helped clarify mutual expectations and gain useful inputs to support its work. Key activities in this domain are:

- Regular interactions with EU lawmakers to help frame the role of the Advisory Board in the different legislative proposals under the Fit for 55 package. The main aim of these interactions was to preserve the mandate and independence of the Advisory Board, as provided under the European Climate Law, in new legislation.
- Organisation of a hybrid conference on 26.10.2022 in Copenhagen, with representatives from 12 national climate advisory councils from EU countries. The event aimed to identify common ground amongst various European councils, facilitate sharing of practices and explore areas for future coordination and cooperation.
- Organisation of a side event at COP27 on 15.11.2022: “The European Scientific Advisory Board on Climate Change: how independent scientific advice can strengthen climate action”
- Publication of a call for evidence for scenario data and results to underpin the Advisory Board’s work on the 2040 objective and 2030-2050 greenhouse gas budget
- Regular interactions with experts and key stakeholders to provide inputs to the Advisory Board’s work in context of the TEN-E regulation
- Decision to become a member of the International Climate Councils Network (ICCN), and participation in online meetings of the network.

7. Guidance on the implementation of the TEN-E regulation

2022 work programme: not mentioned.

Actions in 2022: The TEN-E regulation requires network operators (ENTSO-E and ENTSO-G) to develop Ten-Year Network Development Plans (TYNDP’s). These TYNDP’s have to be based on scenarios of future energy supply and demand, which need to be aligned with the Union’s 2030 targets for energy and climate and its 2050 climate neutrality objective. The European Union Agency for the Cooperation of Energy Regulators (ACER) is tasked with providing guidance on how these scenarios need to be developed. The TEN-E regulation invites the Advisory Board to contribute to the planning process by providing an objective, science-based input on how to ensure compliance of these scenarios with the EU’s climate objectives.

On 14/11/22, the Advisory Board published its “Advice on scenario guidelines for trans-European networks for energy”, which includes 6 key recommendations to be considered by ACER for inclusion in the Scenario Guidelines. This marks the first official publication of an output by the Advisory Board. As ACER is expected to publish its Scenario Guidelines by 24 January 2023, the deadline for input from the Advisory Board was set at 14 November 2022. Work on this task was prioritized to ensure a timely publication.

3 Policy agenda for 2023

In order to maximize the relevance of its contributions to the EU climate policy framework, the Advisory Board aims to enshrine its 2023 work programme on the expected policy agenda for that year.

With the negotiations on the different initiatives under the Fit for 55 package nearing their end, it is expected that the focus of the EU climate policy agenda will shift from **policy development to policy implementation**. In addition, 2023 will also be an important year for the **evaluation of progress and policy consistency** towards climate objectives, both at the EU as at the national level. Finally, 2023 will mark the start of the preparations for the EU’s **post-2030 climate regime**, as well as some **new policy initiatives in the energy domain** which are also relevant for the EU’s climate transition.

3.1 Policy implementation: Fit for 55

Regarding the **Fit for 55 package**, negotiations have well advanced on the different legislative proposals since the adoption of the Advisory Board’s 2022 work programme. By end 2022, EU lawmakers reached political agreements on major elements of the package, including the revision of the Emissions Trading System, the Effort Sharing Regulation, the LULUCF Regulation, the Renewable Energy Directive, the Energy Efficiency Directive, the Energy Performance for Buildings Directive, the Regulation on CO₂ standards for cars and vans, the Carbon Border Adjustment Mechanism, the Social Climate Fund, the FuelEUAviation regulation, the FuelEUMaritime regulation and the Alternative Fuels Infrastructure regulation. Negotiations on other files is still ongoing, including on the Energy Taxation Directive. With the majority of the negotiations now concluded or close to conclusion, the **focus will shift towards implementation**. In several of the legislative files under the FF55 package, legislators have included **references and invitations to the Advisory Board** to provide **input and advice for their future implementation and revision**.

3.2 Policy evaluation: European Climate Law and Governance Regulation

Furthermore, 2023 is a key year for **policy evaluation** under both the European Climate Law and the Governance Regulation.

By 30 September 2023, the Commission is required by the European Climate Law to assess and report on:

- the **collective progress** made by all Member States towards achieving climate-neutrality and enhancing climate adaptation (art. 6.1)
- the **consistency of Union measures** with the climate-neutrality objective and progress on adaptation (art. 6.2)
- the **consistency of national measures** – as included in the National Energy and Climate Plans and National Long-Term Strategies – with the climate-neutrality objective and progress on adaptation (art. 7)

The Commission’s assessment on the three points above will be based, *inter alia*, on data reported by EU Member States as well as reports of the EEA, the Advisory Board and the Commission’s Joint Research Centre.

In parallel, 2023 is also a key year under the **Governance Regulation**, as Member States are required to **update their National Energy and Climate Plans (NECPs)** by 30 June 2023. The updated NECPs will have to reflect the increased ambition levels under the EU Green Deal and subsequently the RePowerEU plan, which translates into more ambitious targets under the Effort Sharing Regulation, the Renewable Energy Directive and the Energy Efficiency Directive. The **Commission is mandated to assess and provide recommendations** on the updated (draft) NECPs by end 2023 at the latest, after which Member States are required to finalize the update by 30 June 2024. The Governance Regulation does not provide a specific role for the Advisory Board for this process.

3.3 Policy development: post-2030 climate framework and energy policies

The European Climate Law requires the Commission to submit a **proposal for a 2040 climate objective** at the latest within six months of the first global stocktake, together with a separate report on the projected indicative Union greenhouse gas budget for the 2030-2050 period. As the global stocktake is expected to be concluded at COP28 in November 2023, the Commission's deadline would be set in May-June 2024. However, with the European Parliament elections planned for Spring 2024, the Commission's proposal on a 2040 objective is expected in Q1 of 2024 at the latest, and preparatory work is expected to start as soon as early 2023. The **Commission's proposal for a 2040 target as well as its report on an indicative Union greenhouse gas budget shall be based, *inter alia*, on reports and advice of the Advisory Board.**

In addition, on 30 November 2022, the Commission made a proposal for a Regulation on an EU certification for carbon removals, i.e. the capture and storage of CO₂ from the atmosphere. This proposal includes a number of solutions to remove carbon from the atmosphere, including for example carbon farming (agricultural practices that help store extra carbon in the soil).

3.4 Commission's 2023 work programme

Finally, the 2023 political agenda will also be shaped by the Commission's work programme, which was published in October 2022. This work programme includes two legislative initiatives in the energy domain, which have strong links with the climate agenda and could therefore be relevant for the Advisory Boards work programme. By March 2023, the Commission is planning to publish a proposal to **review the EU's electricity market**, with the aim to decouple electricity and gas prices. As this review will shape both the business case for renewable energy producers as for electrification pathways, its implications on the climate transition are highly relevant. In addition, the Commission will also propose to create a new **European Hydrogen Bank**, which will invest €3 billion to kick-start a hydrogen market in the EU. Other planned initiatives which might have a link with the climate agenda are the mid-term review of the EU's Multiannual Financial Framework, and actions to reduce waste and its environmental impact.

4 Annual work programme 2023

4.1 Framing elements for the 2023 annual work programme

The policy agenda as presented in section 3 is the first essential framing element for the work of the Advisory Board for 2023. In accordance with its mandate, the Advisory Board is expected to guide and advise on existing and proposed policies having an impact on the achievement of EU's long-term climate goals.

Available resources are another important element which continues to be relevant in the Advisory Board's 2023 annual work programme. While its 15 appointed members represent the first resource of the Advisory Board, the staffing of the Advisory Board Secretariat is still ongoing. By end 2022, the Secretariat has staffed 8 out of the envisaged 14 FTE's.

Finally, several aspects of the organisation and work of the Advisory Board remain to be further defined and developed throughout 2023. Whereas the Advisory Board made good progress in 2022 to define its main strategy and working methodologies, more detailed implementation procedures will still have to be elaborated and finalized in the course of 2023.

Considering these elements and the need for the Advisory Board to strategically prioritize its work, the main aim of this annual work programme is to set a strong foundation and basis for the activities of the Advisory Board, guided by 1) its mandate as included in the European Climate Law, 2) its strategy as adopted end 2022, and 3) the political agenda for 2023.

4.2 Activities

In addition to finalising its own establishment, the Advisory Board intends to focus its 2023 work on the following four axes:

1. Provide input and advice to ensure an **effective implementation of agreed policies**, in context of:
 - a. The European Climate Law, including providing input to the Commission's consistency assessment of EU policies and the Commission's proposal on 2040 emissions target (actions 4.2.1, 4.2.2)
 - b. the Fit for 55 package (actions 4.2.3)
 - c. the TEN-E regulation (action 4.2.4)
2. **Continue work on mitigation options initiated in 2022, with a focus on the agriculture, land use and forestry sectors, as well as carbon dioxide removals** (actions 4.2.5 and 4.2.6)
3. **Scope further activities on adaptation** (action 4.2.7)
4. **Continued engagements with experts and stakeholders**, including an active outreach to experts from Central and Eastern European Member States (Action 4.2.8)

In addition to the key tasks described below, the Advisory Board will continue to follow up on political developments and new scientific insights and will provide relevant advice to EU policy makers where relevant, subject to time and resource availability.

4.2.1 Input to the proposal of a 2040 target and 2030-2050 greenhouse gas budget

The Advisory Board will continue its work to provide relevant and timely input to the Commission's proposal of a 2040 target and report on a greenhouse gas budget for the period 2030-2050, as already foreseen in its 2022 work programme.

The Advisory Board will provide an assessment and recommended range of 2040 reduction objectives (and related to that, an indicative 2030-2050 greenhouse gas budget), based on latest scientific findings and the guiding principles presented in its first output on the topic (see point 2 in section 2.2). It aims publish this assessment by April 2023, to ensure timely input for the Commission's proposal early 2024.

4.2.2 Input to the Commission's assessment of progress and policy consistency

As envisaged in its 2022 work programme, the Advisory Board will continue its work to provide relevant and timely input to the European Commission's report assessing the collective progress made by all Member States towards climate neutrality and on adaptation, and the consistency of EU and national measures to achieve EU climate neutrality and progress on adaptation. In particular, the Advisory Board will continue developing its assessment methodology and implement it to identify and assess potential policy gaps, policy ambition gaps as policy implementation gaps, with a focus on the EU level.

The Advisory Board's assessment and recommendations will be published in a report. Considering that the Commission's progress report is due by 30 September 2023, the Advisory Board aims at a publication of this report by June 2023 at the latest.

4.2.3 Supporting the implementation of legislative files of the Fit for 55 package

Several of the legislative initiatives which were negotiated under the Fit for 55 package contain references to the Advisory Board, providing an opportunity for the Advisory Board to provide input for their implementation and/or future review. These provisions are always formulated in such a way that they do not impose new tasks on the Advisory Board but provide an opportunity for the Advisory Board to provide inputs at its own initiative, to ensure consistency with its mandate under the European Climate Law.

Political agreements on these elements of the Fit for 55 package were only reached in the fourth quarter of 2022, with final texts not available at the time of preparation of this work programme. The Advisory Board will reflect on the potential input and advice it is invited to provide, and aims to make a prioritization of these different tasks by Q1 of 2023, taking into account the following:

1. the relevance of the task in context of the EU's 2050 climate objectives,
2. the policy agenda and the relevant timing for the different tasks,
3. the Advisory Board's strategy, and
4. the Advisory Board's available resources and in-house competences.

4.2.4 Further input to the EU's energy network development planning process (TEN-E)

Following the publication of its recommendations to ACER regarding the guidelines on scenario development, the Advisory Board will continue to take part in the EU energy network development planning process set out in the revised TEN-E regulation.

The Advisory Board will assess the consistency of the new draft scenarios, to be developed by ENTSOs in 2023 to underpin their network development plans, with the EU's 2030 and 2050 climate objectives, as well as with its key recommendations to ACER. On that basis, it will provide an opinion with recommendations to ENTSOs within three months after reception of the draft scenarios.

By end July 2023, the Advisory Board will also provide an opinion with recommendations on the cost-benefit analysis methodologies developed by the ENTSOs to assess and select projects for the ten-year network development plans.

Every two years, ENTSOs are required to develop new scenarios in line with these guidelines, in order to underpin their TYNDPs. The new scenarios will have to be developed by Q1 2023. The TEN-E regulation provides an opportunity for the Advisory Board to review these scenarios, assess their compatibility with the EU's 2030 and 2050 climate objectives, and provide opinions where relevant. The ENTSOs then have the possibility to review and finalize their scenarios based on the opinion of, inter alia, the Advisory Board.

4.2.5 Exploring sectorial mitigation solutions in the agriculture sector, with links to the forestry sector and to adaptation

After some delays in 2022 due to shifting priorities (mainly the additional tasks in context of the TEN-E regulation), the Advisory Board will advance its work on mitigation solutions and greenhouse gas emission pathways in the agriculture sector.

The Advisory Board will identify and assess potential mitigation pathways, their potential contributions to further greenhouse gas reductions in that sector, their links with adaptation and resilience to climate change. In doing so, it will adopt a systemic approach covering relevant socio-economic aspects, such as the demand side. The assessment will also consider the interaction

between agricultural and forestry practices to mitigate emissions and enhance carbon sinks. The Advisory Board would aim at delivering a first output on this matter by the end of 2023.

4.2.6 Exploring options to enhance carbon dioxide removals in the EU

Given the increasing role that carbon dioxide removals are expected to play for the EU to achieve climate neutrality, the Advisory Board will explore options for their enhancement. This will include an analysis of their governance at the EU and national level. The assessment will focus on two main pathways for enhanced carbon dioxide removals: enhancing carbon sinks in the LULUCF sector, and deploying technological solutions such as bio-based energy with carbon capture and direct air capture. Following scoping work in 2023, the Advisory Board would aim at delivering a first output on this matter in 2024.

4.2.7 Assessing progress and policy consistency on climate adaptation

Given the increasingly severe impacts of climate change on ecosystems and society in the EU, the Advisory Board aims to provide policy-relevant recommendations on how to increase adaptation efforts and enhance the EU's resilience against current and future impacts. To this end, it will consider metrics to measure progress towards the climate adaptation goals, and an assessment of the degree of climate adaptation mainstreaming in relevant EU policies. Following scoping work in 2023, the Advisory Board would aim at delivering a first output on this matter in 2024.

4.2.8 Engaging with experts and stakeholders

The Advisory Board will continue to engage with and consult a range of key relevant stakeholders.

It will maintain its regular dialogue with EU institutions (the European Commission, the European Parliament, and the Council of the EU) to closely monitor and improve understanding of the relevant policy processes and policy questions that could benefit from scientific advice. It will in particular engage with these institutions on the topics covered by activities 4.2.1 to 4.2.5 mentioned above.

Furthermore, after a successful first conference in October 2022, the Advisory Board will continue to engage with National Advisory Councils where relevant to identify areas for coordination and cooperation. In doing so, it will avoid overlap with other existing networks such as the ICCN, of which the Advisory Board is also an active member.

Thirdly, the Advisory Board aims to reach out to the scientific community to identify ways of collaborating and harvesting the relevant data and knowledge available in the European Union. The Advisory Board intends for example to set up a network of experts, composed of members which have in-depth expertise on the topics covered by the Advisory Board's work programme. An option considered is to focus this network on experts from Central and Eastern European Member States, as this region is currently underrepresented in the composition of the Board.

Finally, the Advisory Board will also interact with civil society representatives, such as environment, consumer and climate NGOs, as well as with private sector representatives, where relevant.