RISING TO THE CHALLENGE

EU actorness in climate policy and its global impact

Julia Teebken and Klaus Jacob

CEPS IN-DEPTH ANALYSIS

April, 2023 - 08

SUMMARY

EU climate policy has grown into an established policy field which generates its political relevance particularly at the international level. Over the past three decades, a complex global governance architecture has emerged and climate policy has been mainstreamed into many different policy areas because of its cross-cutting nature.

This CEPS In-Depth Analysis report identifies key areas where the EU should focus if it wishes to enhance its actorness and effectiveness in the climate policy domain. These strategic priorities include: procedures, participation, knowledge and the representation of core EU values, coordination and policy ambivalence, burden sharing, the participation of civil society and local actors, monitoring and reporting mechanisms, and trade.

This report is part of a series drawing on the outcomes of the EU-funded TRIGGER (Trends in Global Governance and Europe's Role) project that ran from 2018 to 2022.

Using the conceptual framework developed as part of TRIGGER, the report moves beyond observing the characteristics of the EU as an actor to explore its actorness/effectiveness over time in a specific policy domain – in this case, climate change.

At the time of writing, Julia Teebken was postdoctoral researcher at the Freie Universität Berlin (FUB) and Klaus Jacob, professor at the FUB.

CEPS ▪ Place du Congrès 1 ▪ B-1000 Brussels ▪ Tel: (32.2) 229.39.11

Contents

List of figures

List of tables

1. Introduction: Global and EU governance of climate policy

Over the past 30 years, climate policy has grown into an established policy field, with particular political relevance at the international level. Since the United Nations Framework Convention on Climate Change (UNFCCC) emerged from the Rio Earth Summit in 1992, anthropogenic climate change has become acknowledged as a multi-faceted problem that calls for integrated governance responses across the globe. Aside from distinctive institutions explicitly set up for climate governance, climate policy has been mainstreamed into other policy arenas based on the cross-cutting nature of increasing problems and pressure (Guzman 2016). The mainstreaming has resulted in ever more complex structures, involving a variety of actors, interests, institutions and policy channels, and instruments at different levels of governance (state and non-state)[1].

Although fragmentation remains a notable characteristic of global climate governance, a form of architecture has been established over the past decades around which most governance evolves. This report seeks to make sense of this global governance architecture and how it relates to the EU. The analysis looks at developments from the pre-Kyoto phase up to Glasgow in 2021. The Kyoto Protocol is one of the key areas where the EU considers itself an 'over-achiever' (EC 2013). The EU's engagement around the successor of the Kyoto Protocol, the Paris Climate Agreement (2016), further solidified this impression. Then Copenhagen marks a discontinuity in the EU's self-image as a leader and has been heatedly debated as a case of contested EU leadership and actorness. Hence, these data points have been chosen to set the time frame for the analysis.

Given the manifold volumes that have been written on global climate governance and climate policy in EU politics, this report only briefly revisits major developments in the governance of climate policy (see also Table 1). The report begins by reflecting on the need for climate governance at the global level in Section 1. The subsequent sections look at the main elements of the current climate governance architecture (Section 1.2), its core principles (Section 1.3), policy pathways (Section 1.4) and the sectoral nature of climate policymaking (Section 1.5). The report proceeds to analyse EU governance of climate change (Section 2) and how the EU has implemented these main elements (Section 2.1). The report also looks at the EU focus areas in climate policy over time, key aspects of EU policymaking, instruments and policy pathways (Section 2.2) and actors involved (Section 2.3). The last section outlines major developments regarding international regulatory cooperation (Section 2.4). All sections contain a dynamic element by reflecting upon how governance has changed over time.

These considerations form the backdrop for the subsequent analysis of EU actorness: to what extent is the EU acting and being recognised as an actor in this global governance architecture? We will reflect upon this question in Section 3 across seven different actorness dimensions and time.

[1] For more lengthy, recent overviews of global climate governance structures see e.g. Coen et al. 2020 and Biedermann et al. 2020; for a recent overview of EU politics, see Delreux and Ohler 2019; Wurzel and Connelly 2012.

The following table provides a timeline of selected important developments in the evolution of global governance of climate policy. It also indicates the four phases into which this evolution has been divided for analysis in subsequent subsections.

Table 1. Timeline of significant developments in global and EU governance of climate policy

Timeline of significant global governance developments		
Phase	Year	Development
Pre-Kyoto phase	1990	Intergovernmental Panel on Climate Change (IPCC) *First Assessment Report* on warming (0.3°C increase per decade, business-as-usual emissions scenario)
	1991	European Commission proposes a European carbon tax / Community strategy to limit carbon dioxide (fails in 1994)
	1992	Adoption of the United Nations Framework Convention on Climate Change (UNFCCC)
		The EU signs up to the UNFCCC
		The polluter pays principle is embodied in the Maastricht Treaty
		The polluter pays principle becomes a key principle of Porto Agreement on the European Economic Area
		The UNFCCC opens for signature at the Rio Earth Summit
	1995	IPCC *Second Assessment Report*
		First Conference of the Parties (COP1) in Berlin *The Berlin Mandate* establishes a process to negotiate strengthened commitments for developed countries, thus laying the groundwork for the Kyoto Protocol
Kyoto and post-Kyoto phase	1997	The third Conference of the Parties achieves a historical milestone with adoption of the Kyoto Protocol, the world's first greenhouse gas (GHG) emissions reduction treaty
	1998	IPCC Task Force on National Greenhouse Gas Inventories is established to oversee the calculation and reporting of national GHG emissions
	2000	Green paper on EU Emission Trading, European Pollutant Emission Register; first European Climate Change Programme (ECCP I, 2000-2004)
	2001	IPCC *Third Assessment Report*
		COP6 in Bonn achieves a breakthrough with governments reaching broad political agreement on the operational rulebook for the 1997 Kyoto Protocol
		COP7 in Marrakesh (the Marrakesh Accords, setting the stage for ratification of the Kyoto Protocol; this would formalise agreement on operational rules for international emissions trading, the Clean Development Mechanism and joint implementation along with a compliance regime and accounting procedures)
	2002	Ratification of the Kyoto Protocol by the EU and Member States; EU 'Clean Air for Europe' strategy; approval of the EU Emissions Trading System (ETS)
	2004	The EU develops a mechanism to monitor GHG emissions and implement the Kyoto Protocol; promotion of biofuels in transport
		EU ETS Directive
	2005	The Kyoto Protocol enters into force (when the Russian Federation submitted its instrument of ratification)
		Official start of the EU ETS (first and largest emissions trading scheme in the world, launched as a major pillar of EU climate policy; installations regulated by the scheme are collectively responsible for close to half the EU's emissions of CO_2); Integration of joint implementation/Clean Development Mechanism into the EU ETS; second European Climate Change Programme (ECCP II, 2005 onwards); EU Thematic Strategy on Air Pollution
	2006	Clean Development Mechanism (key mechanism under the Kyoto Protocol) opens for business
		EU action plan on energy efficiency

	2007	EU Treaty of Lisbon: climate change and energy security are embedded as two important cornerstones
		IPCC *Fourth Assessment Report*
		EU 20-20-20 targets are decided
	2008	Article 191 of the Treaty on the Functioning of the European Union 2008: climate change an 'explicit objective of EU environmental policy'
		Joint implementation starts (the Kyoto Protocol mechanism; this allows a country with an emission reduction or limitation commitment under the Protocol to earn emission reduction units from an emission reduction or emission removal project in another country with similar commitments)
Copenhagen	2009	COP15 in Copenhagen produces the Copenhagen Accord (developed countries pledge up to USD 30 billion in fast-start finance for the period 2010-2012; a critical COP for EU actorness failure)
		The EU 2020 Climate and Energy legislative package is adopted; integration of emissions from aviation into the EU ETS; legislation on emissions from passenger cars
	2010	COP16 results in the Cancun Agreements (a comprehensive package by governments to assist developing nations in dealing with climate change; the Green Climate Fund, the Technology Mechanism and the Cancun Adaptation Framework are established)
	2011	The EU Climate and Energy 2050 Roadmaps are published
		The EU signs an extension of the Kyoto Protocol
	2012	COP18 in Doha (governments agree to work towards a universal climate change agreement by 2015 and to find ways to scale up efforts before 2020 beyond existing pledges to curb emissions; they also adopt the Doha Amendment, launching a second commitment period of the Kyoto Protocol)
		EU Energy Efficiency Directive
	2013	EU clean air policy package
	2013-2014	IPCC *Fifth Assessment Report*
	2014	EU 2030 Climate and Energy framework
Paris	2014	Bilateral China-US Climate Agreement
	2015	UNFCCC Paris Agreement is adopted (195 nations agree to combat climate change and unleash actions and investment towards a low-carbon, resilient and sustainable future; for the first time, the Paris Agreement brings all nations into a common cause based on their historic, current and future responsibilities)
	2016	EU and Member States ratify the Paris Agreement; the Paris Agreement enters into force
	2017	COP23 in Bonn (the first COP to be presided over by a small island developing state: in this case by the Presidency of Fiji; nations agree the next steps towards higher climate action ambition before 2020; delegates launch the 'Talanoa Dialogue' to help set the stage for the revising upwards of national climate action plans needed to put the world on track to meet the pre-2020 ambition and the long-term goals of the Paris Agreement)
	2018	IPCC Special Report, *Global Warming of 1.5°C* (confirms the need to maintain the strongest commitment to the Paris Agreement's aims of limiting global warming to stave off the worst impacts of climate change, which include more frequent and more severe droughts, floods and storms)
	2018	Upward revision of targets in the 2030 Climate and Energy framework
	2020	Commission proposal for a regulation: European climate law
Glasgow	2021	Glasgow climate summit
	2022	IPCC *Sixth Assessment Report*

Sources: Gaby Umbach, together with the authors, based on European Environmental Agency (EEA), IPCC, Umbach since 2000, UNFCCC and World Meteorological Organisation.

1.1 THE NEED FOR GLOBAL AND EU GOVERNANCE

Climate change has been described as a collective action problem involving many hands (e.g. Harris 2007, Van de Poel et al. 2012). At the same time, climate change presents a perfect moral storm due to its complex global, intergenerational and theoretical dimensions (Gardiner 2011). Climate governance is inherently normative, which is also reflected in the multitude of challenges related to the distribution of responsibility over time and across different actors, who bear different capacities and/or causal responsibility[2]. From a policy perspective, climate change has often been referred to as a wicked challenge due to its all-encompassing nature under uncertain conditions (e.g. Incropera 2016). Adapting to the adverse impacts of climate change and reaching a 1.5°C or 'well below 2°C' global temperature target cannot be achieved by insular efforts, nor by solely bottom-up or top-down approaches. Instead, a broad range of integrated policymaking approaches and international coordination is necessary. This requires a complex regime, which has developed at the level of global governance over the years. The overarching global governance architecture has also been discussed and described as an instance of earth system governance, with recent discourses focusing on policy orchestration[3].

Aside from the ever-fluid boundaries of modern government, public climate governance has evolved to include more and more collective efforts at the regional level, in contrast to international coordination at the global governance level (see also Oberthür and Kelly 2008). Among others, EU governance in this field is signified by increasingly integrated policymaking, the partial delegation of competence from the Member States to the EU level, the joint pooling of resources and bundling of diverse interests. Within political practice, integrated approaches to public governance and integrated policymaking are in increasing demand due to the cross-cutting nature of over-complex problems. Indeed, integrated policymaking and policy integration are emerging as potential ways to facilitate answers to complex policy problems, as they can enable a new logic for decision-making and strategic decisions, reduce inefficiencies in policymaking and strengthen policy coherence (e.g. Briassoulis 2004, Candel and Biesbroek 2016, Cejudo and Michel 2017, Candel 2021). It is against this background that global governance architecture and EU climate policymaking have evolved.

1.2 MAIN CLIMATE GOVERNANCE ARCHITECTURE

There is no agreed definition of what constitutes global governance architecture. Instead, different notions of global governance architecture persist (see also Biermann et al. 2010: 16ff.). Narrowly, governance architecture can be understood as an overarching system of institutions, norms, regulations and decision-making structures that interact in a given area of global governance (drawing from the definition of Biermann et al. 2020: 4). In that sense, architecture is

[2] For an overview of key normative issues, see e.g. Gardiner et al. (2010): Climate Ethics: Essential Readings, *Oxford University Press*, or Gupta (2015): Normative Issues in Global Environmental Governance: Connecting Climate Change, Water and Forests, *Journal of Agricultural and Environmental* Ethics, 28(3), 413–433. doi:10.1007/s10806-014-9509-8.

[3] Earth system governance refers to the broader influence of human decision-making on planetary health and is based on the understanding that socio-ecological systems interact in multifaceted ways. As a result, the planet is altered, due to human influence (also described as 'earth system transformation'), which requires urgent and better governance mechanisms. Also see Biermann 2004, Biermann et al. 2020: 3ff; or 'About the Project', at https://www.earthsystemgovernance.org/about-the-project/

understood as a form of meta-level governance or a 'birds-eye view' (Biermann et al. 2010, 2020). Characteristics of architecture include different degrees and types of institutional fragmentation, integration, polycentricity, complexity, dynamics, hierarchies, ideational and discursive structures. Over the years, the institutional architecture has significantly advanced to a broader setting beyond the UNFCCC (e.g. Guerra et al. 2015, Betsill et al. 2015, Biermann et al. 2020).

Most efforts, be they part of multilateral, state-led or cross-border initiatives, relate back to them. Thus, the global governance regime has played a coordinating role, with several initiatives and governance arrangements voluntarily defining themselves in relation to it (see also Betsill et al. 2015). In this context, it is argued that there is a need to explore questions of linkages and theorising about different parts of the climate governance landscape (ibid.).

This report focuses on how EU climate governance relates to the broader climate governance architecture at the global level. In this section, we examine four distinct elements, that we consider core building blocks and underlying principles of the global governance architecture in the field of climate policy:

(i) the Intergovernmental Panel on Climate Change (IPCC)

(ii) the UNFCCC

(iii) the Kyoto Protocol

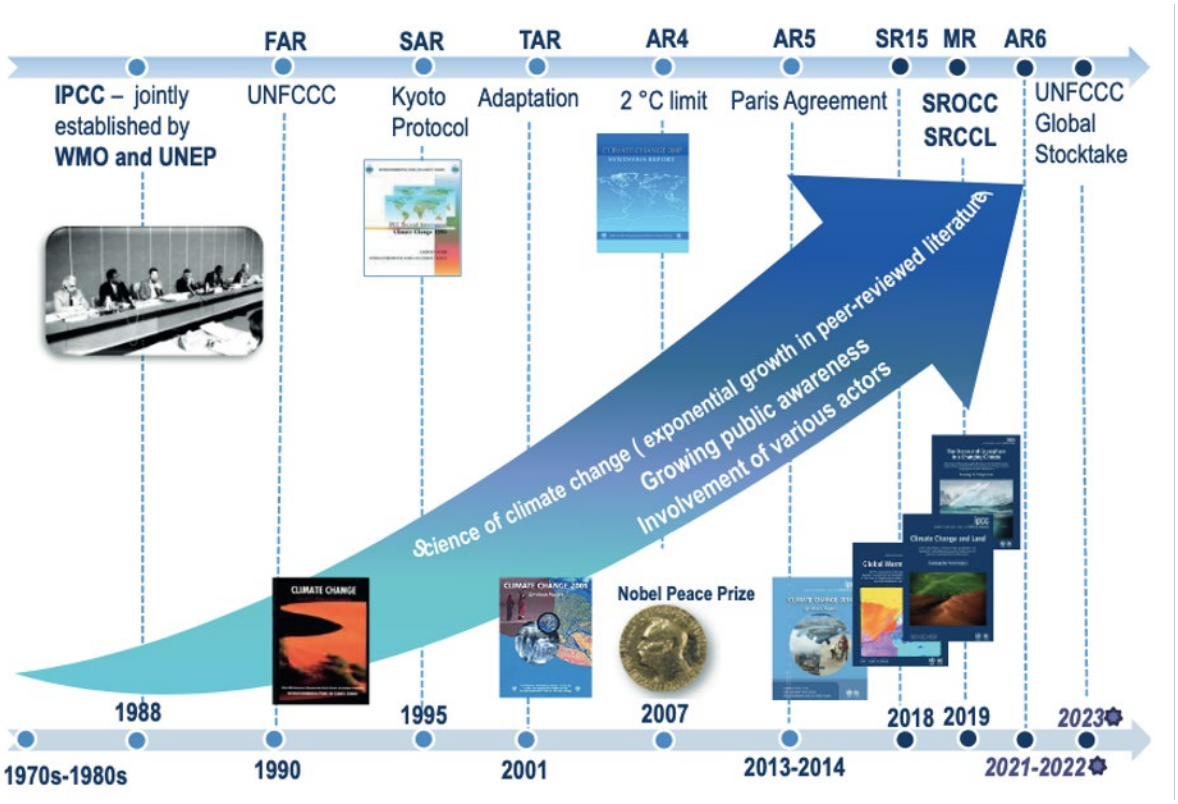
(iv) the Paris Agreement.

In 1988, the IPCC was established by the United Nations Environment Programme and the World Meteorological Organisation. As an intergovernmental body, its main aim is to provide independent scientific advice on issues related to climate change (see IPCC 2014), to synthesise knowledge for policymakers (Vasileiadou et al. 2011) and to feed scientific information into political negotiation and implementation processes (Siebenhüner 2003). Through assessing the relevant scientific literature and the state of technical and socioeconomic knowledge, and providing information as well as political advice, the IPCC has had a significant impact on the science-policy interface. Key reports provided by the IPCC are the comprehensive assessment reports (ARs) and special reports, which have significantly influenced the political process and are important inputs to the international negotiations (see also Figure 1). Aside from providing the latest scientific evidence on the most pressing problems related to climate change and supporting the political process with policy recommendations, the IPCC reports have also highlighted a sense of urgency for climate action across the globe.

The IPCC consists of three working groups, a task force and a task group. Working Group I (WG I) examines the physical science basis, WG II is concerned with contributions regarding impacts, vulnerability and adaptation, and WG III assesses contributions to the mitigation of climate change. The task force on National Greenhouse Gas Inventories, established in 1998, supports countries in their calculation and reporting of national greenhouse gas (GHG) emissions. The functions of the task groups are to address specific issues, like the current task group on Data

Support for Climate Change Assessments or former groups such as the IPCC Gender Task Group to address gender-related issues within the IPCC.

Figure 1. IPCC contributions to climate science and policymaking



Source: IPCC 2020: 3.

The *First Assessment Report* (AR1) provided the basis for negotiating the UNFCCC in 1992 (see also Table 1). Since then, the IPCC has been contributing to the work of the UNFCCC and critically informing the international climate negotiations, aside from providing climate vulnerability assessments with recommendations for policymakers. Although the role of scientific intermediary institutions, such as the IPCC, has been proliferating in the past three decades and has come under intense scrutiny of late, its role, authority and global scale are unparalleled (Vasileiadou et al. 2011)[4]. Scrutiny, on the one hand, relates to the 2007 *Fourth Assessment Report* (AR4) and falsified predictions related to the shrinking Himalayan glaciers, which resulted in a review of the IPCC in 2010. On the other hand, scientific intermediaries such as the IPCC have become the focus of assault by conservative movements, fossil fuel companies and an increasing number of climate-sceptic think tanks questioning the scientific evidence and integrity of the IPCC (e.g. see Dunlop and Jaques 2013, Busch and Judick 2021).

[4] For a critique of the IPCC's disciplinary origins and geographical differences of knowledge see Vasileiadou et al. 2011: 1056 ff. For a critique of the strong bias of knowledge produced in Western countries see e.g., Hulme and Mahoney 2010.

In addition to its role in political processes at various levels and scales, the impact of the IPCC assessment reports on scientific publications, science and policymaking is significant (e.g. Siebenhüner 2003, Vasileiadou et al. 2011). In this context, the IPCC has also been discussed as a boundary and hybrid organisation with an evolving function in the post-Paris era (Beck and Mahoney 2018, Livingston and Rummukainen 2020). This evolving role does not just concern how to better coincide crucial policy development and global stocktake, but also looks at how the relationship between science and policy is undergoing fundamental transformation (Beck and Mahoney 2018). Climate targets, for instance, have become objects that are co-produced by scientific and political actors alike, as discussed in the case of the IPCC's 1.5°C Special Report (SR15) from 2018 (Livingston and Rummukainen 2020).

Against the background of the IPCC becoming an increasingly important actor, the issue of (national) representation and knowledge politics within the IPCC has been discussed for some time (e.g. Ho-Lem et al. 2011, Corbera et al. 2016). North-South inequalities and uneven co-authoring relations persist in the authorship of the latest AR5 report, aside from a rather insignificant participation of scholars from the humanities in contrast to traditional fields, such as economics, engineering or physics (see Corbera et al. 2016). The IPCC is currently in its sixth assessment cycle, with the next synthesis report on climate change being published in 2022. In the lead-up to AR6, several special reports were produced, such as the 2018 Special Report*, Global Warming of 1.5°C*, which raised the significance of climate action and ambition (see also Table 1). These reports have increased the scientific evidence and fundamentally raised the necessity of different global governance players acting on climate change, including the EU (see Section 3.6).

The UNFCCC (or Convention) is the main international environmental treaty, which was adopted at the Rio Earth Summit in 1992. The Convention was the first legal agreement addressing the climate and entered into force in 1994. Its ultimate goal is to stabilise GHG emissions and 'prevent dangerous anthropogenic (human-induced) interference with the climate system' (UNFCCC). Both the Kyoto Protocol (1997) and the Paris Agreement (2016) were negotiated under the UNFCCC and include more specific obligations than the broader UNFCCC framework. One basic institutional arrangement on collective decision-making is the Conference of the Parties (COP) that takes place annually through the participation of governments that have ratified the UNFCCC and are known as parties to the Convention (currently, there are 197).

Parties to the UNFCCC are classified as Annex I, Annex II and non-Annex I parties, as well as least developed countries. The classification is based upon different degrees of industrialisation, economic development and assumed capacities to adapt to the effects of climate change. Thus, it corresponds with different obligations. This institutional categorisation of states is based upon the idea of differentiated burden sharing, which has fundamentally determined the degree of contributions required. These features of (re)distribution and differentiated responsibility have been a strongly contested issue, continually sparking debates on whether structural inequality can be considered an inherent aspect of the UNFCCC and how it must be transformed (for a recent debate, see e.g. Prys-Hansen 2020).

The **Kyoto Protocol** was adopted by parties to the UNFCCC in 1997 and came into effect in 2005. The Protocol focused on mitigation, which implied an emissions reduction of 16.8 gigatons of CO_2 ($GtCO_2$) for 38 Annex I countries during the first commitment period, 2008-2012. The special status of the US during the negotiations, signified by George W. Bush's rejection of the Kyoto Protocol 'as fatally flawed and unfair' to the US, and George H.W. Bush's declaration early on that 'the American way of life is not up for negotiation' dominated earlier global governance processes on climate change[5]. The US administration has had a long-standing tradition of opposing legally binding commitments, rejecting a greater burden for industrialised countries of emission reductions and was one of the largest emitters not included in the Kyoto Protocol.

The second commitment period (2013-2020) was agreed in 2012 and is known as the **Doha Amendment to the Kyoto Protocol**. It only entered into force on the last day of the second commitment period on 31 December 2020, following acceptance by the mandated minimum of at least 144 states. This included China, but not the US.

Flexibility and market-based mechanisms, such as international **emissions trading schemes (ETS)**, the **Clean Development Mechanism (CDM)** and **joint implementation (JI)** are considered fundamental for efforts on global emission reductions (e.g. see Kuyper et al. 2018). Instruments like GHG emissions' reporting and their diffusion are also considered critical for building an infrastructure for **monitoring, reviewing, and verifying** (ibid.). Monitoring, reporting and compliance procedures, on the other hand, are deemed essential for ensuring the effectiveness and fairness of international agreements (OECD 2001).

Article 12 of the Kyoto Protocol stipulates the main objective of the CDM, which is to assist Annex I parties under the UNFCCC, and Article 6 on joint implementation sets out how to help countries with binding agreements reach their targets. Aside from the CDM and JI, the EU ETS is seen as the main tool for achieving the binding annual targets of EU countries under the effort-sharing decision. The three flexibility mechanisms are all firmly grounded on the idea of distributed responsibilities. The Kyoto Protocol stood out as an international treaty that was cherished for its legally binding nature, its target-oriented approach and the three flexibility mechanisms (ETS, CDM and JDM) it brought forward, which have been playing a major role in EU climate governance.

The 15th COP adopted the **Copenhagen Accord** (2009), which is considered a rather vague and weak agreement, lacking binding emission targets and timetables (Wurzel et al. 2011, Bäckstrand and Elgström 2013). Overall, the COP itself was characterised by a shift away from legally binding commitments to a pledge-and-review system, which ultimately resulted in the submission of voluntary 2020 emission reduction pledges in 2010 by more than 90 countries (see also Afionis 2011, Delbeke et al. 2019: 30). A common but differentiated system of 'pledge and review', involving all UNFCCC parties participating in emission reductions and core elements of the

[5] See 'A Brief History of the United States and the UN Climate Change Negotiations', published on 2 June 2017 by Demand Climate Justice, available at: https://worldat1c.org/a-brief-history-of-the-united-states-and-the-un-climate-change-negotiations-bf7525d4ef13, last accessed 23 June 2021.

Copenhagen Accord, set the baseline for the pledge-and-review system under the Paris Agreement coupled with the submission of intended nationally determined contributions (NDCs).

The Paris Agreement (2016) is the successor of the Kyoto Protocol, adopted at COP21 in 2015. It is seen as forming the basis of a new era of international cooperation on climate change grounded on the legally non-binding NDCs by a majority of parties to the UNFCCC. Replacing legally binding emission targets, 187 countries submitted NDCs covering 98.6 % of global GHG emissions. It has been considered especially successful, as the former divide into Annex I and non-Annex I countries under the UNFCCC (developed and developing countries respectively) was effectively replaced with obligations of the treaty applying to all parties. The bilateral cooperation and joint statement between China and the US one year ahead of COP21 is regarded as an important factor for the success of the Paris Agreement.

The Paris Agreement is understood as a concerted effort by Annex I and non-Annex I parties, which did not result in a legal framework of laws but consists of several mandatory elements (see Duwe et al. 2020). Paris, like Copenhagen, constituted a departure from the top-down approach under the Kyoto Protocol, but it was successful in adopting a bottom-up approach, allowing countries to put forward voluntary national reduction pledges. Discourse has revolved around the nature of pledge-and-review bargaining and whether it can be seen as resulting in legally binding commitments (e.g. see Harstad 2020, Duwe et al. 2020). Whereas some argue that pledge-and-review permits result in less ambitious contributions yet attract a larger number of participants (e.g. Keohane and Oppenheimer 2016, Harstad 2020), others point to the transformation of climate diplomacy based on unconditionality and greater flexibility, with non-binding commitments triggering greater cooperation (Victor 2015).

There seems to be consensus that there is a strong interrelation between the binding nature and ambition of commitments. The tension between flexibility to encourage the broader engagement of different countries, while addressing demands for legally binding efforts and increased ambition, is a recurring theme in global and EU governance of climate policy. It is also a thread running through the different actorness dimensions and debates on EU integration, interest groups within the EU and cohesion between Member States.

In any case, existing research up to this point finds that additional (legal) mechanisms for participation and target setting as well as implementation and enforcement are needed. During the Paris Agreement too, the role of the US was viewed as key to ensuring that the contributions are 'nationally determined' instead of legally binding. Yet, NDCs are subject to binding procedural requirements and normative expectations (Rajamani and Brunnée 2017). Before the US left the Paris Agreement effectively, the announcement to do so was discussed as weakening the very core of the agreement (ibid.). The new Biden Administration has since re-joined the Paris Agreement, starting its time in office with a range of executive orders on climate change, reversing several policy efforts of the previous administration and reconvening a leaders' summit on climate change in April 2021. This summit included other global governance actors such as China, Brazil, India and the EU, which was represented by the European Commission and the European Council.

One of the principal outcomes of the Paris Agreement was a fostered **Loss and Damage Mechanism**. The loss and damage discourse was initiated by small island states over three decades ago, due to their worries about sea level rise reaching beyond socially adaptable limits (Mechler et al. 2019). The Loss and Damage Mechanism was institutionalised by the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts in 2013, with a leading role for the Alliance of Small Island States (AOSIS), countries that have traditionally had less negotiation power. The case of AOSIS has been described as a 'structuralist paradox' in the negotiations, signified by the effectiveness of weaker parties in negotiating with stronger parties (Caliari et al. 2019). In contrast to earlier climate negotiations, the commitment of all countries was what made the Paris Agreement a success story in global governance and reinvigorated debates on a revived multilateralism by overcoming some of the earlier power dynamics.

The **evolution of the UNFCCC has been characterised with three shifts in approach** (Kuyper et al. 2018a). First, whereas the **Kyoto Protocol** was signified by a **top-down architecture** with little non-state actor inclusion, the **Paris Agreement** was grounded upon the idea of raising global ambitions through a **hybrid combination of bottom-up and top-down elements**. Second, while earlier efforts concentrated on targeting the historic emissions of industrialised countries through legally binding instruments, recent negotiations have shifted towards inviting voluntary contributions (Kuyper et al. 2018a). This ultimately resulted in a broader engagement of non-state actors, which also led to the launch of the Non-State Actor Zone for Climate Governance (NAZCA) portal in 2014. Third, the broadening from a focus on mitigation to including adaptation and finance marks another key shift in UNFCCC orientation (ibid.). Against this background, the Paris Agreement has been described as an instance of hybrid multilateralism (Kuyper et al. 2018b). It is argued that these shifts also represent a break-up of the binary institutional feature of the UNFCCC of developed versus developing countries as well as states (parties) versus non-state actors (observer organisations) (Kuyper et al. 2018a).

1.3 CORE PRINCIPLES OF GLOBAL CLIMATE GOVERNANCE

Up until the Paris Agreement, climate governance was considered a classic North-South issue (Gupta 2014). The North-South divide was based on the idea that developed countries have contributed more to the problem of climate change, have benefited most from past emissions and free riding, and due to their economic development have greater capacity to deal with the challenge of climate change. As a result, different principles of burden sharing have continually been built into environmental governance.

Two early examples that reflect the normative nature of and call for political responsibility are the **polluter pays** (1972) and the **common but differentiated responsibility (CBDR)** (1992) principles. Both principles intend to address uneven international emissions and disproportionate burden sharing. According to the CBDR principle, all states used to have a responsibility to address global climate change, but the degree of contribution was considered to depend on a variety of factors, such as development status and historical pollution. The principle had institutionalised the split between those that have a particular responsibility to protect the environment due to their

historical contributions, financial as well as technological capacity, and those with special needs regarding development, funding and the transfer of technologies (Belis et al. 2015).

Prior to the Paris climate summit in 2015, CBDR was a major policy rationale used by developing countries or newly emerging economies such as China or India regarding their (limited) international responsibility for GHG emission reductions. Shifts in the stance on the 'right to emit and develop' despite environmental pollution coupled with increasing international pressure, non-state actor engagement, new private-public partnerships as well as the bilateral climate agreement between China and the US the year before (2014) the Paris summit are factors that built momentum towards the Paris Agreement.

The **precautionary principle** was built into the UNFCCC in 1992 after it had been endorsed as part of the World Charter for Nature (1982) and Second International Conference of the North Sea (1987), and adopted in the Montreal Protocol (1987). The principle aims to capture aspects of precaution and foresight in situations signified by reasonable doubt, full scientific certainty, limited understanding, knowledge or probability information (Gardiner et al. 2010). In these situations, actions should be oriented towards avoiding the risk of serious and irreversible damage[6]. The precautionary principle emerged from the *Vorsorgeprinzip*, prevalent in German environmental protection in 1971. It was quickly taken up at the international level in the 1980s and 1990s (see Tedsen and Homann 2013). Despite widespread criticism of its vagueness, multiple connotations and self-contradictions in the principle, it has become widely accepted as a framework for policy and law with many different spin-offs in political practice. The precautionary principle has also been used to argue for critically acclaimed measures of geoengineering (e.g. see Tedsen and Homan 2013).

1.4 COMMON POLICY PATHWAYS: ADAPTATION AND MITIGATION

Related policy efforts commonly distinguish between climate mitigation, i.e. efforts to reduce climate change, and climate adaptation, i.e. adjusting to and preparing for a changing climate. This differentiation into different policy pathways is also in line with the working group division and assessment reports provided by the IPCC. Mitigating climate change focuses on installing less or non-polluting energy and reducing emissions from agriculture, cutting energy demand in the various sectors (primarily: mobility, industry, housing) and enhancing the natural capacities to absorb emissions in land use. Reducing emissions has a free-rider problem: the benefits of mitigating climate change are a common good. This is relevant not only at the international level and within the EU (between countries), but also between sectors, regions and households. The distribution of effort to reduce emissions also entails questions of fairness: who should reduce and by how much? Reducing emissions affects many different (types of) actors, at different levels.

[6] The range of definitions and concepts of the precautionary principle has been analysed (and strongly critiqued) for instance by Sunstein 2005. The literature on the precautionary principle is voluminous, not just in the context of climate change. Extended works even focus on the patterns of authorship in the IPCC reports (for instance see Corbera 2016).

Yet, governments are often not entitled to regulate in detail. Instead, a search for innovation and/or changes of behaviour among decentralised actors need to be encouraged.

Much of today's policymaking continues to focus on climate mitigation. Climate adaptation used to be thought of as a defeatist position that was considered unconstructive for building support for mitigation (Schipper 2006). However, in light of accelerating and more rapidly intensifying climate change[7], adaptation has also been emerging as a new distinct policy field (Massey and Huitema 2013)[8]. Multilevel problems (related to governance, sectors and actors) are also relevant in the case of adaptation. Issues of fairness, for instance, are relevant in adaptation problems when it comes to international distribution of the costs of adaptation.

1.5 SECTORAL NATURE OF CLIMATE POLICYMAKING

Against this background of climate change constituting a wicked challenge and in order to be able to deal with its complex nature, increasing emphasis has been given to exploring new approaches to its governance (e.g. see Bulkeley et al. 2014). There has been a tendency to understand climate policy as a landscape that consists of multiple fields or policy systems (e.g. see Bossom 2015). Examples of policy systems include energy, transportation, water, health or food security. These systems are often also referred to as policy sectors and/or policy fields and aim to structure governmental efforts by defining clearly designated areas for policy interventions. In the climate policy context, they are often in line with the sectors outlined as per IPCC assessments. Climate policy integration has played an increasingly important role, not just to address policy coherence and explore synergies between different sectors, policy fields and areas but also to address the increasingly complex demands for systemic transformations to keep global warming well below 2°C and preferably at 1.5°C compared with pre-industrial levels. At the same time, national climate policymaking does not just draw from these international research reports and global climate regimes but is also concerned with the representation of national interests during international climate negotiations, in the form of commitments in multilateral and bilateral climate agreements (see also Bossom 2015, Siebenhüner 2003).

Governance must therefore address questions, such as: what are the corresponding commitments and goals? How are the costs distributed? What is the progress of efforts undertaken and how can it be monitored? To address these issues, international agreements and implementation mechanisms are required. Meanwhile, any design of governance is embedded in the context of governance for other societal goals, in particular economic objectives in the fields of climate and trade, development and infrastructure, but also security and questions of sovereignty (e.g. are forests a global common good? Who is doing the monitoring?). Despite being embedded in wider socio-political processes, climate governance regimes have developed for different issue areas,

[7] See for instance IPCC 2018, SR1.5.

[8] Because this report is interested in the actorness of the European Union in climate governance, and adaptation is only a recently emerging policy field, climate adaptation policymaking will not be reflected in greater detail as part of the report.

which are part of a broader architecture (see e.g. Biermann et al. 2009, Van Asselt and Bößner 2016).

1.5.1 Increasing complexity and the role of institutions

Post-Kyoto climate governance was said to be at a 'crossroads' (Hoffmann 2011), with some even calling it a crisis of multilateralism (e.g. Lyod 2012). Multilateral climate governance was criticised for lagging pace and reform (e.g. Ovodenko 2016). The post-Lima–Paris agenda experienced a major shift through the emergence of non-state actors and diversifying actor landscapes. Although governmental institutions at different levels (supranational, national, subnational) remain central actors in the governance of climate change, stands out as a major characteristic of recent multilateral climate governance (e.g. Bulkeley et al. 2014, Gupta 2010).

Narratives of revived multilateralism based on accelerated climate action, the broad inclusion of different actors, expanding actor networks and new mechanisms of cooperation became increasingly common (e.g. Van Asselt and Bößner 2016, Bäckstrand et al. 2017, Biedermann et al. 2020). Research on the role of non-state actors in the form of businesses, non-governmental organisations and foundations began to flourish in addition to a greater emphasis on subnational actors and local governments. Furthermore, multi-stakeholder commitment platforms greatly changed the landscape of global climate governance. Eventually, these were bundled into the NAZCA platform. NAZCA, together with the bilateral climate agreement of China and the US of 2015, are seen as major building blocks of a new era of revived multilateralism and key conditions for the success of the Paris Agreement.

This marks a major shift from great power bargaining, which used to dominate multilateral negotiations and global climate policy governance, to minilateralist approaches and smaller climate clubs (e.g. see Falkner 2015). In short, the global climate policy landscape diversified dramatically with different actor constellations at various levels of governance and an ever-dynamic set-up of informal negotiations. Further research points to governance through goal setting as a mechanism, which has become increasingly popular in the last two decades (Vijge et al. 2020). It is based on the joint commitment of governments to collective policy ambitions, which are then realised through multilaterally agreed goals and time frames. Recent examples include the Millennium Development Goals that were agreed in 2000 and the Sustainable Development Goals that followed in 2015.

2. Evolution of EU governance of climate policy

It is in the light of struggling multilateral institutions and limitations of existing climate governance that the EU has established itself as an international leader in global environmental governance (e.g. see Obertür and Kelly 2008)[9]. Prior to the Kyoto Protocol, the EU used to be perceived as a laggard in environmental policymaking (Lenschow 2005). Nevertheless, Kyoto is said to have tipped the needle from a series of ad hoc measures to a set of comprehensive policy undertakings (Burns and Carter 2012). Like the governance of sustainability, implementing targets agreed upon at the global level has proven to be a complex task for the EU. The EU has focused on specific policy domains while using distinctive policy instruments, which will be reflected upon in the following discussion.

2.1 THE EU AND IMPLEMENTATION OF KEY ARCHITECTURE ELEMENTS

Addressing climate change is one of the EU's major political priorities. The EU has been centring its climate policy on three major aspects: (i) emission reductions through a cap and trade system, (ii) renewable energy policies and (iii) the decoupling of emissions from economic growth. The EU's approach is signified by a 'jigsaw' of policy approaches that combines different policy instruments (Debelke and Vis 2016). In contrast to the EU's long-standing experience of 25 years in mitigation policymaking, adaptation is a relatively new policy field. It was only in 2013 that the European Commission adopted an EU climate adaptation strategy. Given the rapid intensification of climate change, the EU recently updated its climate adaptation efforts into a new EU strategy (2021) to foster international action for improved resilience. Aside from gradually mainstreaming adaptation in relevant policy sectors vulnerable to climate change – such as agriculture and forestry, marine, fisheries and coastal areas, health or infrastructure – Member States have been encouraged to adopt national adaptation strategies. The EU has been giving greater attention to regulations on land use, land use change and forestry (LULUCF Regulation). This shift in focus for agriculture is considered a big change.

The EU's internal policymaking on sustainability and climate-related concerns has become more differentiated over time, with climate policy developing into a policy domain in its own right and being defined as a field of *shared competence* between Member States and the EU, as per the Treaty on the European Union in 2008. This means that both the EU and the Member States share responsibility and are both able to adopt legally binding acts.

EU officials and bodies have responded to IPCC assessments and gradually converged to close the gap between science and emission pathways (Hare and Meinshausen 2008). EU climate policy targets have been based on the assessment reports of the IPCC, which has not just provided EU Member States with country-specific assessments but also offers regional advice to the European Union. The AR5 debates about Europe's 2030 targets sent an important message: EU targets cannot be based on science alone but have to be set politically, calling for an iterative process

[9] For a most recent and detailed overview of environmental policy of the EU see Jordan, Andrea and Viviane Gravey. 2021. *Environmental Policy in the EU: Actors, Institutions and Processes*. 4th Edition, Routledge. Wurzel and Connelly 2011, put a greater emphasis on the EU's external climate governance and role in international politics.

between science and policymaking (Knopf and Geden 2020). As a result, the EU has acted in congruence with the targets put forth by the UNFCCC, coming up with domestic measures such as the ETS and renewable energy transition models. Against the big power rivalries of China, India, the US and Russia, the EU is often regarded as a saviour of the Kyoto Protocol. Still, EU engagement on this matter has been considered critical but not certain due to rivalries within the EU as well as emissions growth in the south and east (Hare 2008).

2.1.1 Kyoto: Implementation through effort sharing and the ETS

In 1997, the EU signed the Kyoto Protocol and deposited instruments for ratification in 2002. In 2005, the agreement entered into force after 55 Annex I parties (industrialised countries) had ratified it, thereby fulfilling the condition set by the UNFCCC. The ratification of the Kyoto Protocol is seen to be a result of a process formally establishing differentiated responsibilities through the 'burden-sharing' agreement of 1998, which redistributed the total reductions among the parties 'taking into account different national circumstances'. The allocation of countries' responsibilities is a long-contested issue in international climate negotiations, due to a lack of clear guidelines on how to distribute emission limits and reduction targets under the UNFCCC (Marklund and Samakovlis 2007). Thus, negotiating equity aspects with burden sharing as a central tenet, amid European agreement, played a key role in passing the Kyoto Protocol.

2.1.2 Copenhagen: Leadership marginalisation of the EU

At the global level, the Copenhagen Accord is viewed as 'only a political agreement', lacking concrete commitments or binding targets for emission reductions. The Copenhagen Climate Change Conference represents a period of EU leadership marginalisation, with the EU's claimed leadership in climate policy issues coming into serious question, as the central outcome did not reflect core European preferences (Torney 2015). Others argue it is a case of contested EU actorness and effectiveness based on internal coherence and external factors influencing the outcome of the summit more strongly (Groen and Niemann 2013). During Copenhagen, the EU committed to a joint 20 % reduction target by 2020 and to limit warming to below 2°C.

2.1.3 Paris

During Paris, the EU committed to reducing GHG emissions by at least 40 % by 2030 compared with 1990 under its 2030 climate and energy framework. This target was judged to be 'severely outdated' and 'inadequate' by climate observers and international think tanks (e.g. CAT). The Effort Sharing Regulation and Energy Union framework are central elements of the EU's policy efforts. At the same time, the EU gradually adjusted its wording from limiting warming to 'below 2 degrees Celsius' to 'well below 2 degrees'.

2.1.4 Glasgow

Compared with other policy areas, the legislative foundation of EU climate policy has developed into a profound basis. In light of its new long-term climate target, the EU climate law has been proposed, which will also be a target for discussion during the postponed Glasgow climate summit

in 2021. The law is considered 'a landmark for the European Green Deal' and aims to set a direction for making the '2050 climate neutrality goal binding' (EC 2020e). The European climate law would oblige Member States to become climate neutral by 2050 as a bloc and potentially require them to make significant additional policy efforts. Frans Timmermanns, the first Vice President of the European Commission (2019-2024), Executive Vice President for the European Green Deal and third European Commissioner for Climate Action emphasised three points:

> This is a Union-wide commitment to climate neutrality, with a just transition for all. The target is also economy wide. All sectors must contribute – no exceptions granted. And it's a domestic objective – delivered in Europe to inspire the world to follow our lead. And we see across the world other nations following the lead already.[10]

The main aim of the proposed climate law is to make the 2050 climate-neutrality goal legally binding and increase the EU's climate ambition. This is also striking, as efforts to legally include long-term planning continue to be missing from most climate framework laws (Duwe et al. 2020). Very few climate laws to date consider long-term strategies (e.g. Denmark, Finland, France). Aside from aiming to enhance the (long-term) reliability of EU climate policy through a European climate law, recent legislative changes include ETS reform as another core aspect, which is seen as crucial for reducing carbon leakage and the number of surplus allowances. The European climate law is at the heart of the European Green Deal and expected to 'inspire a legislative thunderstorm' (*Politico* 2020). Political contestation, however, remains on how to reach the targets and how the burden will be allocated across Member States. June 2021 marks an important date, as Frans Timmermanns is expected to present legislation on this (ibid.).

Against this background, Europe's Green Deal and the COP26 in Glasgow (2021) are seen to play key roles in building up international momentum and increasing climate policy ambition (CAN Europe 2019). Certain policy arenas are considered especially weak – for example, the transport sector, in which GHG emissions constantly increased between 1990 and 2017 (Delbeke and Vis 2016, EEA 2017). Europe's Green Deal is the most recent roadmap with the overarching objective of reaching climate neutrality by 2050. In light of the Covid-19 pandemic and growing economic recovery concerns, think tanks have begun to appeal to the benefits of the Green Deal in order to keep the momentum alive (IDRN 2020). In the context of growing distributional concerns, it has been argued that a regulatory breakthrough is needed (Miccinilli 2020). It was in fact in December 2019, one month before the pandemic would hit the news across Europe, that the European Commission vowed to 'leave no one behind' to reach the 2050 goal[11].

[10] Remarks made at a European Parliament Plenary Session on the European Climate Law, 6 October 2020; see EC, last accessed 3 November 2020: https://ec.europa.eu/commission/commissioners/2019-2024/timmermans/announcements/opening-remarks-executive-vice-president-frans-timmermans-european-parliament-plenary-session_en

[11] See Frederic Simon, Euractiv, 'The EU releases its Green Deal'. Here are the key points, published on 12 December 2019, at: https://www.climatechangenews.com/2019/12/12/eu-releases-green-deal-key-points/ (last accessed 22 June 2020).

Table 2. Major EU climate policy targets alongside climate summits

Summit	Kyoto (COP3) 1997	Copenhagen (COP15) 2009	Paris (COP21) 2015	Glasgow (COP26) 2021
Role of the summit	1st Commitment Period (2008-2012)	2nd Commitment Period under the Kyoto Protocol (2013-2020)	New global agreement 2020-2030	First 'Global Stocktake' (five-year follow-up mechanism of NDCs as per PA)
Proposed emission reduction target	8 % reduction target (1990 base year level), 11 Member States with individual emission reduction commitments	Joint 20 % reduction target (1990) by 2020 by the EU28 Limit warming below 2°C	40 % by 2030 (1990) EU-27+UK Limit warming 'well below 2°C'	50-55 % (1990) by 2030, carbon neutrality by 2050 Limit warming to 1.5°C
Corresponding policy documents	National targets in Annex II Art. 4, Kyoto Protocol, Burden Sharing Agreement (Decision 2002/358/EC)	2007 Bali action plan, Copenhagen Accord, 2020 climate and energy package, Doha Amendment (2013), the ETS, sectors outside the ETS	2030 climate and energy framework, Effort Sharing Regulation, Energy Union strategy	European Green Deal, ETS revision plan, circular economy action plan, energy taxation direction, Just Transitions Mechanism, European climate law roadmap and legislative proposal
Outcome	Overachieved (12.2 % average domestic reductions)	Malta, Germany, Austria may end up with higher levels of emissions in the second period	Policies insufficient and inconsistent with 'well below' 2°C target, if all countries were to adopt an EU approach, warming would reach between 2 and 3°C	Drastic emission falls of 8 %, expected due to the pandemic; even before the pandemic, emissions in all countries covered by the EU ETS fell strongly by 9.1 % in 2018-2019, but emissions from aviation continue to increase (prior to Covid-19)

Sources: European Commission, Climate Action Tracker, EC 2020c.

2.2 POLICY INSTRUMENTS

The EU **ETS** is one of the key EU instruments for climate action aside from the **Effort Sharing Regulation (ESR)** and the **Monitoring Mechanism Regulation.** The EU ETS is a market-based policy instrument, which intends to set a price on carbon. The instrument is understood as a supplement to domestic actions (Palinkas 1998). The ESR can be considered a complementary mechanism to the EU ETS by setting binding national targets for each of the 27 Member States for policy sectors not covered by the ETS, such as agriculture, buildings and transport. Targets are differentiated according to GDP per capita.

The Monitoring Mechanism Regulation for monitoring and reporting GHG emissions was adopted in 2013[12]. It entails a statistical information system that is based on the annual comprehensive reports of Member States on their GHG emissions across different economic sectors. Thereby, the EU and its Member States attend to their responsibilities as parties to the UNFCCC and its Kyoto Protocol. The system is regarded as a well-developed tool and an essential foundation for EU climate policy (Debelke and Vis 2016: 9).

On a procedural level, principles of fairness and flexibility mechanisms are inbuilt across all instruments, intending to support countries with different capacities. The flexible mechanisms introduced by Kyoto, joint implementation and the Clean Development Mechanism, aim at promoting investment in clean energy production. Effort sharing and country-specific reduction targets have become crucial aspects in the EU's multilateral decision-making on climate policy. The distributional aspect in addressing risks is deemed a fundamental principle, aside from relying on voluntary agreements but flexible legislation. A cross-sector approach is another important aspect of EU climate policy, so it is not a stand-alone policy field but has been incorporated into many other policy domains.

Apart from principles of fairness, the EU is said to have distinctive capabilities when it comes to negotiating and reconvening different groups and actors. The EU is considered strong in process governance but weak in policy efficiency (Termini 2009). The EU gradually changed from having a top-down approach of environmental policymaking, which was prevalent in the early 1990s, to process governance with joint responsibilities and differentiated obligations based on an increased emphasis on partnership working and multilevel leadership enforcement.

2.3 KEY ACTORS

This section reflects upon the main actor groups and constellations in EU climate policymaking. Due to the vast amount of literature on this issue, this section will only provide a brief overview of actor constellations over time with relevant references to existing literature (see e.g. Jordan 2005, Hirsch 2016, Jordan and Gravey 2021). Roughly divided, actors within the EU could classified into four groups: (i) formal EU actors, which consist of the main policy and decision-making bodies; (ii) environmental interest groups and regional actor alliances; (iii) consultation

[12] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0525&from=EN

stakeholders and lobby organisations; and (iv) social movements. Nation states and their interest representation can be considered an interest group in their own right; they will only be examined briefly as part of the formal structures.

Over the past 20 years, environmental interest groups and regional actor alliances have become increasingly important due to the difficulties of multilateral institutions in delivering results. As part of this development, the differentiation between environmental interest groups and other consultation stakeholders that mainly operate outside the environmental sphere has become progressively more blurred. Policymaking on climate change has become increasingly complex, characterised by intertwined policymaking groups of different sectors and cross-sectoral actor alliances.

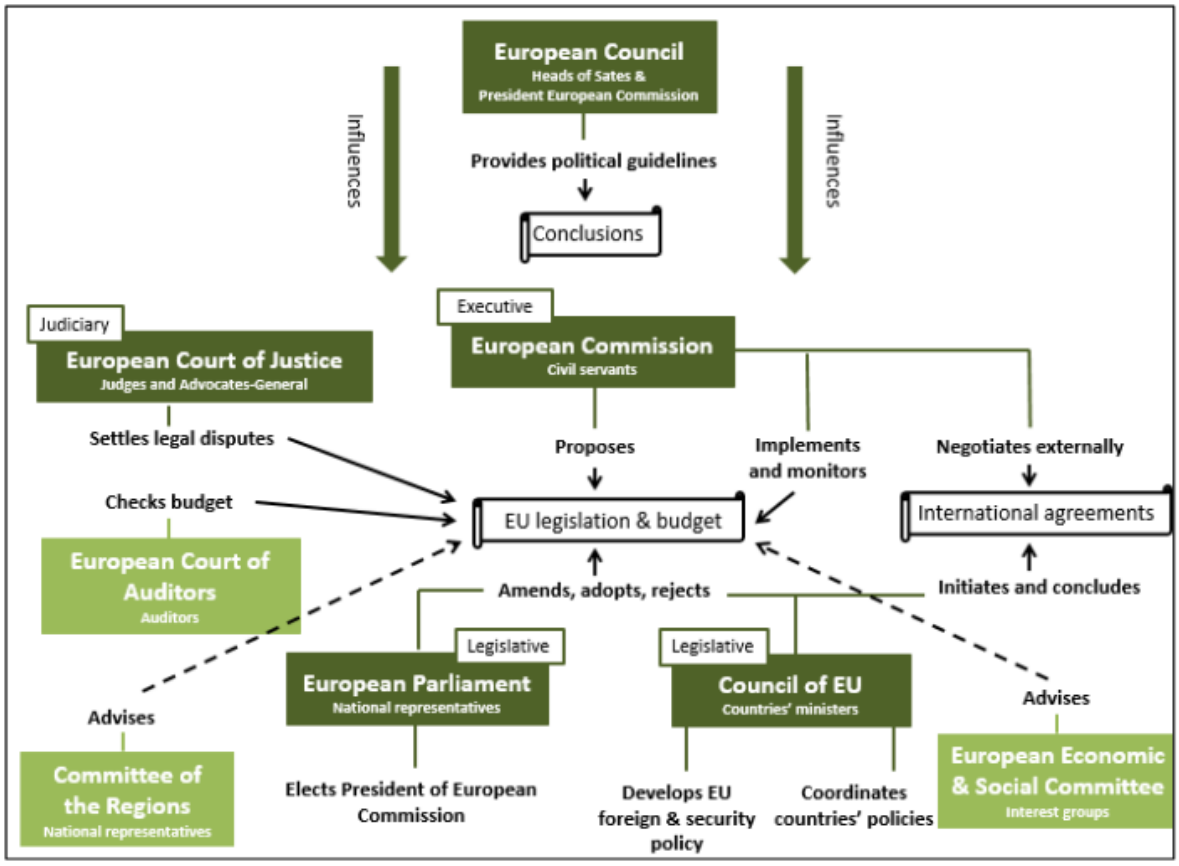
2.3.1 Formal EU actors

In the EU, there are three main policymaking bodies across the different levels of government, which are involved in the governance of climate change. The executive consists of the **European Council**, the **European Commission** and national governments. The central policymaking body in the executive is the European Commission, which has gradually expanded its competence to negotiate on behalf of the Member States on matters related to climate change[13]. The Commission can formally initiate policy and is responsible for both implementing policy and ensuring that EU law is properly applied by all EU countries (Barnes 2011). In early 1992, it was the Commission that proposed an EU-wide CO_2 / energy tax, which was vetoed by the UK (see also Wurzel and Connelly 2011: 7ff.). Instead, three other proposals from the Commission were adopted by the Council: a Framework Directive on energy efficiency measures, a Decision on renewable energy and a Decision to monitor CO_2 emissions. Post-Kyoto, the Commission seized the opportunity to propose an EU-wide ETS (ibid.). The failure to propose a carbon tax is considered an important precursor for the Commission to take a more active approach and establish a leading role in climate policy through the EU ETS (Convery 2009).

The legislative bodies comprise the **European Parliament**, the Council of the EU and national parliaments (see also Averchenkova et al. 2016: 23). The European Parliament has gained tremendous decision-making power over the years. It is an equal partner of the **Council** and works through a co-decision procedure to adopt EU legislation. The European Parliament is often held more accountable for decisional failure. Parliament is said to be trying to systematically limit the discretion of national authorities while attempting to increase the policy autonomy of the Commission (Franchino 2007).

[13] For an overview of the architecture of the EU see the most recent book by Geralds, Carsten and Wolfgang Wessels. 2020. *Jahrbuch der Europäischen Integration 2020*. Nomos (doi.org/10.5771/9783748908432-469); for a climate change-focused analysis of EU actor architecture see Part II: EU institutions in Wurzel and Connelly 2011: 41ff.

Figure 2. Role of main EU bodies and institutions



Source: Averchenkova et al. 2016: 38.

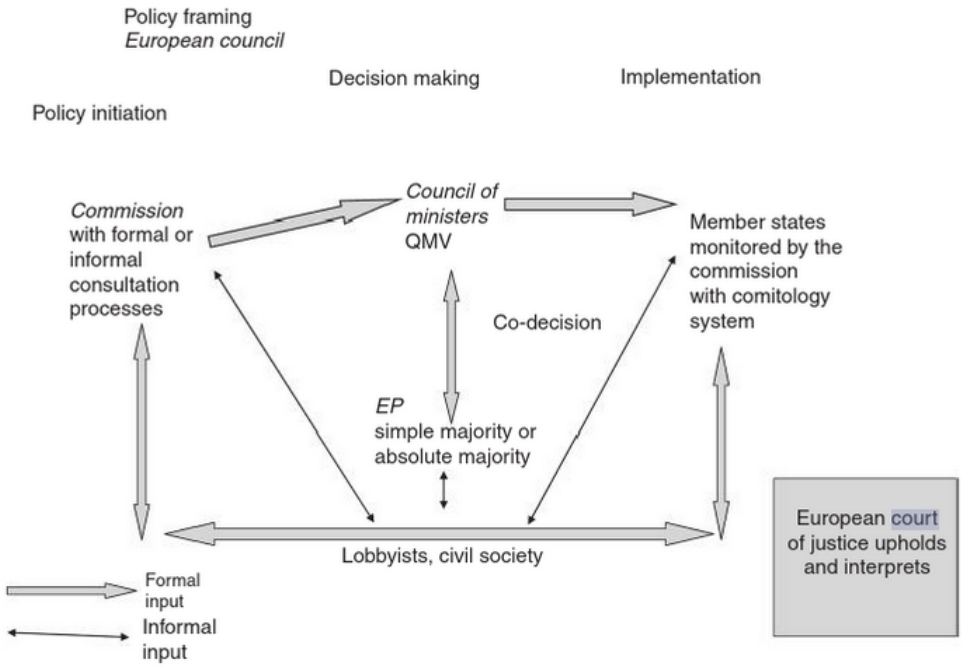
Both the Commission and the European Council take charge and reiterate the leading and normative role of the European Union in climate policymaking (Wurzel and Connelly 2012). Both institutions adopt legislation on, but not exclusive to, environmental matters. Climate change as an issue has been enjoying high levels of popular support not just among European citizens, but also within EU institutions.

The European Commission is present throughout the policy cycle, and has primary power in the policy formulation phase based on its 'power of initiative' (Lenschow 2005: 312). Because climate policy is an area of 'mixed competence', the EU, represented by the European Commission, and Member States are both parties to the UNFCCC. The Commission fulfils multiple roles: it is an important agenda setter and has the formal right to initiate legislation. The Commission also intervenes and mediates during decision-making processes and ensures implementation of EU law. It is responsible for facilitating the execution of certain tasks brought forward by EU legislation through the sectoral organisation of the Commission into Directorates-General. Here, it is worthwhile mentioning three:

- Directorate-General for the Environment (DG ENV) (2013)
- Directorate-General for Climate Action (DG Clima) (2010)
- Directorate-General for the Joint Research Centre (DG JRC)

The Directorates-General are dependent on national expertise and the opinions of 'real' implementers to judge Commission policy proposals. National governments and respective environmental ministries are perceived as the 'real implementers' (Lenschow 2005). The role of the Commission is limited, but where Council ministers do not share the same objectives they have fallen back to relying on the Commission (Franchino 2007). The Commission has become more bureaucratic and progressively more politicised in order to build consensus among the Member States (Barnes 2011: 43).

Figure 3. Policymaking within the EU



Source: Barnes 2012: 43.

The judiciary consists of the Court of Justice of the European Union (CJEU), which as of late has had an overlooked role. In general, it ensures compliance with EU law by looking at the implementation and enforcement of existing EU laws. The CJEU can impose pecuniary sanctions for poor or non-compliance. So far, several states have been fined for not complying with regulations as set out by the Commission. All in all, the CJEU is in charge of developing legal norms. National courts can also seek guidance from the CJEU. The CJEU has long been hailed as an independent motor of European integration, while being conditioned by Member States' preferences. The problem of over-constitutionalisation of EU law has been pointed out and entails certain political detriments for the EU and as well as for the policymaking of Member States (Blauberger und Schmidt 2017). It is expected to play a greater role in the future regarding public climate cases.

The European Environmental Agency (EEA) has an advisory function in terms of providing independent research and provides information on how to develop, adopt, implement and evaluate environmental policy.

2.3.2 Member State constellations and interest groups

At the Member State level, constellations of conflicts emerged at an early stage (see also Fischer and Torgensen 2020, Schild 2020). The Council is characterised by segmentation, and powerful state alliances consisting of different constellations[14]. One alliance consists of northern countries such as Germany, the Netherlands, Sweden and Denmark, which often take a lead in the Council. 'Laggards' consists of poorer southern countries (e.g. Greece, Spain and Portugal) and new Member States from eastern Europe. The UK was once in a somewhat isolated position and long considered 'the dirty man' of Europe, which changed after the 1990s (Jordan 2002, Lenschow 2005: 314). Before the UK exited the EU, it was also discussed as a 'paradoxical leader' in EU climate policy, characterised by entrepreneurial and cognitive leadership, especially at the international level (Rayner and Jordan 2011). Cognitive leadership for instance was exhibited through the UK's sponsorship of major scientific events and ongoing efforts to reframe climate change as a complex endeavour that reaches beyond environmental spheres (ibid.).

Another important interest group is the Visegrád Group, also known as V4, consisting of Poland, Slovakia, Czechia and Hungary (see Schild 2020). The Visegrád Group has played an active role in Brussels in terms of hampering a more ambitious EU climate policy. Another alliance, the Baltic Council, consists of Estonia, Latvia and Lithuania. Under the guidance of Poland, these two interest groups have reconvened in the past in light of similar interests and ultimately watered down the climate and clean energy package of the EU in 2008 (see Jankowska 2011).

These different objectives and interest groups within the Council are also a reflection of different degrees of industrialisation and development demands, as well as historic alliances and path dependencies in terms of European integration. Climate change has increasingly fulfilled an important role as part of EU enlargement processes. The EU's formal institutional structure and accession of the 10 central and eastern European countries (CEECs) in 2004 was guided by the EU's environmental foreign policy coupled with intense negotiations over the environmental chapter and implementation of the *acquis communautaire* (hereinafter the *acquis*), the accumulated legal basis of the European Community. Aside from core legislation, the *acquis* consists of principles, policies and objectives – many of which relate to environmental protection standards and are intended to approximate the environmental laws of CEEC countries to European standards. EU enlargement processes have expanded the horizontal extension of the (geographical) scope of EU authority. To some extent, the extension of EU authority has also brought forward a shift of responsibility from the Member State level to the EU. The EU *acquis* has nonetheless been criticised for not providing sufficient guidance to render national climate laws obsolete (Duwe 2020).

[14] For an overview of the role that different countries have taken, see Wurzel and Connelly 2011: 95ff (Part III: The EU and its Member States).

In addition to these Member State-based interest groups and constellations, countries are coordinating at the bilateral level. It has been pointed out that the potential for tension between Member States of different sizes, which is inherent in all federal structures, remains rather latent in the EU (see Schild 2020).

2.3.3 Environmental interest groups and regional actor alliances

In terms of actor alliances and civil society, the list is manifold. **Environmental interest groups are** said to act as pressure groups in the policy formulation phase, mobilise the general public and offer expertise as think tanks (Lenschow 2005: 318). One earlier example is the 'Gang of four' or G4, a parody of the G7 meetings, consisting of different environmental NGOs (ENGOs) – that is, the European Environmental Protection Bureau[15], Friends of the Earth, the World Wide Fund for Nature, and Greenpeace International. The European Environmental Protection Bureau was long considered the only major ENGO (Wurzel et al. 2016). These ENGOs have had an influence on the EU's climate and environmental policymaking. They gradually grew into the 'Gang of seven', including the European Federation for Transport and Environment, Climate Network Europe and BirdLifeIn (Lenschow 2005) and then the G10, with more than 20 million people (see Wurzel et al. 2016). In subsequent years, the list proliferated further, with CAN Europe (former Climate Network Europe) becoming an important international network of NGOs on matters specifically related to climate change issues. Today, it consists of over 170 member organisations in 38 countries, over 1 700 NGOs and 'more than 40 million citizens'.[16]

These ENGOs have not just played an important role in calling for greater policy ambition and keeping the pressure on politics high, they have also been important in terms of framing the public debate about climate and energy issues. They too have emphasised the need for greater inclusion of non-state actors into formal decision-making processes, and improved the transparency and openness of the EU (Wurzel and Connelly 2011: 215). Wurzel et al. (2016) examined the role of ENGOs in EU climate politics, that is, pushing for EU leadership. The organisations played an increasing role during the Copenhagen Climate Conference (COP15) and Paris summit (COP21) by setting up much larger ad hoc alliances. Table 3 provides an overview of the most important ENGOs, non-environmental NGOs, think tanks and research institutes active in Brussels and the EU.

[15] The European Environmental Protection Bureau was founded 1972 and is itself a federation of 160 member organisations (2020) from many different EU countries.

[16] See: 'Members directory', CAN Europe website, accessed 20 June 2021 at https://caneurope.org/members/

Table 3. NGOs, research institutes, funders and networks active on EU climate change issues

Most active large ENGOs active on EU climate change policy: • CAN-Europe, FoE-Europe, Greenpeace and WWF
Small specialised ENGOs active on specific EU climate issues: • Bellona Europa, Carbon Market Watch, Client Earth and E3G
NGOs other than ENGOs active on EU climate change policy issues: • ACT Alliance Europe, Christian Aid, CIDSE and Oxfam
Think tanks and/or research institutes active on climate change: • CEPS, Ecofys, Ecologic, European Policy Centre, IDDRI and Öko Institut
Foundations which fund NGO activities on EU climate change issues: • ECF, Oak Foundation, Kann Rasmussen Foundation
Examples of networks and ad hoc *coalitions active on climate change:* • *General network periodically active on climate change issues:* Green 10 (made up of BirdLife International, CAN-Europe, Central and Eastern Europe (CEE) Bankwatch Network, EEB, HEAL, FoE-Europe, Greenpeace, Friends of Nature International (NFI), T&E and WWF) *Specific climate change related networks:* Coalition for Energy Savings *EU 2030 climate and energy package:* • Coalition for Higher Ambition, *2015 Paris climate conference (COP21):* • Coalition Climate 21 *2009 Copenhagen climate conference (COP15):* • Global Coalition for Climate Action, Tcktcktck

Source: Wurzel et al. 2016: 223.

Other actor alliances, such as transnational municipal networks, have played an increasing role in global and EU climate governance. These alliances include organisations such as ICLEI, EUROCITIES, CEMR or the Covenant of Mayors (see also Bäckstrand 2008, Kern et al. 2009, Kern 2012).

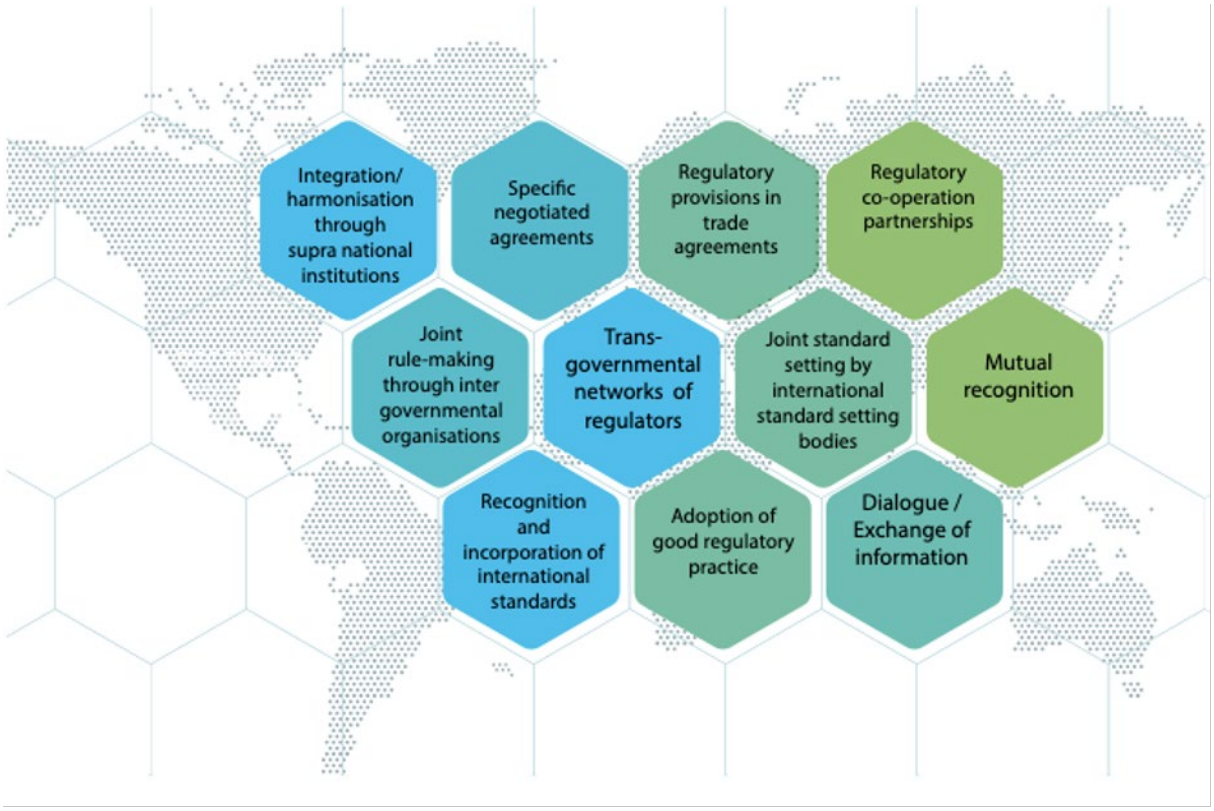
The active demands of and push by ENGOs for the EU to take a leadership role and their lobbying of the EU in light of this key concern are met by the strong position of business actors and private organisations, exercising structural power deriving from their economic strength (Grant 2011). These include consultation stakeholders and representatives from different sectors, such as agricultural and rural development, aviation lobbies or the automobile industry (e.g. European Automobile Manufacturers' Association). There has been a growing dominance of regional actor alliances and multi-stakeholder initiatives, as well as formation of informal networks for different aspects of climate policymaking. One prominent example is the German energy industry in the case of the Renewable Energy Directive[17].

[17] The many companies, consultation stakeholders and interest groups of the private sector that impact the EU climate governance landscape are beyond the scope of this report. For an example of lobbying efforts in the energy sector, see Inga Margarete Ydersbond. 2012. 'Multi-level lobbying in the EU: The case of the Renewables Directive and the German energy industry' published with the Fridtjof Nanens Institutt, September 2012.

2.4 INTERNATIONAL REGULATORY COOPERATION AND CLIMATE POLICY

International regulatory cooperation (IRC) is seen as a means to tackle cross-border issues, account for externalities and reconvene the diverging policy directives of different actors and key international players (Golberg 2019). Its goal is to eliminate unnecessary regulatory divergences between domestic jurisdictions and regional/supranational governance entities, such as the EU (OECD 2013). Its core field are trade agreements, and their original purpose is to remove non-tariff barriers to trade. The OECD (2013) has developed a typology of such regulatory cooperation, consisting of 11 different categories of IRC mechanisms. Regional agreements with regulatory provisions such as regional trade agreements or economic cooperation are one example. In the climate change context, trade agreements such as CETA and TTIP stand potentially in conflict with climate policy targets and run the risk of eroding environmental protection (Trew 2019). Another IRC mechanism includes mutual recognition agreements as a principle of international law, which recognise and conform with legal decisions taken by other authorities. A further type of IRC is regulatory partnerships between countries to cooperate on better regulation and minimise regulatory divergences (OECD).

Figure 4. Revisiting the 11 dimensions of OECD international regulatory cooperation



Source: OECD 2013; 2018: 5.

To this end, in pluralistic trade agreements such as CETA or TTIP, bodies for regulatory cooperation are set up. The partners to the agreements (i) inform each other on planned

regulation with the potential to impact on trade, (ii) conduct impact assessments on these regulations and (iii) run programmes on existing regulations to remove or harmonise these for enabling trade. Such mechanisms have been criticised by environmental NGOs (and trade unions on issues of social protection) for bearing the risks of lowering standards for the sake of trade. In response, sustainability chapters of varying concreteness and bindingness have been integrated into trade agreements, and non-governmental actors are invited to participate in bodies on regulatory cooperation.

3. EU actorness in climate policy across dimensions

The EU is often seen as a prominent actor that played a key role in the ratification of the Kyoto Protocol based on strong EU cohesion and flexibility agreements (e.g. see Pavese and Torney 2012). During the Copenhagen climate summit (2009), EU actorness was openly questioned as it failed to forge bridge-building coalitions and only played a subordinate role in reaching the political agreement of the Copenhagen Accord (Bäckstrand and Elgström 2013). In contrast, the high level of EU goal achievement in Paris and the EU's crucial role in the creation of a High-Ambition Coalition was emphasised (Oberthür and Groen 2017).

Looking ahead, Glasgow is seen as a particularly crucial moment for climate action based on expectations of finishing the work of COP25 in Madrid (2019) and manifesting the long-term target of climate neutrality by 2050 in the form of a (revised) European climate law. The summit was originally scheduled to take place at a particularly significant time, shortly after the US presidential elections. Due to the Covid-19 pandemic, the summit was postponed to 2021, leaving more time for the EU to shape its strategy and design a post Covid-19 recovery plan that includes the climate agenda.

Because these four climate summits are in some form central to the evolution of EU actorness in climate policy and have been discussed as such, this section takes a closer look at the dynamic of EU actorness by examining the different actorness dimensions around Kyoto (1997), Copenhagen (2009), and Paris (2015), and where case data were available, providing a glimpse towards the Glasgow summit.

Climate policy is a multi-faceted problem that calls for integrated policy responses in numerous policy sectors such as agriculture, energy, infrastructure, research and transportation. As a result of its cross-cutting character, climate policies need to reconcile different sectoral interests (see also Lüpke and Well 2019). This section will reflect upon the evolution of EU actorness in climate policy and other related policy areas. Overall, EU actorness has increased across time and dimensions, but across some dimensions more than others. Over time, EU actorness has been stable and has become especially strong in the authority, autonomy, attractiveness and opportunity dimensions. Its recognition suffered some setbacks in Copenhagen but in this dimension it is strong overall today. Dimensions where the EU is lacking behind are cohesion and credibility. This section will examine why this is the case.

Table 4. Evolution of EU actorness in climate policy across dimensions and time

Phase	Kyoto	Copenhagen	Paris	pre-Glasgow
Period	1998	2009	2015	2020-2021
Authority				
Autonomy				
Cohesion				
Recognition				
Attractiveness				
Opportunity/necessity to act				
Credibility				

Legend	
Low	
Low/medium	
Medium	
Medium/high	
High	

3.1 AUTHORITY

This section lays out the formal legal competence of the EU in climate policy. Climate policy is a field of *shared competence* between Member States and the EU, as defined by Article 4(2e) of the Treaty on European Union. This means that both the EU and the Member States may adopt legally binding acts. Amid limited supranational authority, the EU's legal competence in climate policy has significantly increased over time, measured through the number of (binding) legal mandates in the form of primary laws (treaties) and secondary laws (regulations, directives and decisions) and means to enforce them[18]. The definition relates to *de jure* authority – the authority the EU has over Member States against the background of increasing legal competence at the global governance level.

Table 5. Authority assessment

Phase	Assessment (low to high)	Comment

[18] For a definition of different types of legal acts, refer to European Union, 'EU Law', accessible at https://europa.eu/european-union/eu-law/legal-acts_en.

post-Kyoto	Moderate to low	Compared with other EU laws, climate laws represent a low share but the burden-sharing agreement and ETS are put into place, increasing external EU authority over the then 15 Member States. As an area of shared competence, the EU has increasing external authority over environmental policy; climate change appears as a theme. Post-1997: establishment of the EU ETS positions the Union as an authority between the national and international levels. As part of the EU ETS Directive 2003, the Commission can start infringement proceedings and impose sanctions against Member States if government legislation is not properly implemented.
Copenhagen 2009	Moderate	Ahead of Copenhagen, climate change appears as an explicit objective of EU environmental policy in the Treaty of Lisbon (2008). Aside from increasing its legal competence in terms of the number of legal acts, the authority of the EU over its Member States remains moderate in term of climate being a shared legal competence. Phase II of the ETS: the penalty for non-compliance of EU Member States is increased. Carbon capture and storage (CCS) is put into place. With it, the CCS Directive establishes a legal framework for the safe storage of CO_2, which applies to the territory of the Member States, as environmentally safe storage cannot be sufficiently achieved by Member States individually. The directive regulates the amount of storage of EU Member States, but Member States retain the right to determine the areas within their territory from which storage sites may be selected.
Paris 2015	Moderate	A staggering number of legal acts are adopted post-2000, peaking particularly after 2015, leading to an EU long-term strategy (2020). This long-term strategy also relates to Regulation 2018/1999, which stipulates that the target for renewable energy for 2030 of at least 32 % is binding not just at the EU level but will need to be fulfilled through Member States and is up for review by 2023. Aside from increasing legal competence, the authority of the EU over its Member States remains moderate in terms of climate being a shared legal competence.
Glasgow 2021	Outlook: Moderate to high	European climate law is proposed to manifest climate neutrality by 2050, for the first time enshrining a long-term goal. It is expected to inspire a 'legislative firestorm', yet continues lacking of efficient enforcement mechanisms and stringent policy monitoring. The proposal to amend Regulation (EU) 2018/1999 (European Climate Law) would require EU institutions and Member States to build upon their climate measures and to issue recommendations to Member States for corrective action if their efforts are inconsistent with the emissions trajectory. In 2019, the EU experienced the greatest number of infringement cases (327) related to the environment, with the European Commission taking legal action against delinquent Member States.
The EU has moderate to high actorness regarding EU authority over its Member States, which continues to be an area of shared competence. When it comes to legal competence in terms of the amount of primary and secondary		

laws, EU authority has been consistently increasing throughout the years. EU provisions are strong regarding EU emissions monitoring but there are few enforcement opportunities concerning national progress, with only limited effectiveness of the existing liability mechanisms for implementation by Member States. The EU ETS Directive of 2003 is one example of a long-term target (decarbonisation by 2050), which is currently not included in EU law but proposed. The proposed regulation could, however, only softly increase EU authority over its Member States through recommendations. Besides the possible future climate law, the EU has important responsibilities for climate-relevant policy areas, e.g. in product regulation (the Ecodesign Directive), provision of subsidies, agricultural policies and trade policies.

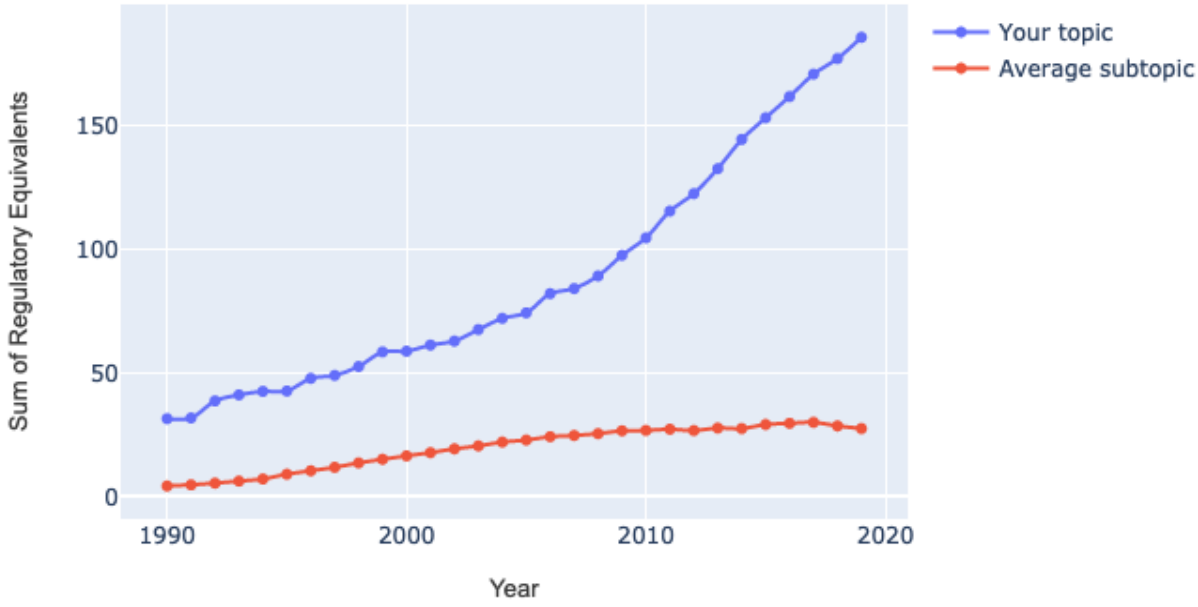
3.1.1 Changes over time: Shifting authority from Member States to the EU

The EU's climate policy aims were gradually enshrined in the EU Treaties. In 2008, the Treaty on the Functioning of the European Union (TFEU) consolidated it in Article 191, which makes combating climate change an 'explicit objective of EU environmental policy'[19]. In the broader context of environmental protection, it has been argued that the constitutional setting has been continuously strengthened as an environmental right as per Article 11 of the TFEU (Nowag 2018). Article 11 TFEU states: 'Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development' (ibid.: 1). Article 11 is not just emblematic of the growing political weight of environmental concerns (ibid.) but also structures environmental legislation by EU Member States and the environmental action of individuals as well as NGOs. Although Article 11 is not a self-standing right, but relies on the enabling function of pre-existing rights to advance a legal claim, Article 11 TFEU binds national courts when Member States are applying EU law (ibid. 11ff.).

Beyond Article 191, the EU Reform Treaty, also known as the Treaty of Lisbon (2007), had several important implications for EU climate change governance and policy through embedding climate change and energy security as two important cornerstones, further centralising related policy tasks away from Member States. The Treaty changes are seen as a helpful progression for embedding environmental 'rules of the game' into EU policymaking (Benson and Jordan 2010).

[19] See EUR-LEX, original Article 191, available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12008E191:EN:HTML

Figure 5. The EU's accumulated legal authority in climate policy, environmental protection and energy, 1990-2019



Data source: key word search in EUR-Lex; key words used: climate change, climate change policy, climate mitigation, climate change adaptation.

3.1.1.1 EU ETS Directive 2003

The initial 'burden-sharing' agreement laid the groundwork for the adoption of the ETS Directive in 2003, manifested in Article 17 of the protocol. On the one hand, the ETS is seen as a precondition for the EU to ratify the Kyoto Protocol in 2002 and for reaching the European Kyoto targets (Klepper and Peterson 2006, Benson and Jordan 2010). On the other hand, the EU ETS Directive is exemplary in increasing EU authority over its Member States. Before phases I (2005-2007) and II (2008-2012) of the EU ETS were launched, each country decided on the allocation of their emission allowances through national allocation plans (NAPs). This process was guided through the Commission and was politically sensitive, as there were only broad criteria for Member States on how to establish their allocation plans. The beginning of the EU ETS marked a period of testing, with greater flexibility, interpretability and less authority of the EU. Thus, the initial phase was characterised by a loose framework and total Member State freedom (Convery 2009). In the subsequent phases, however, the Commission began to limit this freedom to the extent that harmonised allocations will be achieved (ibid.: 394).

Before the system of NAPs was replaced in the third ETS phase (2013-2020), the EU had the authority to reject NAPs and ask Member States for changes, e.g. to reduce national caps because they were not in line with the country's Kyoto targets. Once the NAPs were approved by the Commission, installations, as set forth by the country-wide reduction targets in the NAPs, received permits that could be traded (Bayer and Aklin 2020). If installations ran short of permits to cover emissions, they were punishable by EUR 40 from 2005 to 2007 and EUR 100

since 2008 per tonne of carbon (tCO_2) (ibid., EC 2015: 80ff.). This compliance procedure is based on a penalty and enforcement structure and concerns companies failing to surrender the allowances owed (EC 2015). In addition to punishment for failure to surrender the required number of allowances, EU Member States can be penalised if they breach the EU ETS Directive's requirements as stipulated in Article 16(1). Another important aspect of increasing EU authority in the context of the EU ETS is the qualified majority mechanisms, which means that decisions can be taken without unanimity (Convery 2009).

The ETS itself is divided into four phases. The initial ETS Directive was extended to include aviation in the second commitment phase of the Kyoto Protocol. As part of the climate change and energy package, five directives covered the extension of the ETS. The EU ETS is well anchored in European law and has changed over time.

Table 6. Important changes in ETS legislation over time

Phase of the ETS	I: 2005-2007	II: 2008-2012	III: 2013-2020	IV: 2021-2028
Important changes in legislation	European Parliament passes the ETS law (2003) regulating the 1st and 2nd trading phase Infrastructure for monitoring, reviewing, and verifying is set up Penalty for non-compliance is relatively low	Tighter emissions cap is imposed The ETS scheme is expanded to include aviation Carbon capture and storage (regulation) Penalty for non-compliance is increased	Modification of the allocation method supervised by the EU ETS Auctioning Regulation and EU ETS Directive, setting new criteria like transparency, predictability, cost-efficiency, fair access to auctions, etc., from the EU to its Member States	Legislative proposal for the market stability reserve, aiming to reduce the amount of surplus allowances Better rules to address carbon leakage Full review of the ETS Directive planned by 2026 Revision of the free allowance scheme, more flexible rules

Sources: Climate Policy Info Hub, European Commission, Council of the European Union.

3.1.1.2 Post-Kyoto: The effort-sharing scheme evolves

Subsequently, the sharing of emission allowances became a legally binding part of the EU's instrument of ratification of the Kyoto Protocol and a key instrument for subsequent climate policy efforts at the EU and global levels. The burden-sharing agreement was further revised and became known as the effort sharing scheme post-2008. Since then, the scheme has grown into more profound effort-sharing legislation, which consists of an Effort Sharing Decision (ESD) and Effort Sharing Regulation[20]. The ESD is part of the EU's 2020 Climate and Energy policy package, which came into effect in 2009 and one of the main legislative pieces aiming to ensure

[20] For more details on the Effort Sharing Regulation, see European Commission, 'Effort sharing: Member States' emission targets', last accessed 3 November 2020 via https://ec.europa.eu/clima/policies/effort_en

the EU reaches its energy targets for 2020[21]. The ESD set annual emission reduction targets of 10 % for 2020. The decision is central to defining the trajectories for legally binding emissions by Member States between 2013 and 2020, by requiring countries to perform annual monitoring and compliance checks. The ESD is considered a 'flexible emissions ceiling', as it offers some flexibility in annual emissions allocations between the years, the use of different instruments and emphasis on different sectors to reach the targets (EC 2016). An evaluation of the ESD finds that it has been partially effective in stimulating new policies at the national level in some Member States, but that there is insufficient evidence to quantify the overall impact of the ESD on GHG emissions (EC 2016: vi).

As the EU has pointed out, many EU policy instruments related to GHG mitigation are directives and therefore have to be implemented by Member States and are likely to be done so in very different ways. Climate policy monitoring varies considerably, as the European Commission does not provide clear technical guidance on what 'policy' and 'measure' refers to (Schoenefeld et al. 2019). Reporting obligations of the Member States to the EU level are regulated under the Monitoring Mechanism Regulation, a subsequent mechanism for the implementation of the Kyoto Protocol (based on Decision No 280/2004/EC), which came into force in 2013. Before that, the EU had developed a legal base for Member State monitoring by systematising Member State practices and creating a monitoring mechanism for national GHG emissions. In contrast to policy monitoring, national GHG emissions reporting is described as a relatively stringent system (Schoenefeld et al. 2019).

Policy monitoring is an important aspect of policy evaluation and implies the process of collecting data to determine the merit and impact of public policy. It is considered important for measuring effectiveness and transparency (e.g. Schoenefeld et al. 2019, Aldy 2018). Up to this point, policy monitoring in the EU has not been mandatory and stands out by its low level of standardisation, resulting in challenges in the use of available policy monitoring data. In the preliminary evaluation of the ESD, the impacts of EU-wide policies could not be fully assessed, due to inconsistent reporting by Member States (ibid.: vii). Policy monitoring provisions are expected to be strengthened as part of the emerging Energy Union and as an outcome of the Paris Agreement. However, to date the main focus has been on the effectiveness of the EU ETS.

3.1.1.3 Copenhagen: EU ETS Regulation evolves but Member States retain authority

Authority in the sense of Member States delegating responsibility to the EU and being flexible in deviating from the negotiation position was low in Copenhagen (Groen and Niemann 2013). The EU had only a very limited ability to overcome diverging Member State preferences and solve disagreements, as it was obliged to act within the constraints of the negotiation position. As a result, the EU had to comply with concrete points of the negotiation position that was approved by the Member States (ibid.).

[21] See EUR-Lex, '2020 climate and energy package', last accessed 3 November 2020 via https://eur-lex.europa.eu/summary/EN/legissum:2001_8

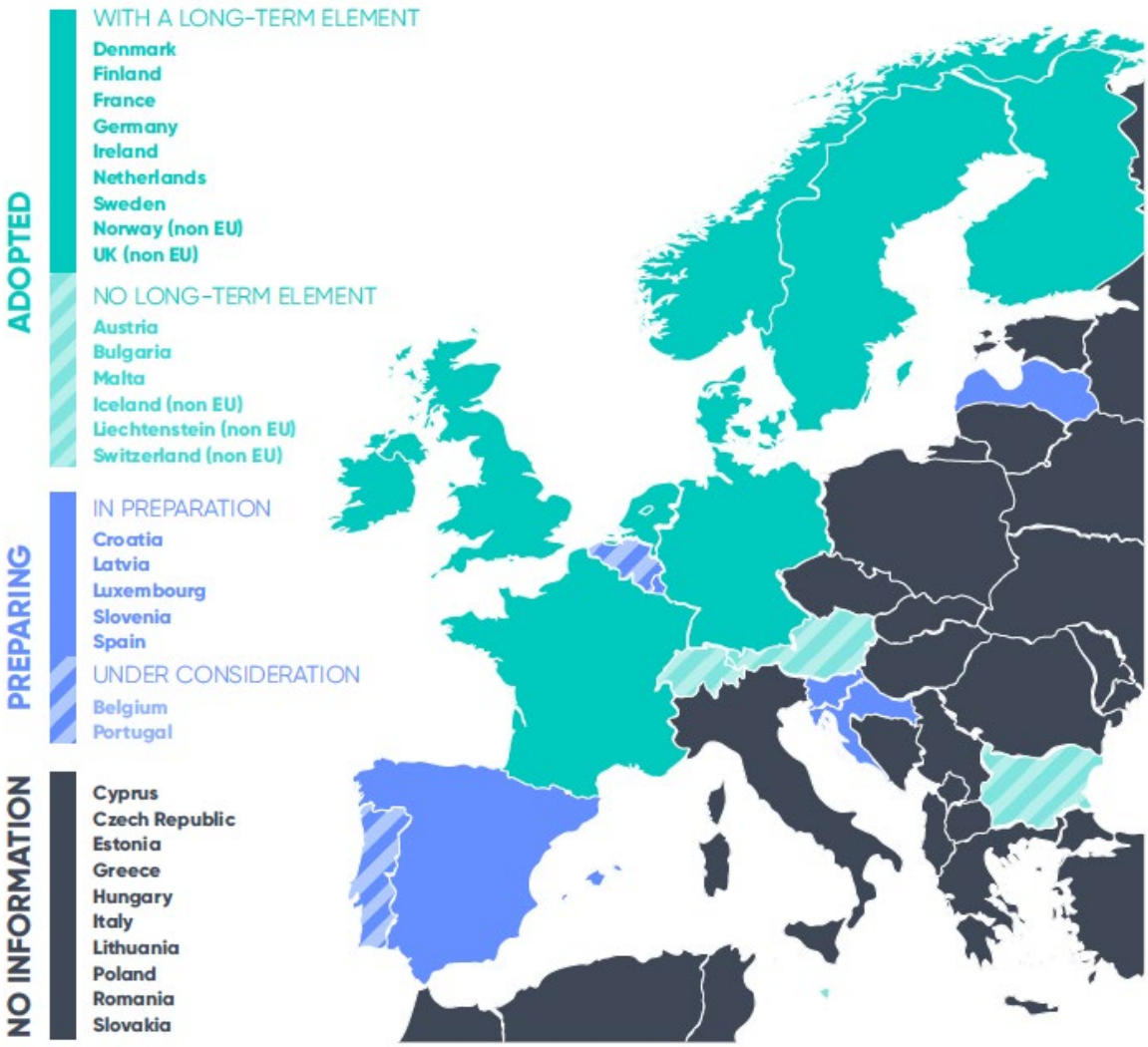
This was counterbalanced by an important regulation that was brought forward at the time of Copenhagen, providing for differentiated effort-sharing targets to reduce emissions in policy sectors not covered by the EU ETS (e.g. transport, housing, agriculture) and a directive for a new phase of the ETS, extending trading to a third phase (2013 to 2020) (Burns et al. 2012, Rayner and Jordan 2016). Beyond that, and contrary to common perception, several important legislative measures were initiated during Copenhagen, including the first legal framework for safe carbon capture and storage (CCS) and a regulation on limiting CO_2 emissions from cars, replacing a voluntary agreement with the automobile industry (for a full list of core legislative pieces, see Burns et al. 2012: 61). Another notable development as part of the EU ETS Regulation was the introduction of an annually declining cap for the whole EU, and the phasing-in of auctioning to allocate allowances. The CCS Directive established a legal framework for the safe storage of CO_2, which applies to the territory of the Member States, as environmentally safe storage cannot be sufficiently achieved by Member States individually. The directive regulates the amount of storage of EU Member States but Member States retain the right to determine the areas within their territories from which storage sites may be selected.

3.1.1.4 Paris: Advancing EU legislation and national climate laws, but missing guidance on long-term strategies

Like Kyoto, the Paris Agreement and EU efforts in this context are understood as an impulse, which triggered national climate laws across Europe (see also Duwe et al. 2020). Today, the majority of EU countries have adopted an overarching climate protection law or are in the process of doing so. In terms of authority, current EU legislation commits Member States to obligations beyond the Paris Agreement, but there is no substantial guidance through EU rules that ensures the connection between long-term and short-term targets, and ensuring that the targets are actually met.

A further important piece of post-Paris legislation is the Regulation on the Governance of the Energy Union, which was proposed in November 2016. This regulation responded to long-term outlooks and goals as enshrined in the Paris Agreement but is said to lack both detail on the content of long-term strategies and a guiding document for Member States (Duwe et al. 2017). As a major innovation, the regulation adapted monitoring practices by requiring Member States to adopt National Energy and Climate Change Plans.

Figure 6. Geographical overview of the status quo of climate laws across Europe



Source: Duwe et al. 2020: 9.

3.1.1.5 Post-Paris: Reforming effort sharing and increasing EU authority through stronger compliance rules

The ESR was adopted in 2018 as part of the EU's commitment to 'building an Energy Union with a forward-looking climate policy' and implementing the Paris Agreement[22]. The regulation covers all GHG emissions that are not covered by the EU ETS or the LULUCF Regulation. The main ambition under the ESR is to reduce non-ETS emissions by at least 30 % by 2030 (2005 levels)[23]. The ESR established two key liability mechanisms for EU Member States: (i) financial sanctions for non-compliance by Member States related to national reduction obligations in the non-ETS sector and (ii) an infringement procedure. A preliminary ESR 'Inception impact

[22] See EUR-Lex, Regulation (EU) 2018/842 of the European Parliament and of the Council, last accessed 3 November 2020 via: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32018R0842

[23] For more information, see European Commission, Effort Sharing, Member States' emission targets, accessed 21 October 2020 at: https://ec.europa.eu/clima/policies/effort_en

assessment' points to the need for adapted compliance rules with 'stronger *ex ante* incentives for compliance' (EC 2020b: 3). The ESR is currently under review with the Commission considering the expansion of emissions trading to existing effort-sharing sectors and defining new targets, areas of flexibility and compliance rules, as well as the potential impacts of the Covid-19 crisis (ibid.). The problem definition of the ESR impact assessment acknowledges that the ESR emissions reduction target of 30 % is inconsistent with the 2050 climate-neutrality target under the European Green Deal.

3.1.2 Outlook: EU climate law could softly increase EU authority

In 2019 (pre-Glasgow), the EU experienced the greatest number of infringement cases (327) related to the environment, which is the highest number of any area (EC SG 2020). For instance, the EU launched infringement procedures against 17 Member States to improve implementation of the EU Environmental Impact Assessment Directive. Aside from a stable number of open cases, the number of new cases increased by 20 %. This means that the European Commission has increasingly used its authority to take action against delinquent Member States. This high number of cases against Member States for breaking environmental rules is also indicative of (a lack of) cohesion (see below).

Despite the high expectations of increasing EU authority over its Member States, the proposed climate law of the EU to manifest climate neutrality by 2050 has been criticised for letting Member States off the hook too easily, as they do not have to reach climate neutrality on their own and recommendations put forward by the climate law are not legally binding, with the EU having very little authority to punish its Member States (Donnerer 2020). Yet, the proposal to amend Regulation (EU) 2018/1999 (European Climate Law), as set out in the European Green Deal, would require EU institutions and Member States to build upon their climate measures and could result in recommendations to Member States for corrective action if their efforts are inconsistent with the emissions trajectory. This could softly increase EU authority.

3.2 AUTONOMY

Aside from climate policy expansion at the legal level, cross-sectoral policy integration also occurred in terms of (new) institutional arrangements, increasing the EU's ability to set priorities and determine agendas related to climate change. The EU's capacities are examined below in terms of its institutional set-up (intra-EU organisations) and climate policy mainstreaming as part of EU budgets ('climate proofing')[24], but also in terms of increases in the EU's knowledge base and monitoring capacity.

[24] Due to a lack of consistent data on staff and budget, and the limited scope of time, these quantitative aspects could not be measured relative to the individual Member States.

Table 7. Autonomy assessment

Phase	Assessment (low to high)	Comment
Kyoto 1997	Low to moderate	Limited institutions work on climate policy as a distinctive policy field, but climate change policy is subsumed in areas of environmental policy. There is an absence of consistent and coherent monitoring of climate objectives and inputs.
Copenhagen 2009	Moderate	Pre-Copenhagen: a comprehensive EU climate policy evolves, increasing capacity with intra-EU organisations related to climate policy gradually being built. Post-Copenhagen: DG CLIMA splits from DG ENV amid growing salience of climate policy backed by new institutional arrangements.
Paris 2015	Moderate to high	Climate is mainstreamed in the EU budget for agricultural policy, cohesion and structural policy, research and innovation.
Glasgow 2020-2021	Moderate to high	The climate budget will increase by a small margin (5-10 %). Research and knowledge competence is strong. The budget reaches an all-time high, boosted by a Covid-19 recovery package focused on a green recovery. Reform of EU budgeting will be central, along with improved coordination, reporting & monitoring mechanisms, the potential to improve capacity for policy evaluation and citizen participation.
The EU has moderate to high actorness when it comes to autonomy as illustrated by a significant increase of formal capacity in terms of financial and human resources as well as knowledge and expertise related to climate policy over time. Climate mainstreaming has occurred in key policy areas with considerable spending programmes such as the common agricultural policy and cohesion and structural policy. As part of these efforts, climate budgeting has become the key policy instrument for increased EU climate efforts. Another core aspect of increased EU autonomy lies in the research activities of the EU Framework Programmes, which have progressively diverted resources to climate-related issues. The European Commission has built up considerable capacities for policy assessment, including the evaluation of climate policies of the Member States. At the same time, the EU has doubled its funds and the role of climate finance to support developing countries since 2013. The EU has only moderate autonomy when it comes to meaningful mechanisms for coordination, budgeting authority, coherent monitoring and reporting mechanisms. Aside from improved coordination and monitoring mechanisms, new governance arrangements for the increased participation of civil society actors will be key crucial the EU to increase its autonomy in climate policy further.		

3.2.1 Changes over time: Significant increase of EU autonomy

Autonomy has increased through institutional capacity building in intra-EU organisations. At the same time, the mainstreaming of climate policy has occurred as part of EU budgeting in the three fields of agriculture, cohesion and structural policy, and research and innovation. Climate proofing the EU budget is a distinctive policy instrument used by the EU, which has increased its autonomy.

3.2.1.1 Intra-EU organisations: Making climate policy more explicit in Directorates-General

In addition to its role in climate policy, the European Commission is seen as a dominant agenda-setter that has developed into a quasi 'normalised executive', characterised by distinct

organisational and behavioural patterns commonly associated with national governments (Wille 2013, Hustedt and Seyfried 2017). The Commission is organised in the form of Directorates-General (DGs), which are considered policy departments charged with developing, implementing and managing EU policy, law and funding programmes[25]. In line with the process of centralisation within the Commission based on the formation of a European administrative centre (Trondal 2012, Hustedt and Seyfried 2017), the relationship between the Commissioners' cabinets and DGs has become denationalised, signified by great degrees of cooperation, substantial policy expertise and internal 'position formation' of the DGs (Hustedt and Seyfried 2017: 368).

Although the EU has been a prominent player in international climate change politics since the beginning, a comprehensive EU climate policy did not take off until the 2000s with the ratification of the Kyoto Protocol and launch of the European Climate Change Programme (see also Damro et al. 2008, Delbeke and Vis 2016). The 5th Environmental Action Programme (EAP) (1993) included climate change as a 'theme' and the 6th EAP (2002-2012) mentioned climate change as one of its four priority areas (Damro et al. 2008, Orlando 2014). The EU's complex internal design and institutional capacity related to climate change policymaking has been evolving against this background. Previously, climate policy started off as part of environmental policy, with EU institutions taking a broader stance on environmental protection and sustainability rather than on climate policy as a distinctive policy field (for an overview of the evolution of autonomy related to sustainability, see the SDGs Deep Dive). Until climate policy rapidly turned into a distinguished field with separate institutions, it had been considered an aspect of EU environmental policy. With growing prominence and autonomy, climate policy progressively detached from environmental policy through the creation of its own Directorate-General for Climate Action (DG CLIMA) in 2010 (ibid.).

Previously, many climate policy efforts, such as the 2008 revision of the ETS, were anchored in the DG for the Environment (DG ENV), created in 1981. The spin-off into a separate DG for the climate has been argued as a special case for environmental policy coordination, with a greater focus on making climate change issues more explicit and also reflecting a shift in policy priorities from classical environmental policies towards a more salient climate policy (Lenschow 2020). Yet, research is needed on whether the spin-off of DG CLIMA has also led to a weakening of DG ENV. Further intra-institutional changes post-Copenhagen include those to the set-up of other DGs that relate to climate policy: DG Energy was split from DG Transport in 2010 and DG Enterprise and Industry was established in 2015. These intra-institutional developments speak to a clearer differentiation of more articulate policy fields and growing (institutional) competence.

Within the Commission, six DGs today hold competences related to climate policy. These are DG CLIMA, DG ENV, and the DGs for Energy (ENER), Enterprise and Industry (ENTR), Maritime Affairs and Fisheries (MARE) and Regional Policy (REGIO). Although the relationship between the 27 Member State Commissioners and the DGs has become more cooperative than earlier,

[25] See European Commission, 'How the Commission is organised', last accessed 5 November 2020 via https://ec.europa.eu/info/about-european-commission/organisational-structure/how-commission-organised_en

DGs hold different interests and are characterised by sectoral conflict patterns (Hustedt and Seyfried 2017).

In 2020, the European Commission had a total of 32 847 employees (EC 2020c). Of these, 259 had 'climate' in their job title. This relatively low number can be partially explained by the overlap between climate policy and other policy fields, such as sustainability and environmental protection, and distinctive policy sectors that are of relevance for climate policy (such as the DG for Agriculture and Rural Development (AGRI)). Furthermore, climate policy is mostly regulatory, while the more staff-intensive policies are spending programmes. Therefore, the number and share of staff provide little insight on the EU's autonomy.

3.2.1.2 Budgets: Mainstreaming climate policy in key policy areas

The EU budget is understood as a mechanism for increasing EU capacity through pooling resources. The multiannual financial framework (MFF) is the main instrument and sets an overall budget ceiling for the EU's expenditures and in that sense forms an 'overarching framework for the negotiations between the Commission, the Council, and the Parliament on the annual budgets for the duration of the financial framework' (Medarova-Bergstrom et al. 2011: 16). The Commission is in a strategic agenda-setting position and proposes the main priorities, which are formulated along broad policy areas ('headings') (see Table 8). The draft budget is then approved by the Member States in the Council and the directly elected members in the European Parliament. Both entities form the budgetary authority and amend the draft budget. The budgeting procedures have changed significantly over the years with 13 new Member States joining since 2004 and efforts on climate change taking a more prominent role (see also EC 2019: 5). With the entry into force of the TFEU, the European Parliament was granted greater leeway and is now on a par with the Council (for more detailed information, see Medarova-Bergstrom et al. 2011). Due to the progressive stance of the European Parliament on climate-related issues, the climate-proofing strategy of the EU may benefit from its enhanced role.

The EU budget is significantly different from national budgets, in that it is primarily used for investment and comprises a fraction of the combined national budgets of the EU Member States (2 % in 2020), and does not finance social protection, primary education or national defence (see EC 2019: 6, EC 2020a). Because MFF expenditure is grouped under different thematic priorities, and definitions of expenditure are not clear and transparent, it is difficult to determine what is actually spent on climate change (Medarova-Bergstrom et al. 2011).

Member States handle their contributions to the EU budget in their national budgets very differently (EU 2014). It is commonly stressed that the competences of formal EU institutions (such as for the EU *acquis*) are not yet well-suited to providing guidance for national governments (e.g. Duwe et al. 2020), as they only provide very general guidelines and definitions, and this is true also for the budgeting system (OECD 2017). Budgeting is characterised by an own-resources system, according to which Member States contribute mainly through their VAT- and GNI-based resources, with true resources losing importance (Krenek and Schratzenstaller 2019). The own-resources system is based upon the subsidiarity

principle, according to which Member States can decide autonomously about the sources financing their contributions (ibid.). Although the own-resources system provides steady and reliable revenues, it is considered an opaque, distorted mechanism lacking transparency and a direct link between EU revenues and citizens (EU 2014, OECD 2017, Krenek and Schratzenstaller 2019).

Table 8. Overview of European multiannual financial frameworks

Multiannual financial frameworks (MFFs)	Timeframe	Main focus/headings	Percentage spent on climate change
2nd MFF, 'Delors II package'	1993-1999	Social and cohesion policy and the introduction of the euro	No data
3rd MFF (Agenda 2000)	2000-2006	Establishing the single market and consolidating the multiannual framework programme for research and development	No data
4th MFF	2007-2013	1. Sustainable growth 2. Preservation and management of natural resources 3. Administration 4. The EU as a global actor 5. Freedom, security, justice and citizenship	Limited data: direct spending of €269 million under the LIFE+ Programme
5th MFF (€1 033 billion)	2014-2020	1a. Competitiveness for growth and jobs 1b. Economic, social and territorial cohesion 2a. Common agricultural policy: Market-related expenditure and direct payments 2b. Common agricultural policy: Rural development and direct payments 3. Fisheries and others 4. Security and citizenship 5. Global Europe 6. Administration 7. Compensation	20 %
6th MFF (combined with a temporary recovery instrument, NextGenerationEU) (€1 074 billion)	2021-2027	1. Single market, innovation and digital 2. Cohesion, resilience and values 3. Natural resources and the environment 4. Migration and border management 5. Security and defence 6. Neighbourhood and the world 7. European public administration	25-30 %

Sources: EC 2010, Medarova-Bergstrom et al. 2011, EC 2014, EC 2018b, EC 2020a, European Parliament 2020b.

In addition to direct climate spending through climate-focused funding programmes such as LIFE+ and mainstreaming distinctive policy targets and/or climate policy into (new) institutional settings, the mainstreaming of climate policy also occurred as part of EU budgeting for the period 2014 to 2020. The corresponding policy instrument, 'climate proofing', refers to the notion of 'turning the EU budget into an instrument to support the fight against climate change' (Adelle et al. 2008: 1). The methodology for estimating expenditure on climate change for the last budget cycle (2014-2020) tracks expenditure in the sense of efforts, whose primary purpose it is to meet climate mitigation and climate adaptation targets (EP 2020b)[26]. Accordingly, the 5th MFF was spending roughly 20 % on climate-related policy efforts, which was increased to 25-30 % for the 6th MFF (2021-2027) (see the table above).

The battles over other elements of the budget will be mainly fought in two policy areas: (i) the common agricultural policy (CAP) and (ii) cohesion policy[27]. Climate spending has been mainstreamed especially into these two policy areas since the 5th MFF (2014-2020).

3.2.1.3 Climate mainstreaming in the common agricultural policy

Climate mainstreaming into the CAP marks an important turning point for EU capacity building related to climate change. The share of climate change finance as part of the CAP has almost doubled from 2014 to 2015, and has overall increased in the last couple of years (see Table 9).

Table 9. Overview of the share of climate finance in the CAP, 2014-2020

Financing climate action in the 2014-2020 period
(commitment appropriations, € million in current prices)

Heading/Programme	2014	2015	2016	2017	2018	2019	2020e	2014-2020 Total
EAGF CAP Pillar 1	3,316	3,273	7,938	7,643	7,751	7,768	7,809	45,498
EAFRD CAP Pillar 2	3,037	10,468	10,756	8,269	8,275	8,453	8,464	57,722
Total CAP climate change finance	6,353	13,741	18,694	15,912	16,026	16,221	16,273	103,220
Total CAP budget	49,063	61,625	60,895	56,975	57,613	57,919	58,241	402,331
Share climate change finance in CAP budget	12.9%	22.3%	30.7%	27.9%	27.8%	28.0%	27.9%	25.7%
Memo items								
Total climate change finance in the EU budget	16,174	28,398	33,018	31,556	32,438	33,810	34,452	209,846
Share of climate-relevant spending in the EU budget	13.7%	17.9%	21.8%	20.2%	20.7%	20.9%	21.0%	19.7%
Share CAP in total climate change finance in EU budget	39.3%	48.4%	56.6%	50.4%	49.4%	48.0%	47.2%	49.2%

Source: Matthews 2020.

[26] However, the European Parliament uses caution to describe its most recent methodology (p.14): 'It is similarly not accurate to think of 20 % (or, for the next MFF, 25 %) being spent 'on' climate, and the remaining EU budget being spent 'on' other things adding up to the remaining 80 % (or 75 %) of the total. Delivery of climate objectives overlaps with the delivery of other objectives.' Accessed 12 February 2021 at: https://www.europarl.europa.eu/RegData/etudes/STUD/2020/654166/IPOL_STU(2020)654166_EN.pdf

[27] For more information on the predominance of net balanced logic and the path-dependent nature of EU budget negotiations, see: Andrew Sherriff. (2019). Investing in Europe's Global Role. The must-have guide for the negotiations of the Multiannual Financial Framework 2021-2027. The European Centre for Development Policy Management (ECDPM), 2019. Accessed 12 February 2021, https://ecdpm.org/wp-content/uploads/Europe-global-role_multiannual-financial-framework-2021-2027-must-have-guide-negotiations-ECDPM-April-2019.pdf

3.2.1.4 Climate mainstreaming in cohesion and structural policy

Climate policy was also formally mainstreamed into the EU's cohesion policy during the programme period 2014 to 2020[28]. The EU's cohesion policy is a central policy area of the European Union with growing importance for integration (Becker 2020). It is argued that cohesion policy today is one of the EU's largest expenditures and most visible signs of European solidarity (ibid.). The term 'cohesion policy' has gradually replaced former terms such as 'structural policy' or 'regional policy'. In this specific context, cohesion is less thought of as shared values, interests and principles, and rather as an all-encompassing term for pursuing politics holistically, reaching beyond sectoral or horizontal funding policies. At the same time, the multisectoral funding of activities in areas such as the environment, climate change, education and employment is expected to diminish regional disparities and strengthen EU cohesion. This is also manifested in Article 174 of the Working Methods of the European Union (see the cohesion dimension).

3.2.1.5 Growth of climate change finance

Aside from mainstreaming climate policy into different policy areas, the budget for climate change finance increased during the previous budget cycle (2014-2020), which dedicated almost a fifth of the budget to climate action and renewable energy. The growing role of climate change finance is an outcome of the Paris Agreement, in order to support developing countries in dealing with climate change. In this capacity, the EU, its Member States and the European Investment Bank have been the biggest contributors of public climate finance to developing countries[29].

Table 10. Draft of the previous budget cycle and estimates

(EUR million, commitment appropriations)

Programme	2014-2017				2018-2020 estimates			Total 2014-2020
	2014	2015	2016	2017	2018	2019	2020	
Total EU Budget	118.054,4	158.606,8	151.498,4	154.507,1	156.623,4	160.553,9	164.880,1	1.064.724,0
Climate Change finance	16.098,3	27.451,8	31.738,1	29.792,9	30.481,2	31.956,0	32.606,7	200.124,8
Share of climate	13,6%	17,3%	20,9%	19,3%	19,5%	19,9%	19,8%	18,8%

Source: Draft budget 2018, Statement of Estimates, p. 101ff.

3.2.1.6 An expanding knowledge base but limited power for monitoring and enforcement

In addition to EU sector-specific competence as part of the DGs, important EU competence has emerged from the Framework Programmes for Research and Innovation. They gained traction in the 1980s with the creation of multiannual research and technological development programmes. Throughout the years, these programmes have become the central EU instrument in research and technology policy (van Vught 2009). They have been considered a major tool for the European Research Area and seen as an enhanced opportunity for

[28] See the Directorate-General for Internal Policies, 'Policy Department B, Structural and Cohesion Policies', accessed 2 June 2021 at: https://ieep.eu/uploads/articles/attachments/c6717f0c-98bc-4ede-a662-edd0ce418a8b/Cohesion%20Policy%20and%20Paris%20Agreement%20targets%20report.pdf?v=63667241874

[29] For more details see: EC 'The EU: a leader in global climate finance', accessed 15 February 2021 https://ec.europa.eu/clima/sites/clima/files/docs/climate_finance_leaflet_en.pdf

collaboration (Must 2010), which as they evolved 'have enabled better coordination of research between the European Commission and national governments' (EU 2015: 4).

The FPs are administered by the DG for Research and Innovation. FPs are perceived to have increased European autonomy, as expressed by Walter Möning, chair of the Board of Governors of the EU's Joint Research Centre: 'I think that Member States have accepted that, in some areas, the lead should be at the level of the EU' (EU 2015: 4).

Research activities are bundled into a single programme, which is also seen as a major achievement that has enabled different stakeholders to get together and 'negotiate an ever-growing share of the EU budget' (EU 2015). When the EU started its first FP (1984-1987), the budget was rather low (EUR 3.3 billion) (see also milestones on EU research, EU: 2015: 6). The latest eighth FP has a budget of EUR 80 billion, a multiple of the first programme. In addition to this dramatic increase in budget, the FPs have increasingly incorporated research on climate policy concerns.

Table 11. Changes in the research focus of EU framework programmes in 1995-2020 compared with the first framework programme of 1984-1987

Framework programme (FP)	Budget (€)	Focus
FP1 (1984-1987)	3.3 billion	Aim of research: making industry more competitive Basic research on industrial technologies and advanced materials
FP5 (1995-2001)	14.9 billion	Aim of research: foster an innovative Europe Build a more efficient research infrastructure, increasing focus on energy research (€1 billion)
FP6 (2002-2006)	19.3 billion	New procedural elements of the FP created, bringing together industry, public authorities and technology users, with an emphasis on emerging but disruptive technologies
FP7 (2007-2013)	55.9 billion	'Environment, including climate change' is one of the 10 proposed themes; it is primarily designed to support and coordinate cooperation in environmental and climate change research (EC 2014)
FP8 (2014-2020)	80 billion	Clean and efficient energy (€6 billion) Creation of an ad hoc expert group, providing a Roadmap for Climate Services (2015)

Sources: EU 2015, EC 2014.

Currently in the eighth cycle, the framework programmes are considered 'the most important tool' to implement the European Research Area (EU 2015: 25).

The EU has developed a strong competence in building a solid knowledge base, as reflected in the EU's Joint Research Centre, knowledge and foresight units, the European Research Area and data provision through the European Environmental Agency.

The JRC is the European Commission's independent in-house science and knowledge research service. The JRC was established as a DG independent of the DG for Research in 1996 (EC 2007). Member States are involved in the JRC through its board of governors. Knowledge and foresight units related to climate change play a role in determining future trends and engaging in anticipatory policy planning. Foresight and horizon scanning are important elements of the JRC and reflected in the European Foresight Platform (2009-2012), the former Forward Visions on the European Research Area (VERA Project) (2012-2015), or the most recent MIDAS consortium (Meaningful Integration of Data, Analytics and Services). The MIDAS partnership brings together different authorities from EU countries, scientists, participants from industry, legal experts and NGOs. As part of these initiatives, the EU has been growing particular capacity in integrated data analysis and partnerships for data collaboration.

Additionally, the European Research Area was launched in 2000 to bring together the jigsaw of different European research efforts through improved coordination. It was included in Article 179 of the Treaty of Lisbon in 2007 with the intention 'to help the EU to strengthen its scientific and technological bases' and become 'a single market' for research and researchers (EU 2015: 25). From an EU perspective, increasing research cooperation and coordination through centralised platforms is an important element that has led to a greater convergence of objectives within the EU (EU 2015). The coordination of national research and disburdening of the Member States by pooling resources are key beneficial aspects outlined in the function of the European Research Area (EU 2015). The growth of the knowledge sector is seen as essential and overlaps with the legal expertise of the EU.

Knowledge competence has also been fostered through the EEA, which is a non-regulatory information-gathering agency that was born as part of an effort to develop an own Environmental Protection Agency in 1990 and began operations in 1993 (see also Moy 1994, Martens 2010, Bosch 2002). All 27 EU countries are members of the EEA in addition to Iceland, Liechtenstein, Norway, Switzerland, the UK, Turkey and the cooperating countries of Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. The latter countries are primarily candidate countries that are currently in the process of integrating EU legislation into national law.

In earlier years, the EEA focused on building a European information and observation network, to enable the European Community and its Member States to gather and access objective, independent and reliable data for environmental protection measures (see Ladeur 1996, Moy 1994). The EEA is equipped with a mandate to help the Community and member countries make informed decisions on questions related to the environment, sustainability and climate change. Thus, monitoring through environmental impact assessments became a core task of

the EEA. Aside from its cooperation with member countries, the EEA produces environment-related information and knowledge for intra-EU institutions such as the European Parliament in the form of briefings and upon request attending environment-related hearings for the Council and for the European Commission. Here, the EEA contributes to DG ENV, DG CLIMA and also collaborates with the DG for Research and Innovation, the Joint Research Centre and Eurostat (EEA 2020).

Throughout the years, the role has adjusted slightly with a greater focus on assessments of the EU's progress in the context of sustainable development and tailoring the assessments to specific policy contexts (Bosch 2002). The EEA has gradually transformed from a legal advisory body of the Commission into a living entity, which has grown increasingly autonomous within the EU (Martens 2010). Although the EEA was created to improve the EU's capacity for monitoring and enforcement (Rechtschaffen 2007) and has been described as an agent of EU governance and learning that distinctively influences EU policy performance (Zito 2009), it continues to have only limited power (Rechtschaffen 2007).

3.2.2 Current status: Authority continually increases but lacks arrangements for public involvement

In terms of its formal autonomy, the EU has managed to continually increase its financial, institutional and knowledge resources related to climate change. The EU has, however, been criticised regarding its lack of structure for public involvement, stakeholder engagement and deliberative citizen participation. As per Articles 10 and 11 of the Governance Regulation, Member States are required to involve stakeholders such as local and regional authorities, civil society organisations and the broader public in two ways. Yet, access has been tricky, with a greater need for structural reform.

The participation of civil society has not just been an area of keen interest for EU researchers and political decision-makers more broadly (e.g. Heidbreder 2012, EC SWD 2017) but also a necessity for advancing new governance arrangements for policy innovation, which has been emphasised especially in the field of EU climate policymaking (e.g. Şekercioğlu 2018.). Within political practice, this topic has also been growing in importance, with the European Economic and Social Committee putting forth several studies on EU Member State consultation with civil society on matters and the future evolution of civil society in the European Union by 2030 (Chabanet and Trechsel 2011, Divjak and Forbici 2018).

Compared with the growing competence on climate policy among EU institutions, climate mainstreaming in the EU's budget, and solid knowledge base, the EU's capacity for monitoring and compliance has been relatively weak. Once new legislative measures are passed at the EU level, each Member State is responsible for implementation, which is shaped by a combination of political will and ability (Vandeever 2015). Although the EEA has the potential to play a stronger role in policy implementation through policy monitoring, it has become clear that Member States only have limited willingness to be evaluated by the EEA. The EEA currently compiles monitoring data from the Member States and submits them to the European Commission (Schoenefeld et al. 2018).

3.2.2.1 Budget

Because of the Covid-19 situation, the Commission, at the request of the European Parliament and of the Council in revising its MFF, proposed a larger EU budget ('[a]n emergency Next Generation EU instrument') of EUR 750 billion. The main aim is to address the immediate economic and social effects and to foster sustainable and resilient growth. The proposal was published in May 2020 and is closely interlinked with the broader goals of the Commission's Green Deal. A large part of the proposed budget, in the form of the Recovery and Resilience Facility (EUR 560 billion), is targeted at supporting Member States' investment and recovery in line with the green transition, national energy and climate plans, and Just Transitions plans[30]. In total, a quarter of the proposed Covid-19 recovery fund is intended for climate action. The budget was granted through the Council, further cementing climate policy-related efforts and green recovery efforts as the only option: 'EU expenditure should be consistent with Paris Agreement objectives and the "do no harm" principle of the European Green Deal' (EUCO 10/20).

In this context, a European tax has been proposed (e.g. Le Cacheux 2018) and been reflected in the budget proposal of the most recent cycle of the European Commission and tax-based own resources backed by the European Parliament (Krenek and Schratzenstaller 2019). This is expected to be strengthened through an EU climate law.

Table 12. Overview of climate mainstreaming scenarios for the next EU budget across policy sectors

Climate mainstreaming scenarios MFF 2021-2027 - July 2018

(EUR million - curent prices)	programme amount	variable targets to achieve 30%		variable targets to achieve 40%		Comparison with climate spending 2014-2020	EC proposal			
							%	amount	share in total climate action	legal base
Horizon Europe	94.100	32.935	35%	47.050	50%	20.9% (35% target Horizon 2020)	35%	32.935	10.3%	aspiration
ITER (International Thermonuclear Experimental Reactor)	6.070	6.070	100%				100%	6.070	1.9%	EC estimate
InvestEU Fund	14.725	4.418	30%	8.835	60%	40% (infrastructure window)	30%	4.418	1.4%	aspiration (with 50% target for infrastructure window)
Connecting Europe Facility - Transport	12.830	17.136	70%	10.264	80%	50.1%	60%	14.688	4.6%	aspiration
Connecting Europe Facility - Energy	8.650			8.650	100%					
Connecting Europe Facility - Digital	3.000			600	20%					
European Regional Development Fund	226.308	113.154	50%	158.416	70%	19.3%	30%	67.892	21.3%	thematic concentration
Cohesion Fund	46.692	25.681	55%	28.015	60%	24.1%	37%	17.276	5.4%	EC estimate
European Agricultural Guarantee Fund (EAGF)	286.195	114.478	40%	114.478	40%	15.2%	40%	146.002	45.7%	aspiration (with 30% for RD)
European Agricultural Fund for Rural Development (EAFRD)	78.811	39.406	50%	63.049	80%	59.9%				
European Maritime and Fisheries Fund	6.140	2.456	40%	2.456	40%	15.9%	30%	1.842	0.6%	aspiration
Programme for Environment and Climate Action (LIFE)	5.450	3.325	61%	3.270	60%	47.1%	61%	3.325	1.0%	aspiration
Neighbourhood, Development, Int. Cooperation Instrument	89.500	22.375	25%	35.800	40%	18.0%	25%	22.375	7.0%	aspiration
Pre-Accession Assistance	14.500	2.320	16%	5.800	40%	14.0%	16%	2.320	0.7%	aspiration
Climate action 25%:	319.852	383.752	30%	486.683	40%	18,90%	24.9%	319.143	100.0%	

Source: CAN Europe.

The EU's long-term budget for the next cycle under the multiannual financial framework (2021-2027) is of particular importance, as it assumes a critical role as a policy instrument due to being regarded as the last budget cycle to change course to reach the 2030 targets, support

[30] European Commission, 'Questions and Answers on the MFF and Next Generation EU', 27 May 2020, last accessed 5 November 2020 via: https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_935

the EU's long-term agenda of decarbonisation by 2050 and improve the EU's overall climate performance (Runkel et al. 2019). Although the European Commission proposed an increase from 20 to 25 % for the budget to foster climate mainstreaming across all EU programmes (see Table 12), CAN Europe argues its full potential to catalyse the clean energy transformation is untapped, due to competing priorities, incoherent implementation, and the continued support of fossil fuels (CAN Europe 2020).

3.2.2.2 Monitoring

Regarding the procedural aspects such as monitoring capacities, the EU still depends on the goodwill of Member States to engage in reporting but has gradually adjusted its soft governance practices to include harder mechanisms for climate policy monitoring in light of the Paris Agreement and reaching an Energy Union (Schoenefeld and Jordan 2020). This includes greater legal provisions, more external publicity and more concrete links to other policy processes (ibid.).

3.3 COHESION

Within the debates on EU actorness in climate policy, cohesion and coherence have played a particularly important role (e.g. see Groenleer and Van Schaik 2007, Heidener 2011, Groen and Niemann 2012). As part of the debate, different types of cohesion have been discussed, such as preference cohesion, procedural-tactical cohesion and output cohesion (see Groen and Niemann 2012). This report takes note of these differentiated assessments of EU cohesion in climate policy but for now adopts a simplistic view that focuses on two levels of cohesion in terms of the constellation of interests of EU Member States and internal EU bodies (Parliament, Commission, Council). Cohesion is understood as a way of doing things together, which suggests there is some form of congruence with a basic EU order.

Intra-EU cohesion has been a long-debated issue as part of EU expansion, especially when it comes to the process of enlargement to eastern and southern Europe. Aside from Brexit, EU enlargement has widened the EU's internal diversity and heterogeneity of interests, which can complicate decision-making on climate policy. Regional disparities in terms of economic development, political liberalisation, national-state sovereignty demands, country-specific expectations and cooperation dynamics are inbuilt characteristics of a heterogeneous Europe that need to be considered when reflecting upon intra-EU cohesion in specific policy arenas. It is against the background of distributed responsibilities as well as context-specific interests of Member States and different obligations of intra-EU bodies that EU cohesion must be looked at.

At the same time, the hegemony of certain countries within the EU, such as Germany and France, is controversially discussed as part of discourses on EU integration (Schöneberger 2012, Link 2012), but also within climate policy-related reflections (Benson and Jordan 2010, Schild 2020). In this context, climate policy has been referred to as a driver and saviour of EU integration (e.g. see Oberthür and Kelly 2008, Van Schaik 2010, Lessenski 2017). A joint European vision of climate governance may not only enhance Europeanisation of the policy area but also foster internal cohesion (see also Oberthür and Kelly 2008). We hypothesise that

this dimension is one of the strongest determinants of EU actorness and significantly impacts all other dimensions. Further, we hypothesise that cohesion significantly correlates with policy effectiveness, e.g. high levels of EU cohesion are likely to lead to greater policy effectiveness. Examining the degree to which cohesion and effectiveness correlate is an area of further research.

Table 13. Cohesion assessment

Phase	Assessment (low to high)	Comment
Post-Kyoto 1997	Moderate	No coherent strategy regarding climate change existed before the climate summit, but principles upon which a strategy could be built were articulated. The EU appears as a largely unified actor during the Kyoto process although several internal differences persist. Cohesion is institutionalised in the burden-sharing agreement (1998) but Member States refuse to transfer more competence to the EU level as part of the negotiation process.
Copenhagen 2009	Low to moderate	Limited cohesion by EU Member States in terms of preferences and a high degree of politicisation constrain the EU's ability to negotiate and attain common goals; no common negotiation position exists. Post-Copenhagen: Poland vetoes EU climate policy in 2012. But there is relatively high intra-EU cohesion between the Commission and the European Parliament.
Paris 2015	Moderate to high	During Paris: there is a coherent and harmonised EU position during the negotiations, reflecting strength in EU Member State alignment in building actor alliances, in intra-EU cohesion, in European Parliament support and a workable division of labour.
Glasgow 2020-2021	Moderate	The opposition of and different priorities held by the Visegrád Group continue. Poland and Hungary both block efforts to strengthen the 2030 target. Poland refuses to sign up to the EU's 2050 target and reluctance by other eastern countries persists. Hungary and Poland refuse to sign up to the EU budget target, which could impact climate policy. The free riding behaviour of some Member States threatens EU cohesion on climate policy.
The cohesion of the EU is signified by **moderate actorness,** based on a mixed alignment of EU Member States within the negotiations and across different political issues related to the contribution of emission reductions, increased ambition by the Commission, the EU climate law as well as the Energy Union. There continues to be considerable friction and different priorities held by the Visegrád Group, which led to a decline of EU cohesion from Paris to Glasgow. This decline also goes hand in hand with the rise of populist movements.		

3.3.1 Changes over time: The precarious nature of EU cohesion

3.3.1.1 Kyoto: The EU as a united bloc but with differences among Member States

When it comes to cohesion, striking differences can be observed over time especially when looking at how the EU performed in key negotiations. The EU appeared as a largely united bloc during the Kyoto summit, which has been argued as a condition for convincing other countries to join the Protocol despite US opposition (e.g. Groenleer and Van Schaik 2007). However, during Kyoto, internal differences between Member States existed, with southern countries – Portugal, Spain and Greece – not being very enthusiastic about limiting GHG emissions (Oberthür and Ott 1999). The burden-sharing agreement gave some Member States (Spain, Portugal, Ireland and Greece) a lighter burden regarding their emission reductions and was fundamental for EU cohesion among Member States. The US withdrawal from the Kyoto Protocol apparently also reinvigorated EU unity under the Kyoto regime (which also marks a significant interrelation between the external structure and dimension for opportunity).

Prior to Kyoto, the EU had held a climate policy workshop called 'Towards a European Consensus' in September 1996 (Harris 2007: 98). Although the European Commission had requested that it be endowed with negotiating authority, that was not granted during Kyoto; nevertheless, the EU managed to build intra-EU cohesion and fill the vacuum the US had left. This external condition, the withdrawal of the US from the Kyoto Protocol, has been argued to have led to strengthened EU unity (Oberthür and Kelly 2008).

3.3.1.2 Copenhagen: Strong divisions in cohesion

Conversely, although there appeared to be considerable agreement on the EU's normative aspirations regarding its pursuit of an ambitious climate policy during the Copenhagen summit on the part of some EU institutions (Parliament and Commission), significant disagreement persisted on the preferences of Member States until the end of the Copenhagen negotiations (Groen and Niemann 2011). A memo published by the European Commission shortly before COP15 points to the frictions in the global governance landscape and a rather vaguely formulated EU goal:

> Given the slow progress made in the negotiations to date, and a lack of consensus about the shape of the eventual agreement, it is now unlikely that the treaty can be finalised in Copenhagen as originally planned. The EU's goal at the conference is therefore to make as much progress as possible towards a full treaty and to reach an ambitious and comprehensive political agreement covering all its key elements as well as a 'fast start' deal. (EC 2009)

Like Kyoto, the EU wanted the final agreement of Copenhagen to be a comprehensive and legally binding treaty. Aside from the different constellations and interests of global governance actors such as the US or the newly institutionalising BASIC countries (Brazil, South Africa, India and China), the preferences of EU Member States were so diverse that a common negotiating position could de facto not be detected (Groen and Niemann 2012a). During COP15, the EU was represented by the Swedish EU Council presidency and two EU negotiation teams 'consisting of lead negotiators and issue leaders from both the EU Member States and the European Commission, at the negotiator level, and by the Swedish EU Council presidency and the EU troika' (Groen and Niemann 2012b: 317). Like in Kyoto, Member States retained

the competence to negotiate, letting the Council presidency present the EU position rather than the Commission, yet the increased role of the troika implied that the EU had enhanced its informal authority for external representation (Kelly and Oberthür 2008, Heidener 2011). The low degree of flexibility in the mandate and unanimity requirement nonetheless constrained the EU (Groen and Niemann 2012a).

The divided nature of EU positions manifested in the EU's commitment to a CO_2-emission reduction goal of 30 % compared with 1990 levels by 2020, the EU's position on LULUCF and the financial contributions for developing countries (ibid.). Although the EU was initially presented as a leader in the negotiation process, this external perception shifted markedly due to the disunity among EU Member States.

3.3.1.3 Paris: EU reunited?

For the COP21 Paris summit, a coherent and harmonised EU position was developed and maintained during the negotiations. EU institutions and Member States were closely aligned to build actor alliances, and effective intra-EU cohesion prevailed. The support of the European Parliament was strong and a workable division of labour between EU institutions and EU Member States was found. However, there was still a lack of agreement among Member States on the increase of ambition, with 10 Member States refusing to make concrete concessions on a more ambitious agenda. Against this backdrop, EU cohesion on internal and external climate policy continued to be precarious yet an important driver of changes in global climate governance. In this context, the reunited EU is often discussed in terms of the recovery of EU leadership and credibility.

3.3.2 Current status: Continued opposition by the Visegrád Group

EU cohesion on internal and external climate policy continues to be precarious yet an important driver of changes in global climate governance. In the lead-up to Glasgow, a joint statement (2019) was signed by Belgium, Denmark, France, Luxembourg, the Netherlands, Portugal, Spain, and Sweden and a proposal submitted to spend 25 % of the EU budget on climate change. This was initially met by opposition from the Visegrád Group of Czechia, Hungary, Poland, and Slovakia. The continued opposition is signified by different priorities, with Poland and Hungary both blocking the strengthening of the 2030 target, and Poland refusing to sign up to the EU's 2050 target. The reluctance of other eastern countries persists, with Hungary and Poland both refusing to sign up to the EU budget target, which could impact climate policy. This free-riding behaviour of selected Member States threatens EU cohesion on climate policy.

Although Commission President Ursula von der Leyen has focused her mandate on six headline issues, among which the European Green Deal has become the dominant narrative[31], the EU

[31] Aside from the European Green Deal the other headline issues are a Europe fit for the digital age, an economy that works for people, a stronger Europe in the world, promoting our European way of life and a new push for European democracy; European Commission, the Commissioners, Ursula Von der Leyen, last accessed 5 November 2020 via https://ec.europa.eu/commission/commissioners/2019-2024/president_en

has been confronted with limitations in building a system of shared norms, and as a result is weaker regarding its strategic autonomy.

3.3.2.1 Intra-EU organisations: The changing role of the Secretariat General

Institutions for coordination are important for convening different bodies and steering internal decision-making related to climate change. Institutional arrangements for policy coordination are critical for climate policy, especially since it is a cross-cutting issue. Amid the sectoral responsibilities of the DGs, the changing role of the Secretariat General for internal coordination in the Commission has been gaining traction recently. The Secretariat General has long been viewed as a weak actor in steering internal decision-making, but its political authority, bureaucratic role and relevance have been changing towards providing a home for the coordination of EU environmental policy (Damro et al. 2008, Hustedt and Seyfried 2017).

The consensual adoption of ideas of Member States and arrival at a common position rely on mediation capacity. The EU and its ability to convene participative discourse as well as regular meetings of the Member States and representatives of the Commission are regarded as key for coordinating Member States' efforts. Furthermore, intra-EU bodies working on climate policy are crucial for the EU's autonomy. While coordinating different actors within the EU, among the DGs and the Member States is crucial, there has been criticism about the lack of specifying the interrelationship of relevant legislation and policy, but this is considered important to facilitate the coordination of national policies and foster regional cooperation within the EU (Meyer-Ohlendorf et al. 2015).

3.3.2.2 The changing role of the European Parliament: Evolving leadership?

The European Parliament is an interesting example of how the (lack of) cohesion between EU Member States and intra-EU institutions interrelate. Within the EU, the European Parliament can be considered an intra-organisational ratcheting-up mechanism, with the European Parliament often amending, consolidating and strengthening EU standards on the international stage (Burns et al. 2012).

3.4 RECOGNITION

There is a long-standing debate about whether the EU can be considered a leader in international climate politics, which determinants constitute good leadership and whether the EU's self-perception matches that of external actors (e.g. see Parker 2012, Bäckstrand and Elgström 2012, Parker et al. 2017). Recognition is one important condition of being an actor, yet the relationship between actorness and leadership will only be touched upon in the following analysis.

This dimension captures formal aspects, such as the EU's regulatory recognition or formal negotiation power, as illustrated in its formal legal status as a party to agreements, conventions and its representation within multilateral organisations. This dimension partially reflects international recognition of the EU in the area of climate policy through the main global governance actors – dominant national actors (e.g. Australia, China, India and the US) and non-

state actors (NGOs and the private sector), as well as multilateral organisations (e.g. WTO, ASEAN and UNFCCC).

The first part of the analysis is based on a quantitative examination of media articles by looking at how often the EU is mentioned in them compared with other actors. This set of quantitative data only offers incidental insights from English-based media sources and how the EU scores relative to other entities such as the G7 and BRICS (Brazil, Russia, India, China and South Africa). Yet an analysis of statements and speeches has valuable insights to offer on how foreign leaders or representatives of international organisations refer to the EU and whether the EU is recognised as a (legitimate) negotiation partner by other actors in the international system. It is complemented by a qualitative assessment.

The second part looks at how the EU is mentioned in joint strategy documents and policy initiatives, speeches and public statements by the above-mentioned actor groups. The analysis is complemented by scientific assessments.

Table 14. Recognition assessment

Phase	Assessment (low to high)	Comment
Kyoto 1997	Low to moderate	Notable ambivalence: on the one hand, the EU position in the negotiations is debated as an important factor that shaped the outcome of the Kyoto Protocol (a Western perception), especially by other industrialised countries. On the other hand, the EU is seen to have had comparatively limited impact on the architecture of the Kyoto Protocol, while emerging and developing countries perceive the EU as a killer of the Protocol.
Copenhagen 2009	Low	Perceived as unsuccessful in achieving its aims in the negotiations (strong international agreement with binding targets, timetable and robust enforcement mechanisms), the EU is often 'not in the room'. Other leaders (the US, Brazil, South Africa, India, and China) are perceived to have decisively shaped the final outcome. NGOs are severely disappointed by EU efforts. Internal divisions between the EU and its Member States lead other negotiating parties to be confused about the EU's role, as its position and negotiation power are sidelined by its own Member States.
Paris 2015	Moderate to high	A unified negotiation position is viewed positively by global governance actors, with the EU is perceived as responsible for building a 'high-ambition coalition'. Post-Copenhagen participation in the Cartagena Group/Dialogue for Progressive Action is an important precondition. The EU is viewed as speaking with one voice and a strong French COP presidency adds to the recognition of the EU as a strong actor. Improved transparency and the EU's efforts to welcome the engagement of non-state actors and involve civil society groups adds to the EU being recognised very positively.

Glasgow 2020-2021	Moderate to high	When it comes to climate diplomacy, there is strong recognition of the EU (and China) staying on board. The European Parliament is viewed as an important intra-EU actor for increasing ambition, but think tanks and NGOs point out that ambition is not enough and the budget is not in line with the carbon deficit and historical responsibilities. Recognition is likely to hinge on how Member States agree on sharing the proposed emissions target post-June 2021. Contested issues related to recognition include the EU's common agricultural policy, the Just Transitions Fund and the slow energy transition efforts in some Member States.
Overall, the EU has moderate to high actorness when it comes to external recognition of the EU by other global governance actors. Recognition was mixed regarding the EU's efforts during Kyoto, with developing and emerging countries even perceiving the EU as a 'killer of the Kyoto Protocol' and the EU only having limited impact in shaping the architecture of the Protocol. Recognition was low during Copenhagen, based on the lack of a common negotiation position and internal frictions. In contrast, the EU was recognised as a strong actor during Paris based on its role in building a high-ambition coalition and presenting a unified negotiation position. The EU's continued engagement, together with China (and in light of an absent and only recently returning US), has been recognised positively. Yet, the outcome for Glasgow for this dimension hinges upon how Member States agree on sharing the proposed emissions target.		

3.4.1 Changes over time: Significant dips but increasing recognition as an actor

Since the negotiations began, the EU and its Member States have been Annex I parties to the UNFCCC, which was established in 1992. The formal legal recognition of the EU is reflected in this membership, in addition to the individual membership of EU countries. In this capacity, the EU is granted a negotiation mandate, which implies that the EU submits a climate action plan and/or related policy framework as part of their nationally determined contributions. The EU's NDC can be understood as a headline target that corresponds with domestic targets regulated by the effort sharing mechanism.

The EU has also been contributing to global climate negotiations by establishing common COP negotiation positions among its Member States, by proposing EU internal policy targets such as emission cuts, and by negotiating with different actors and networks in front of and behind the scenes. Over the years, the EU has been increasingly recognised as a unique actor in the global climate negotiations, with considerable leadership improvement and a core function as an 'international agenda setter' (e.g. Damro 2006, Oberthür and Kelly 2008, Schreurs and Tiberghien 2007). Other views examine the paradoxical features of EU climate policy – such as the 'lopsided nature of policy development' and strong emphasis on mitigation as opposed to adaptation, the lack of a coordinated position within EU institutions and tension between aspirational targets, high policy ambition and constrained policy instruments and implementation mechanisms (e.g. Jordan et al. 2012). These views concentrate on aspects related to the actual implementation and impact of EU climate policy, which will not be covered in this report. The following analysis concentrates on functional and soft power, such

as strategies of persuasion and coalition building, and externally perceived recognition of the EU through external actors' eyes.

In addition to NDCs, and as required under the Kyoto Protocol, the EU, like its Member States, submits national communications to the UNFCCC, which outline information on national circumstances relevant to GHG emissions and removals, GHG inventory information, policies and measures as well as projections[32]. National communications are central to reporting in climate policy strategies and offer some insights on policy convergence between the EU and its Member States (Albrecht and Arts 2005). EU Member States delegate sovereignty for certain matters to EU institutions, while each national government is represented in the Council and European Parliament.

3.4.1.1 Post-Kyoto: The EU as a killer of the Kyoto Protocol

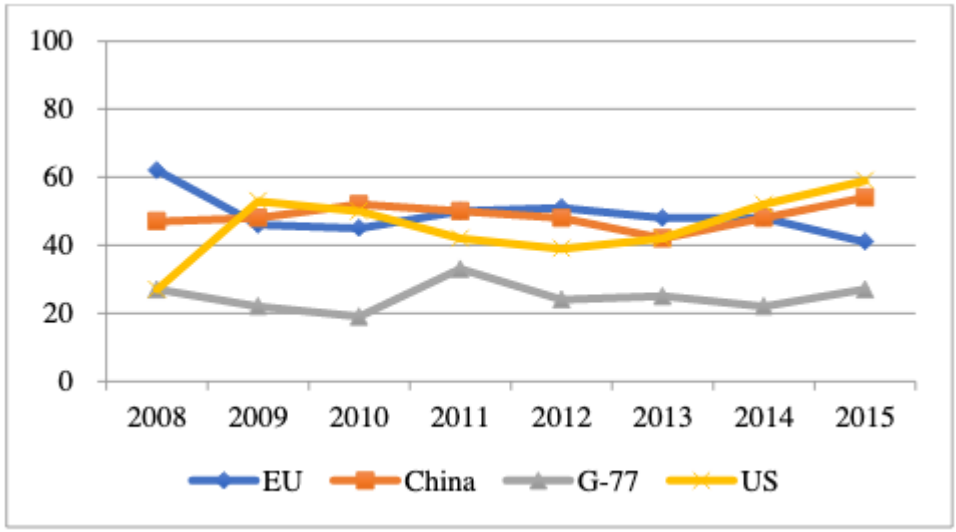
Within academic debates, the role of the EU in the Kyoto Protocol is intensely debated, but there is some consensus on the limited ability of the EU to shape the international process and architecture of the Kyoto Protocol (e.g. Oberthür and Kelly 2008, Torney 2013). Developing or emerging countries like China and India even viewed the EU's negotiating position during Kyoto as an attempt to 'kill' the Kyoto Protocol, based on the EU's preference for a single legal instrument in contradiction to the common but differentiated responsibilities principle and on Annex I parties having to take the lead in meeting the obligations under the Kyoto Protocol (see also Torney 2013: 15 ff.). The EU is nevertheless perceived as having played a vital role in securing the agreement and being instrumental in the Protocol's entry into force (see also Damro 2006) under a soft leadership strategy signified by soft power resources (Oberthür and Kelly 2008). Accordingly, the EU was able to develop a flexible system of EU coordination and representation as early as 1980, which enabled the EU to speak with one voice and develop negotiating positions (ibid.).

3.4.1.2 Copenhagen: A mixed picture, with a failure of EU diplomacy and coherence, but high ambition

As regards Copenhagen, the EU was perceived as unsuccessful in achieving its aims in the negotiations (of a strong international agreement with binding targets, timetable and robust enforcement mechanisms). Internal divisions between the EU and its Member States led other negotiating parties to be confused about the EU's role, as its position and negotiation power was sidelined by its own Member States. Copenhagen is considered a particularly low point for EU climate diplomacy. The EU maintained its negotiating position regarding a top-down legal agreement but often did not speak with a unified voice. Prior to Copenhagen, the EU had been viewed as a protagonist in relation to the US by other global governance actors (Vogler and Bretherton 2006). Post-Copenhagen, the leadership of the EU was openly questioned (e.g. Wurzel et al. 2017), with some even postulating the end of EU climate leadership (e.g. Bals et al. 2013). Compared with other actors such as China and the US, recognition of the EU's leadership took a serious dip (see Figure 7).

[32] See the seventh communication of the European Union to the UNFCCC, last accessed 4 November 2020, via https://unfccc.int/documents/198246

Figure 7. Recognition of leadership in global governance of climate change



Source: Liu and Wu 2017 based upon Parker et al. 2017.

3.4.1.3 Paris: The EU perceived as instrumental in reaching the Paris Agreement

The situation improved significantly in Paris, with the EU's unified negotiation position viewed positively by global governance actors. The EU was subsequently seen as speaking with one voice. This marks a strong overlap between the external recognition and internal cohesion dimensions. Since then, and also in view of the Glasgow COP26, the EU is highly recognised in the context of climate diplomacy, in particular by other actors such as China. Still, civil society organisations point out that the EU's ambition is not enough, that its budget is not in line with the carbon deficit and that the EU also has historical responsibilities which developing and emerging countries do not have.

Overall, Paris has been deemed a great success for EU diplomacy (Parker et al. 2015) and 'far away from Copenhagen's blow to the EU's self-image as a global leader' (ibid.). The underlying theme of the external perception of the EU has been in line with a statement by then Commissioner for Climate Action and Energy Miguel Arias Cañete, who emphasised the instrumental role the EU played in reaching the Paris Agreement:

> In Europe, and working united as Europeans, we have reached a balanced deal on the rules to turn the Paris Agreement into action. The EU played an instrumental role in reaching this outcome, working with allies from both developed and developing countries and with major economies, in particular China, to raise ambition and strengthen global efforts to fight climate change. (EC 2018)

The discussion and data on leadership recognition is huge in this context, often equating 'being recognised as an actor' with 'being a leader' or at least qualifying as a leader in global governance (e.g. see Oberthür and Dupont 2021, Oberthür and Groen 2017). Aside from the difficulty of differentiating an actor from leadership and from the leadership aspirations of an actor, multilateral settings are said to provide an especially difficult context for achieving universal leadership, as there may be more than one leader (Parker et al. 2017). Apart from

playing an important functional role, EU officials have been keen to construct the EU as a climate leader. This was illustrated by a statement from Jean-Claude Juncker, who said:

> Take the Paris agreement. We Europeans are the world leaders on climate action. It was Europe that brokered the first-ever legally binding, global climate deal. It was Europe that built the coalition of ambition that made agreement in Paris possible.

However, the EU's self-conception as a climate leader has come under question. A recent survey examined to what extent the EU is actually recognised as a leader in comparison with other leadership candidates, such as China, the G77 or the US. According to survey data spanning from Copenhagen (COP14) to Paris (COP21) between 2008 and 2015, the trend in EU leadership recognition was negative in contrast to China and the US (see Table 15). The EU's high regard for itself as a leader is different from the perception of other actors. This phenomenon has been described as an instance of a fragmented leadership landscape – one in which the EU must adjust its strategies to exert its influence in relation to other powerful actors like China and the US (Parker et al. 2017).

Table 15. Leadership recognition during 2008-2015, general trend for main actors (percentages)

	COP 14	COP 15	COP 16	COP 17	COP 18	COP 19	COP 20	COP 21	Trend
	2008	2009	2010	2011	2012	2013	2014	2015	2008–2015
EU as leader	62	46	45	50	51	48	48	41	−21
China as leader	47	48	52	50	48	42	48	54	+7
G-77 as leader	27	22	19	33	24	25	22	27	±0
US as leader	27	53	50	42	39	42	52	59	+32

Note: Total number of respondents = 3557.

Source: Parker et al. 2017: 256.

3.4.2 Current status: Recognition hinging on Member States' cohesion

The recognition of the EU at COP26 is likely to hinge on how Member States agree on sharing the proposed emissions target post-June 2021, and on how the EU handles key dossiers such as the common agricultural policy and the Just Transition Fund. After the US exit from the Paris Agreement came into effect in November 2020, the EU and China were considered to play especially important roles in global climate policy, as manifested in their bilateral agreement. The tide has turned since the US has rejoined the Paris Agreement under the Biden Administration, and the US is seeking to reassert its leadership in global governance in this domain. These developments have not just affected the external opportunity structure of the EU (see also Section 3.6) but likewise how the EU is perceived on the global stage.

3.4.2.1 Approximating recognition through analysis of media perception

Along with formal recognition, we analysed recognition in broader terms by considering international media mentions of the EU as a proxy for recognition. Media mentions do shape public awareness of actors and are therefore more likely to contribute to the perception of someone (or some entity) as an actor. Yet, this does not imply any normative connotation – for instance, whether an actor is good or effective. We analysed recognition by counting how often an actor is mentioned compared with other countries, be it positively or negatively.

As part of a media scraping exercise, a dataset of 17 887 news articles from 69 international media from the 12 BRICS and G7 countries was compiled for the years 2010 to 2020. The table below ranks media mentions of all G7+BRICS countries and the EU. It includes both English and non-English media sources. The dataset does not include other relevant COP parties, such as small island states, and therefore has a data limitation[33]. Out of the dataset, 5 111 media articles on climate policy could be detected.

The EU is prominently featured in international media articles on climate policy. In these media articles, the EU represents a weighted 1.8 % share of the mentions of all entities. Compared with the G7 and BRICS countries, the EU is the third most mentioned actor. Yet, what also stands out is the US – despite the political developments under the Trump Administration and its exit from the Paris Agreement. The period covered is only after the Copenhagen summit.

The score in the rightmost column shows the percentages on a scale from 2 to 5 for the deep dive scoring. Note that the scale starts at 2 and not 1, because even the least mentioned country is still mentioned much more often than many other actors present in the dataset, but which are not in the table.

Table 16. Counting key actors in articles related to climate policy

Climate change				
Rank	**Actors**	**Share of mentions (weighted)**	**Total count of mentions**	**Share of mentions (scaled)**
1	US*	5.7 %	6 183	5
2	China*	1.9 %	2 084	2.9
3	**EU***	**1.8 %**	**1 108**	**2.9**
4	France*	1.6 %	1 719	2.8
5	UK*	1.0 %	1 047	2.5
6	India*	0.9 %	968	2.4
7	Germany*	0.8 %	763	2.3
8	Russia*	0.6 %	673	2.2
9	Canada*	0.4 %	447	2.1
10	Japan*	0.4 %	359	2.1
11	Brazil*	0.3 %	325	2.1
12	Italy*	0.2 %	268	2
13	South Africa*	0.2 %	170	2

Source: Authors' elaboration.

[33] For a more detailed description of the underlying data set, methodology and limitations, see chapter 2.4.2 of the SDG Deep Dive and the methodological annex.

3.5 ATTRACTIVENESS

Under which conditions is it attractive for other countries to join forces with the EU in international climate politics? This question first entails a comparative perspective: is it more attractive to cooperate with the EU as compared with other countries or regions? Second, it includes the question of the source of motivation to cooperate: is this because of shared norms and values? Or because of economic considerations?

This dimension is closely related to the recognition dimension as it concerns how global governance actors view the EU. The attractiveness dimension goes a step further and involves analysis of the functional recognition of EU actorness, aspects of conditionality and instrumental attractiveness, i.e. what is the gain from following the EU's lead? Is it attractive to align with the EU compared with other countries to pursue interests (in political or economic terms)? Attractiveness has an implicit normative connotation in the sense that the way the EU does something has a desirable character and as a consequence should be followed. It refers to the EU in terms of setting the 'rules of the game' whether in economic or political terms. Accordingly, this dimension entails the attractiveness of the EU in economic terms and how the EU shapes the rules of other markets. It also includes the EU's political attractiveness in terms of partnerships, i.e. being an attractive discussion partner, but also considering the emulation of policy and knowledge. This dimension has a strong relational component in terms of the inclination of other entities to copy, e.g. knowledge, policy instruments and technologies, as well as rules. This study has only limited capacity to examine the extent to which other countries have actually emulated certain EU efforts, but offers insights as to whether the EU has motivated other actors in the global governance landscape to follow its lead. In addition to its strong interrelation with recognition, the perception of EU cohesion has a direct impact on how other entities view EU attractiveness.

Table 17. Attractiveness assessment

Phase	Assessment (low to high)	Comment
Kyoto 1997	Low to moderate	Political: the EU has been attractive in terms of setting rules for ETS-based markets (China) and attractive as a discussion partner as illustrated by increased partnerships with China, Japan, and the US early on. Economic: regulations on access to European markets were not related to climate issues. JI and CDM provided incentives for developing countries and emerging economies to become engaged in climate policies.
Copenhagen 2009	Moderate	Political: the EU fails to follow through with its interests and a dominant BASIC bloc forms (the US, Brazil, South Africa, India and China) and the attractiveness of cooperating with the US, China and emerging economies is higher than strengthening cooperation with the EU. Yet the EU manages to stay attractive as a coalition partner. There is policy emulation of the EU ETS rules / global carbon trading systems.

		Economic: market barriers are introduced, e.g. CO_2 limit values for cars and the Ecodesign Directive for energy-using products.
Paris 2015	Moderate/low	Political: the EU is an important partner of high-emitting countries and policy emulation further increases. The market stability reserve system is adopted but the rules are considered too complex. Economic: The GCF is introduced. There is ongoing discussion of the extension of the CDM and JI. A tightening and extension of product standards occurs in relation to the climate (cars, implementation of the Ecodesign Directive).
Glasgow 2020-2021	Moderate to high	Political: the EU takes a leadership role in announcing decarbonisation by 2050 and underpinning this with measures; other countries follow. Economic: a border tax adjustment for energy-intensive products is announced.
Moderate to high actorness. The EU has become increasingly attractive throughout the years in political and economic terms. It has not just shaped market rules related to key technologies in the climate policy arena, but also established a set of normative rules for, e.g. ETS-based markets. Bilateral partnership agreements on climate change between the EU and other negotiation partners have been evolving over the years. Attractiveness is likely to increase with an integration of climate issues into trade policies.		

In the domain of climate policy, there are good examples of the normative attractiveness of the EU, in particular when it comes to the ETS. Depending on the domestic conditions and political circumstances, specific properties of the EU ETS emerged in the carbon markets of Australia, California, China, Kazakhstan, Japan, New Zealand, South Korea and Switzerland. Design characteristics that evolved globally include, but are not limited to, the type of system (baseline-and-credit system vis-à-vis cap and trade); the ambition level and timing of setting a common cap, sectors, gases and emissions covered; and allocation mechanisms or monitoring, reporting, verification and enforcement. During and after the Copenhagen summit, and then at the Paris COP21, the attractiveness of the EU in terms of political power seems to have gradually diminished, perhaps also due to the growing complexity of the EU ETS, but also to the fact that the system has proven to provide insufficiently stringent price signals.

3.5.1 Changes over time: Increasing economic and political attractiveness

3.5.1.1 Economic attractiveness

As for the economic considerations, one has to distinguish between the economic attractiveness for firms because of the size of the European market and the economic attractiveness for governments. For example, for producers of solar panels for the European market, its feed-in tariffs are attractive, as the policies grant high prices for solar panels. However, this does not necessarily imply that the governments of these countries have incentives to cooperate.

The situation is different when Europe enacts regulations on access to European markets. In this case, governments from other countries that seek to avoid non-tariff trade barriers adopt

similar regulations. This has been described as the California effect (Vogel 1997). The exhaust gas standards for automobiles enacted in California provided an incentive for other countries to implement similar regulations in order to prepare their domestic industry for the Californian market. Similar effects can be observed for Europe, e.g. the European regulation on chemicals was emulated in other regions of the world (Jacob and Volkery 2005). European regulations on energy-using products, e.g. the Ecodesign Regulation or the limit values for CO_2 from cars, impose similar barriers in access to European markets and because of this they are emulated elsewhere (Jacob et al. 2005).

Another economic incentive emerges from resources provided by the European Union as part of development cooperation. In the field of climate policy, the JI and CDM instruments were of particular importance in this regard for the Kyoto Protocol. By means of investment in the technologies applied in developing countries and emerging economies, European firms were provided credits for emission reductions. As part of the Kyoto process, methodologies and processes were developed to ensure the quality of the emission reductions abroad. The transition of the CDM to the Paris Agreement is not yet resolved.

Although CDM and JI projects are not formally conditional in exchange for cooperation with the EU in international negotiations, the instruments provided substantial incentives for developing countries and emerging economies to become engaged in international climate policies. The instruments compensate for the additional costs of emission reductions through low-carbon technologies. As part of the Paris Agreement, the GCF was set up as another mechanism to provide development aid. Developed countries provide financial resources which are distributed by the GCF. How did these two economic mechanisms (regulations on market access and provision of development cooperation) evolve over time?

Table 18. Evolution of economic mechanisms over time

	Market access with relevance to the climate	Development cooperation
Kyoto	Not relevant: free trade was the dominant paradigm, e.g. limit values for CO_2 emissions from cars based on voluntary agreement	Introduction of the CDM and JI
Copenhagen	Regulatory measures for cars and energy-consuming products	
Paris	Introducing tariffs on solar panels	Introduction of the GCF
Glasgow	Announcement of border tax adjustments	

Source: Authors' elaboration.

3.5.1.2 Increasing political attractiveness as illustrated by ETS policy emulation

The EU has been attractive in terms of setting rules for ETS-based markets (China) and attractive as a discussion partner as illustrated by increased partnerships with China, Japan, and the US early on. Over the years, several policy instruments that are central to EU climate governance became attractive and diffused into other countries. Among them are several

aspects of the EU ETS carbon trading model, which over time has seen a lot of interaction and interlinkages with other carbon trading systems worldwide (see Gulbrandsen and Wettestand 2018). Depending on the domestic conditions and political circumstances, specific properties of the EU ETS emerged in the carbon markets of Australia, California, China, Kazakhstan, Japan, New Zealand, South Korea and Switzerland (ibid.). Design characteristics that evolved globally include but are not limited to the type of system (baseline-and-credit system vis-à-vis cap and trade); the ambition level and timing of setting a common cap, sectors, gases and emissions covered; and allocation mechanisms or monitoring, reporting, verification and enforcement (for a full list see ibid. 3ff). The notion of flexibility mechanisms was not a genuine idea of the EU but became a central aspect of the EU ETS, handing power to Member States through national allowances, using CDM credits from 2004 onwards and JI credits from 2008. The ETS was divided into four phases and characterised by a highly decentralised design (see above).

During Copenhagen, the EU became less attractive in terms of political partnerships, as it failed to follow through with its interests, because it was an incoherent and divided actor. At the same time, a BASIC bloc formed (the US, Brazil, South Africa, India and China), which had significant political leeway. Thus, the attractiveness of cooperating with China, the US and emerging economies was apparently significantly higher than fostering cooperation with the EU. Yet, despite the EU's shortcomings, the EU has managed to remain attractive as a coalition partner with shared interests with least developed countries, AOSIS and others (Van Schaik 2012).

3.5.1.3 Over-complex rules of the market stability reserve system

Around the Paris Agreement, the European Commission adopted a market stability reserve, which addresses the surplus of allowances and is a central reform of the EU ETS. The MSR is a rule-based mechanism that seeks to provide carbon-price stability for the EU ETS. The MSR was incorporated as part of the Green Deal but is argued to have rules that are too complex (Pahle and Quemin 2020). As carbon prices are a core concern for Chinese authorities and other carbon markets, the coherent review of the MSR in 2021 is not just central to the future of the EU ETS, but also in terms of the mechanism being introduced elsewhere.

The MSR was incorporated into the European Green Deal and is argued to have rules that are too complex, and may have to be revised if the EU is to remain an attractive model for other countries. Overall, the 'moderate/low' attractiveness level attributed to the EU during the Kyoto phase becomes less negative ('moderate') around the Copenhagen summit, which marks a failure of the EU's 'soft power' and perhaps also its 'normative power'. The emergence of the BASIC bloc (the US, Brazil, South Africa, India and China) led to a situation in which it was more attractive to cooperate with the US, China and emerging economies than strengthening cooperation with the EU. The fact that the Dieselgate scandal exploded more or less around the same years further deteriorated the EU's image as a leading standard-setter at the global level. Later, the situation only marginally improved, particularly since the targets proposed by the EU at the Paris summit appeared to be insufficiently ambitious.

3.5.2 Outlook: European Green Deal

In preparation for the COP in Glasgow, with the obligation to submit increased ambitions, the Green Deal set a standard for a commitment to de-carbonisation by 2050, underpinned with concrete measures. This serves as a model and point of reference for other countries, including the US, which takes a similar approach, and China, which announced its own plans for decarbonisation by 2060. More specifically, the EU triggered a debate on the role of LULUCF in the context of its ambitions, and the role of carbon pricing. The EU proposed a global minimum price for carbon emissions.

In support of this ambition, the EU is developing proposals to introduce border tax adjustments. This should level out possible disadvantages for European producers of energy-intensive goods and introduce tariffs for non-taxed goods of this kind. By doing this, the EU is likely to gain economic attractiveness in order to maintain access to its markets. However, EU Member States are divided as to how far trade should be limited through additional price tags, which bear the risk of reducing economic welfare.

Against this background, we scored the level of EU attractiveness anyway as 'moderate/high' in the run-up to the Glasgow COP26 meeting.

3.6 OPPORTUNITY AND NECESSITY TO ACT

This dimension examines the EU's opportunities to act in (unforeseen) events and (proactively) shape windows of opportunity. It refers to trends and events in the international system that open up windows of opportunity to act in relation to major climate summits. As a result, the COPs are themselves considered an opportunity to act. This dimension is highly deep dive-specific, as the external environment for policy fields is constituted very differently and not comparable. The external environment of the policy field has an impact on the EU's engagement in specific policy arenas. It is related to how other global actors shape global governance processes, such as the US and China, but also grasps larger global events such as the Covid-19 pandemic (2019-ongoing), the humanitarian crisis of the EU's response to incoming refugees (2015-ongoing) or Brexit (2017-2020). These aspects can only be analysed to a limited extent as part of this report. They must nonetheless be thought of as important structural conditions against which the climate summits and EU action unfold.

In addition to the structuring conditions of climate summits and external factors that determine the EU's opportunity to act, EU efforts have been unfolding against the background of intensifying climate change and growing scientific evidence that climate change will occur more rapidly than expected (IPCC 2018). The reports provided by the IPCC, both the comprehensive assessment reports and special reports, provide the most recent scientific background and evidence for informed policymaking and have underlined the necessity to act. Thus, this dimension does not just cover the question of where joint action is taken in light of COP opportunities, but also reflects upon them against the ever-increasing necessity to act.

Table 19. Opportunity & necessity to act assessment

	Opportunity to act	Necessity to act
Kyoto (1997)	**Moderate to high:** the opportunity structure is favourable for the EU – the opportunity to step into an increased international leadership role. Because of US reluctance to make binding agreements and ratify the Kyoto Protocol, the EU seizes the opportunity to push forward on the EU ETS.	**High:** the US did not ratify the Protocol, nor did China. The second IPCC assessment report is published 2 years prior to the summit. The IPCC Special Report on the *Regional Impacts of Climate Change: An Assessment of Vulnerability* is published ahead of Kyoto, examining the potential regional effects of climate change.
Copenhagen (2009)	**Low:** the EU limits its own opportunities, wanting a more ambitious agreement, but fails to see that others are not ready for a single, legally binding treatment. Unfavourable external actor constellations form, with the keen involvement of other actors with rather different positions, namely the US and the BASIC countries (Brazil, South Africa, India, and China). There is a lack of EU cohesion, amid different Member States' preferences. Changes in the external opportunity structure of EU policymaking: with the Treaty of Lisbon the European Parliament has the power to veto decisions, but is environmentally favourable.	**High:** a new commitment period after Kyoto is needed; there is strong pressure from the NGO sector, but no common negotiation position of the EU and friction between Member States persists. The US makes a big comeback to the negotiation table.
Paris (2015)	**Moderate to high:** the EU seizes the opportunity to become one of the key players in the initiation of bottom-up efforts, yet the US-China bilateral agreement was also crucial in setting the stage.	**Medium to high**: there is growing evidence and pressure from small island development states and AOSIS. The target of 1.5°C comes to the forefront. China-US engagement potentially motivates the EU to sit at the geopolitical climate table. The findings from the Fifth Assessment Report feed into the increasing necessity to act.
Glasgow (2021)	**Moderate to high**: the EU uses Covid-19 as an opportunity for policy linking and presents Green Recovery Investment Plans, combining climate policy with pandemic recovery. The EU uses the absence of the US as an opportunity to strengthen its ties with China and be a major actor in climate geopolitics. The US re-joins the Paris Agreement. The ratcheting-up mechanism of the Paris Agreement comes into force and obliges the parties to present more ambitious plans and contributions.	**High:** growing evidence that climate change will occur more rapidly than expected is outlined in the Special Report on 1.5°C by the IPCC in 2018. Pressure increases due to Covid-19 and the temporary drop-out of the US from the Paris Agreement.

3.6.1 Changes over time: On average, structures offering moderate opportunities

3.6.1.1 Structures favouring opportunities in Kyoto

Kyoto provided structures favourable to opportunities for the EU, based on good constellations of actors, which were strongly characterised by the diminishing role of the US as an environmental leader (Chasek 2001, Vogler and Bretherton 2006, Groen and Niemann 2013). However, the external conditions were not just signified by a progressive distancing of the US, but the end of the Cold War, which 'had enormous overall significance for the development of the EU's external roles' (Vogler and Bretherton 2006: 8). The US reluctance to make binding agreements and ultimately to ratify the Kyoto Protocol provided an opportunity void that the EU was able to fill. The development of the EU ETS presents an instance of policy transfer from the US, relying on the exchange of information with American experts about earlier experience with permit trading in the acid rain programme (Damro and Mendez 2003, Vogler and Bretherton 2006). Although the US actively pushed for a greenhouse gas emissions trading system as a new environmental policy instrument and the EU initially lacked confidence in a market-based mechanism while being unfamiliar with the ETS, a reversal of approaches to climate change occurred that has been described as the 'Kyoto Flip Flop' (Damro and Mendez 2003). With the US rejecting Kyoto, the EU committed to implementing its own variant of a domestic emissions trading scheme signified by a mix of market-based solutions and regulations.

The political dynamics of climate policy were only under development (Oberthür and Ott 1999). Thus, frictions as part of negotiation dynamics were not yet cemented and EU countries were keen to play an active part in the Kyoto process. At the same time, cohesion between Member States did not yet play such a strong role.

3.6.1.2 Structures not favouring opportunities in Copenhagen due to actor constellations and lack of EU cohesion

The necessity frame of Copenhagen was in sync with the EU's demands: beforehand, the AOSIS had put forth a Declaration on Climate Change to express grave concerns about the threat that climate change already poses for vulnerable countries and disappointment over the lack of apparent ambition, urging 'progress towards a fair and meaningful Copenhagen outcome'[34]. Expectations of sealing a deal on a follow-up agreement to the Kyoto Protocol were also especially high on the part of diverse governmental actors and international organisations. Throughout the summit, strong pressure from non-state actors was prevalent. COP15 had the most attendees ever, with close to 115 world leaders attending the summit and more than 40 000 people representing governments, NGOs, intergovernmental organisations, faith-based organisations and media[35].

[34] AOSIS, 'Alliance of Small Island States (AOSIS) Declaration on Climate Change 2009', accessed 10 February 2021, via: https://sustainabledevelopment.un.org/content/documents/1566AOSISSummitDeclarationSept21FINAL.pdf

[35] See UNFCCC 'Conference Copenhagen Climate Change Conference - December 2009', accessed 7 February 2021 via: https://unfccc.int/process-and-meetings/conferences/past-conferences/copenhagen-climate-change-conference-december-2009/copenhagen-climate-change-conference-december-2009-

The EU wanted a single, legally binding and more ambitious agreement but failed to come up with a common negotiation position due to a lack of EU cohesion and Member State divisions. The external opportunity structure was characterised by unfavourable actor constellations (Groen and Niemann 2012a). The US had just returned to the negotiation table and entered into a close alliance with other actors. Simultaneously, a lack of trust in the presidency and secret bilateral negotiations sidelined the process of the UNFCCC, adding to the problem of COP15 being perceived as non-transparent and exclusive (Högl 2018).

At the same time, the EU experienced changes in the external opportunity structure of EU policymaking: the Treaty of Lisbon entered into force in 2009, with the European Parliament obtaining power to veto future international agreements and having to be informed at all stages of the negotiation process. Due to the European Parliament's pro-environmental stance, this change was reluctantly welcomed to potentially contribute positively to international climate negotiations (Groen et al. 2012c). Further, the Treaty mandated the European Commission to represent the EU externally. These changes, however, did not affect the EU during the Copenhagen negotiations (ibid.).

3.6.1.3 Seizing opportunities in Paris

In contrast to Copenhagen, the French presidency of the Paris summit managed to build trust and a very different setting with the non-state actor commitment platform (Högel 2018). COP21 provided a context for reciprocal relations between developing and developed countries for deepening and maintaining corporations (ibid.). The external opportunity structure for the EU in Paris was also determined by the existential threat to small island developing states and their leading role of advocating for strong climate action through AOSIS (Ourbak and Magnan 2018). During the Paris summit, the EU was appreciated for seizing the opportunity to become a key player in initiating bottom-up climate policy (Schoenefeld 2015). The opportunity structure for the EU unfolded amid the perceived necessity to act based on increasing evidence of growing problems for, and thus pressure from, small island development states and developing countries. In addition, the necessity to act was particularly pressing due to the widespread perception of EU failure and its diminishing role during Copenhagen (Liu and Wu 2018).

3.6.2 Current status: From Beijing-Washington to Beijing-Brussels?

A few years earlier, the absence of the US in global climate policy presented an opportunity for the EU to expand its influence and enlarge its role in climate geopolitics. The laggard position of the US was even described as an 'opportunity momentum' for the EU (Mathiesen 2021). It is against this background that the renewed climate engagement between China and the EU must also be understood. The core narrative put forth in public media in this context has been that of China and the EU as leading the way in backing the Paris Agreement (Boffey and Neslen 2017, Charveriat 2017, Xinhua 2019, Craw 2020). One major concern had been that other countries, such as Russia, Turkey or Saudi Arabia would become renegades and leave the Paris

Agreement as well (Charveriat 2017). The narrative of China and the EU as 'saviours' of the Paris Agreement has not just been pushed by public media, but also policy analysts and government officials in both countries.

Strategically, China and the EU solidified their commitment towards each other and the Paris Agreement during the EU-China summit in 2018. Both actors agreed to strengthen their bilateral cooperation through different efforts, such as long-term development strategies for low GHG emissions, energy efficiency, clean energy or low-emissions transport[36]. At the core of the EU-China Climate Change Partnership stands 'the enhanced cooperation of the World's largest Emissions Trading Partners' as expressed in the signed Memorandum of Understanding in 2018 (EC 2018). The cooperation was further solidified through green cooperation in post-pandemic recovery and the planned set-up of a High-Level Environment and Climate Dialogue (EurActiv 2020).

Before President Joe Biden's inauguration in January 2021, policy analysts early on pointed to the likelihood of the US returning to the Paris Agreement but they also noted that the US would continue an 'America First' strategy focusing on national energy markets. Policy analysts also point out:

> Europe's priority is to avoid a return to the days when climate geopolitics were driven by deals between Washington and Beijing; after years of careful relationship building with China, the EU wants to stay at climate's top table. Pushing China to do more to cut its emissions at home is a key goal for the COP26 UN climate talks this November. (Oroschakoff and Mathiesen 2021)

In addition to seizing the opportunities of a solid EU climate policy, the European Commission used Covid-19 as a chance to establish green growth and carbon neutrality as core pillars of a new EU growth strategy in 2020. In this context, the Commission has often acted as a policy entrepreneur. This has been occurring against the background of an absent climate-active US.

In summary, European climate diplomacy has seriously strengthened lately, with Covid-19 and an absent US constituting both a necessity and an opportunity to act.

[36] See European Commission 'Cooperation with non-EU countries & regions, China', available at: https://ec.europa.eu/clima/policies/international/cooperation/china_en, last accessed 7 February 2021.

3.7 CREDIBILITY

This dimension covers how much other global governance actors find the EU to be a credible actor, i.e. believing the EU will do what it commits to do. Perceived credibility can be specific to policy instruments (such as the EU ETS), policy targets (such as the EU's 2030 carbon-neutrality target) or certain policy actors (e.g. individual cabinet members, Directorates-General) and can be affected by particular events (e.g. the Covid-19 pandemic). This section has only limited capacity to reflect upon such a fine granular differentiation of credibility. Instead, it tries to offer the most dominant readings of the EU's credibility over time as presented in the academic literature and as perceived by different global governance actors as well as the EU itself. In the context of credibility, most of the research has focused on the EU's role in breaking with CO_2 pathways that are not in line with a 2°C or 1.5°C temperature limit. This debate reveals the close relation of credibility and policy effectiveness. At the same time, and in addition to a common analysis of EU emission gaps, policy ambitions are often at the forefront of discourses on EU credibility. Simultaneously, EU credibility in climate policy has a strong relational component, i.e. what the EU does in comparison with other global governance players. These debates largely overlap with research on EU leadership and recognition.

Weak institutions are an important factor for the ability of countries to effectively delegate and carry out the implementation of announced policy targets. Despite being a subjective quality, resource availability (dis)unity and cohesion strongly impact credibility (Elkström 2015). At the same time, credibility is also considered an outcome of policy and legislation (Averchenkova and Bassi 2016). These different notions of credibility demonstrate that this dimension is closely interlinked with authority, autonomy and cohesion.

This dimension is also interlinked with the effectiveness of the EU (history of compliance and goal attainment), its reputation, institutional performance and ambitions of efforts, e.g. setting a timetable for emission reduction efforts, engaging in other ambitious agreements, implementing promised actions and having enforcement mechanisms (and the willingness) to do so. Ambition can relate to internal / autonomous commitment (degree of self-imposed commitment, such as legally binding emission-reduction targets), external commitment of EU policymakers (EU commitment towards other governments, e.g. in terms of transboundary emissions) and how the EU commitment binds others.

In a nutshell and following from the analysis, the EU as a credible actor has the following characteristics: it is unified (e.g. Parker et al. 2017); it achieves what it said it would; and it is ambitious, not just in comparison with others but because it takes leadership and consolidates its role in global climate policy (see Liu und Wu 2018) and because of its continued high emissions and historical responsibilities.

Table 20. Credibility assessment

Phase	Assessment (low to high)	Comment
Kyoto (1997)	Low to moderate	The credibility gap between international targets and domestic implementation is gradually reduced through the availability of policy and legislation (e.g. ETS, ESR and Renewable Energy Directive), but technological advances are seen to be the major factor for the EU in reaching its Kyoto targets. BASIC countries point to the historical emissions deficits of the EU.
Copenhagen (2009)	Low	Credibility suffers severely, due to the disunity of the EU at the negotiations and a weakening of the EU's normative legitimacy. NGOs are severely disappointed by EU targets. The continued view of BASIC countries is that the US and EU are the biggest carbon-deficit countries.
Paris (2015)	Moderate	In the run-up to Paris: EU targets are significantly higher than at COP15 but not compliant with the 1.5°C target. There is a lack of agreement among Member States on increased ambition: 10 Member States refuse to make concrete concessions on progressing ambitions, with disunity resulting in a credibility gap. During Paris: a harmonised negotiation decision is reached but under-promising of targets, postponement of important decisions and an absence of the LULUCF accounting framework persist. Still, there is progress on the EU's commitment to mobilise support for other nations through substantial pledges to the Green Climate Fund.
Glasgow (2021)	Moderate	Emission deficits continue to play a role, and climate targets are not in line with a 1.5°C warming ambition and the EU's self-image as a leader in climate policy. EU Member States cannot agree on raising mitigation ambitions and disunity persists regarding becoming the first carbon-neutral economy. But the EU is committed to the new EU climate law and setting a long-term target, thereby increasing ambition. Success and improved credibility will rely on some Member States receiving greater support in reaching their targets, thereby lowering disunity and friction within the EU.
The EU has **moderate actorness** related to climate credibility and presents a very mixed picture. The weak pricing signal of the EU ETS infringes on the EU's credibility. At the same time, EU credibility has increased from Kyoto to Glasgow when looking at resources legislation and institutional capacity dedicated to climate governance, but policy targets also continue to be reached through other means such as technological advances. Simultaneously, some global governance actors (BASIC countries and NGOs) consider the EU targets not ambitious enough and not in keeping with the EU's historic responsibility. Member State divisions on raising mitigation ambitions persist and an EU pattern of under-promising continues to affect EU credibility.		

3.7.1 Changes over time: Moderately increasing credibility

3.7.1.1 Credibility gap during Kyoto due to lowered ambitions, flexible instruments and implementation deficits

In the 1990s, the slow progress on effective domestic climate policies in contrast to the EU's international commitments has been described as a 'credibility gap' (Oberthür and Kelly 2008: 39). Although the EU reached its 8 % reduction target under the Kyoto Protocol, it has been pointed out that the EU initially proposed more ambitious reductions, which did not come through, and it ultimately agreed to lower its targets. Although the EU was successful in keeping to its emission reduction targets as set for the first commitment period under the Kyoto Protocol, it has been argued that external factors – such as Wall Fall profits in light of economic restructuring in East Germany, central and eastern Europe, as well as the financial crisis – were also responsible for the outcome (see also Böhringer 2003, EC 2004, EEA 2010).

At the same time, there has long been debate regarding the trade-offs between the flexibility and commitment of the EU, especially in climate policy (e.g. see Brunner et al. 2012). Credible policies, goals, institutions and actual policy performance are key to building trust and support for more ambitious climate policymaking by EU institutions. The CO_2 limits set by the ETS are considered important elements post-Kyoto that led to a shrinking credibility gap. Yet, deficits in the implementation of existing policies, such as the Renewable Energy Directive, left the emission reduction potential under-exploited. Apart from increasing the ambition of the policy targets, the implementation of the targets through different legislative proposals such as the ESR or a new directive on renewable energy or the ETS were crucial for the improved credibility of the EU in the 2000s, helping to reduce the credibility gap (Oberthür and Kelly 2008).

From a perspective of developing and newly industrialised (BASIC) countries, the historical carbon deficit has been heatedly debated. In this context, the EU and other Annex I countries have been discussed as notorious over-shooters of CO_2 emissions, and together with the US, the biggest deficit countries when it comes to the total carbon budget (1990-2050) and historical emissions (1900-1999) (BASIC expert group 2011). These observations result in several implications for the EU, that if not met, run the risk of resulting in an even greater credibility gap in its policy aspirations.

3.7.1.2 Weakening Copenhagen

Different viewpoints postulate a nadir in EU credibility during and after the Copenhagen Climate Conference in 2009. The disunity of the EU at the negotiations and weakening of the EU's normative legitimacy around the embrace of a new universal framework that would bind all major emitters and the potential weakening of the legal status of industrialised countries' commitments further infringed EU credibility (Sterk et al. 2010). Aside from NGOs being severely disappointed by EU targets, non-Annex I countries point to neglect of the historical responsibility of the EU and US and great disappointment at an exclusive drafting process that excluded the majority of countries (Phillips 2009, Sterk et al. 2010). This blow to the EU's self-image as a global leader eroded the EU's external credibility as part of the international climate negotiations (Sohn 2016). The debates around Copenhagen reveal that EU credibility is often

linked to the EU taking the lead, setting ambitious targets and acting as a unified actor, counterbalanced by other increasingly global governance figures such as China.

Post-Copenhagen, and despite low prices, the EU ETS reduced CO_2 emissions by 1.2 billion tonnes between 2008 and 2016, which is almost half of what the EU promised to reduce under the second, and bits of the third, commitment period of the Kyoto Protocol (Bayer and Aklin 2020). Yet, the low pricing signals also led observers to being sceptical about the EU ETS, as they are considered to undermine the proper functioning of carbon markets (ibid.). The reliance on market-based instruments is another contested factor for EU credibility.

3.7.1.3 EU credibility undermined at Paris because of under-promising targets

Before the Paris summit took place, NGOs had criticised the EU Paris pledges for lacking 'ambition and clarity on crucial policy issues', thereby undermining EU credibility (CAN Europe 2015, Pashley 2015). The Paris Agreement brought forward a five-yearly stocktaking cycle to increase ambition, which will begin in 2023. The 'ratchet-up' mechanism calls upon all parties to the Paris Agreement to present progression in ambition as part of the consecutive NDCs. This provision will require the EU to update its NDCs and overall ambition, in addition to the due review of the ESR in 2024. Because the EU was one of the parties calling for the inclusion of the ratchet-up mechanism as part of the Paris Agreement, failing to enhance the EU's NDC could lead to a loss of credibility (Marcu et al. 2019).

Although the EU targets for the Paris Agreement as set forth in the EU's INDC were considered to rely on the latest science, and largely in line with the 2°C target, NGOs were disappointed, and for instance said that the commitment was 'thin on details and ambition' (WWF 2015). The expectations by non-state actors and policy advisers had been high in terms of the EU going much further than a 'solid commitment' (CAT 2015, E3G 2015, WRI 2015, WWF 2015a; see also Evans 2015). The EU later adjusted its initial draft proposal to include emissions from land use, land use change and forestry, which was noticed positively, but it still lacked clarification as to how LULUCF would be concretely approached (Fransen and Blumenthal 2015).

As part of its submitted NDC, the EU was accused of using lower policy targets to 'drive by sight' and using under-promising as a deliberate strategy to be able to progress in ambition later (E3G 2015). The critique of the EU's ambition was echoed by other environmental organisations, which viewed the EU as a key actor of climate diplomacy due to 'leading by example' and implementing ambitious climate action domestically (Astuccia 2019). The EU did not lead by example regarding its targets, which were not in line with the more ambitious 1.5°C target. Instead, the EU's habit of 'over-delivering and under promising' was called into question when pointing out its role in setting global expectations for Kyoto's successor (e.g. E3G 2015, Evans 2015).

Although the EU targets were ambitious in relative terms, i.e. when compared with other parties to the UNFCCC, and congruent with the 2°C target, the limited credibility was not just a result of unambitious targets as submitted in the INDC, but also a result of diminished cohesion between EU Member States. The lack of consensus within the EU and Member State

divisions on the progression of ambition corresponds with lower policy targets. In this context, the reduced engagement of the EU and resistance of some Member States to an increase of the EU's 2030 mitigation ambition as part of the five-year review has been heatedly debated. A bloc of 10 countries (Bulgaria, Czechia, Croatia, Estonia, Greece, Hungary, Lithuania, Malta, Poland and Romania) thwarted efforts to include more explicit language on the progression of ambition (see also Morgan 2019).

Another core critique of EU credibility evolved around the high number of surplus emission credits and policies related to deforestation and land change. The removal of surplus emission credits (also referred to as EU allowances or climate credits) from the EU ETS is considered an important measure for reaching the EU's overall reduction targets and has been central in the long-standing debate on EU ETS reform. During Paris, NGOs and climate think tanks argued that the failure to remove surplus credits from the EU ETS could weaken its 40 % reduction target, aside from uncertainty of accounting from the LULUCF sector (e.g. CAN Europe 2015; 2016, CAT 2015). Although global expectations for increased mitigation potential from the LULUCF sector and an effective LULUCF accounting system are high (e.g. see Pozzi 2017), accounting and reporting rules under the Paris Agreement left countries a larger degree of freedom to develop their own accounting systems in contrast to accounting rules under the Kyoto Protocol, which were strictly defined (Nabuurs et al. 2018). The EU INDC deferred the decision on how to include LULUCF into its 2030 target to 'as soon as technical conditions allow and in any case before 2020' (EU LV 2015).

3.7.1.4 Higher pledges and the EU's role in a high-ambition coalition contribute to increased EU credibility

Aside from arguments that the EU's targets were under-promising, its pledges were substantially higher than at COP15 in Copenhagen and convincing enough to generate support from other countries. This has been argued to have positively contributed to EU credibility, underpinned by substantial pledges to the Green Climate Fund and financial commitments under the European Development Fund Intra-ACP strategy, pledging to allocate EUR 475 million to support climate action and resilience in African, Caribbean and Pacific countries (Sohn 2016). Furthermore, it has been pointed out that the EU played a key role in forming the high-ambition coalition as part of the Cartagena Dialogue. The coalition itself was considered credible, because there were coherent policy demands that reflected the main interests of the alliance members (Hirsch 2016). The Paris Agreement and the alliance with developing countries has been argued as an instance of resurrected EU credibility (Sohn 2016).

The swift ratification of the Paris Agreement was welcomed by the NGO sector (e.g. Oxfam 2016). The alignment of all future EU policies with the Paris Agreement was even considered a 'credibility test' (ibid.). Within the European Commission, President Jean-Claude Juncker emphasised that 'slow delivery on promises made is a phenomenon that more and more risks undermining the Union's credibility' (EC 2016). At the same time, the post-Paris emission reduction pledges suggest the highest credibility based on policy and legislation for the EU, Korea and Mexico (Averchenkova and Bassi 2016). Although the EU is internally concerned about fair and ambitious targets, and allocating responsibility fairly, the need to address the

historical surplus emissions has been pointed out. In this context, EU engagement in international climate finance has been welcomed, positively influencing its credibility.

3.7.2 3.7.2. Current status: Continued moderate credibility

For the EU, the temporary US exit from the Paris Agreement was considered by many 'an opportunity to consolidate its role in climate change diplomacy, which may yield benefits in terms of improved image and credibility for the EU' (Liu and Wu 2018: 10). Against the background of internal economic and political challenges such as Brexit, leadership in climate policy is considered a more broadly defined indicator of credibility (ibid.). When looking at credibility related to climate policy itself, the ability to balance ambivalence on increased policy ambition and effective implementation has become a litmus test for the EU's credibility.

A recent study examined the national climate policies of the seven largest emitting economies for which national models were available to evaluate implementation of the Paris Agreement (Roelfsema et al. 2020; see also Table 21). The results show a significant implementation gap or ambition gap for all of them, i.e. Brazil, China, the European Union, India, Japan, the Russian Federation and the US (ibid.: 6). Collectively, they fall short of meeting the objectives set forth by the Paris Agreement to stay well below 2°C and even fail to meet their ambitions as per the NDCs. The results are presented in a multi-model scenario analysis which shows that the implementation of current policies leaves a median emissions gap of 22.4 to 28.2 gigatons of CO_2 equivalent ($GtCO_2eq$) by 2030 for the 2°C emission pathway and the 1.5°C pathway, respectively. China, India, Japan and the Russian Federation are close to achieving their NDCs, while this is not the case for the EU (ibid.:2).

Table 21. Absolute ($GtCO_2eq$) and percentage impact of policy implementation relative to a no-new-policies scenario and implementation gap with the NDC scenario (median value and 10)

Economy	Absolute impact of policy implementation relative to no new policies scenario ($GtCO_2eq$)	Percentage impact of policy implementation relative to no new policies scenario (%)	Absolute reductions between national policies and conditional NDCs ($GtCO_2eq$)	Percentage reductions between national policies and conditional NDCs (%)
World	3.5 (2.3, 5.2)	5 (4, 8)	7.7 (5.3, 9.7)	13 (9, 16)
China	0.7 (0.5, 2.3)	5 (2, 14)	0.9 (–0.5, 3.7)	6 (–3, 22)
United States	0.4 (0.3, 1.2)	6 (4, 13)	2.1 (1.5, 3.2)	31 (22, 38)
European Union	0.5 (0.3, 0.6)	9 (7, 15)	0.7 (0.6, 1.8)	19 (15, 33)
India	0.1 (0, 0.5)	3 (0, 7)	0.1 (–0.1, 0.3)	2 (–3, 6)
Japan	0.1 (0, 0.1)	7 (2, 8)	0 (0, 0.3)	4 (–4, 23)
Brazil	0.0 (0, 0.2)	3 (0, 11)	0.5 (0.2, 1)	30 (14, 44)
Russian Federation	0.0 (0, 0)	0 (0, 2)	0.1 (–0.1, 0.2)	3 (–3, 7)

Source: https://www.nature.com/articles/s41467-020-15414-6/tables/2

Aside from the EU's recent emission gaps, the European Parliament called on the Commission and EU Member States to increase ambitions in the lead-up to the Glasgow summit and called into question the EU commitments in advance of COP26:

> In its communication on the European Green Deal, the Commission promised to assess the feasibility of a 50-55 % goal by the summer of 2020. It has come to the MEPs' attention that the Commission is considering postponing its assessment until the autumn, which would mean that the EU would enter into diplomatic exchanges and the preliminary COP26 negotiations without having made any

> commitments of its own. This could seriously jeopardise its chances of agreeing on ambitious measures with its international partners. Moreover, it would undermine the EU's credibility and its status as a leader in both global and domestic climate policy. (EP 2020a)

The target of becoming the first climate-neutral economy by 2050 and leading by example has been blocked by eastern European countries and thereby drastically affected the EU's credibility in the lead-up to the Glasgow summit. This, once again, brings forward the close entanglement of credibility with other issues, such as policy effectiveness, EU cohesion, historical responsibility, ambition and leadership, which, combined, matter for the EU being considered a credible actor. Given the EU's self-proclaimed image as a strong actor in climate policy, the issue of EU leadership is especially prominent in debates on EU credibility.

4. EU effectiveness in climate policy

4.1 INTRODUCTION

The previous section examined the EU's actorness in climate policy over time. This section asks how effective the EU has been in this area. Amid globally rising anthropogenic GHG emissions and more rapidly intensifying climate impacts, the need for improved climate policy effectiveness has been discussed from a variety of angles. Recent viewpoints have analysed the role of international treaties themselves in curbing GHG emissions, such as the Kyoto Protocol or the Paris Agreement (e.g. Dimitrov 2019 et al. 2019, Kim et al. 2020, Raiser et al. 2020). These articles focus on the correlative aspects of global climate change frameworks and sustainable development. They further distinguish different aspects of effectiveness, such as institutional and environmental effectiveness (Dimitrov et al. 2019, Raiser et al. 2020) or economic and environmental effectiveness (Kim et al. 2020). Other angles examine the role the EU plays in reducing global GHG emissions (e.g. Wettestad 2000, Oberthür and Kelly 2008, Böhringer 2014).

Focusing on the EU's internal effectiveness, further research has analysed the EU's role in EU climate policy development, reaching its own targets and to varying degrees looking at Member State compliance and/or national policy development (e.g. Delreux and Ohler 2019, Schoenfeld and Jordan 2020). In line with examinations of the EU's internal policy coordination, development and effectiveness, a recent briefing by the EEA provides an overview of reported and planned national climate policies in Europe. Despite Member States doing better in reporting and providing more complete information about their climate policies, evidence of actually achieved emission cuts and the costs of policies are reported to be insufficient (EEA 2019a, b). Below the line, the need for information on policy effectiveness is pointed out to help identify successes and failures and provide an informed basis for future policy decisions (EEA 2019b).

4.1.1 Effectiveness as an external goal achievement

In this study, effectiveness is understood as external goal attainment. Goal attainment is contextualised in the sense of actorness, which relates to the EU's external impact at the global

governance level[37]. As a result, EU effectiveness is analysed from the perspective of the EU as an actor that can impact global climate governance (and set global goals). One recent volume has examined what conditions of the EU's internal cohesiveness determine its external effectiveness in global governance (Conceição-Heldt and Meunier 2015). The authors generally find that an internally cohesive EU is more effective in the international context. They also find that diversity (in terms of different actors and interests) does not automatically hinder the EU in international negotiations.

The aspect of 'speaking with a single voice' relates to one internal actorness dimension of the TRIGGER actorness model, that is, cohesion (see Section 3). Cohesion is one of seven dimensions that make up the actorness model, which to our understanding all impact the EU's external effectiveness to varying degrees. Of great relevance for the TRIGGER project is the finding that a low level of internal cohesiveness can co-exist with high, medium or low effectiveness depending on the policy area and the bargaining configuration (ibid.). Thus, a high degree of cohesiveness can even be associated with low effectiveness and cohesiveness is a necessary but not sufficient condition for external effectiveness. In the context of international environmental negotiations, it is even found that cohesiveness can be counterproductive for effectiveness, when the relative bargaining power is high (Delreux 2014). In addition, internal competition could help in developing solutions that work on the global level as well. This mechanism is well known for technological innovation but could likewise work for policy innovation (Jacob et al. 2005). Put simply, the EU having a single voice in global governance can have different outcomes.

Before evaluating the role of actorness as a whole, this section first identifies some core goals that the EU pursued at the global governance level and what policy instruments the EU used to push these goals. Based on this, some (only preliminary) insights are generated at the end on some of the correlative aspects of actorness and effectiveness. A subsequent study would need to examine in greater detail how each of the actorness dimensions interrelate and matter for the EU's external effectiveness.

When looking at the relationship of different types of goals, it is assumed that goals set at micro levels condition goal attainment at the meso (global) level. Micro-level goals can be understood as the more granular objectives the EU adopts in certain settings. In this sense, micro and meso levels are understood as instrumental for macro-level goal attainment, but are also a result of goals set at the global level. The EU's internal climate policy goals are closely related to the global targets, which the EU helped to set. Aside from assuming an interrelation between actorness and policy effectiveness, we assume that the effectiveness of global climate governance impacts the EU's internal effectiveness and vice versa.

[37] Different notions of 'global governance' exist: *the International Encyclopedia of the Social & Behavioral Sciences* (2001) defines global governance as activities that transcend national boundaries at different levels, such as international, transnational, and regional levels, and also refers to activities in the public and private sectors. Deree-Birkbeck (2009) goes a step further by pointing to global governance as the 'processes, traditions, institutional arrangements and legal regimes through which authority is exercised, and decisions taken and implemented at the global level' (p. 1173). These can be formal (as among governments) and also informal (involving a range of stakeholders with or without direct government engagement). This report considers only the formal aspects by looking at negotiations under the UNFCCC and not reflecting upon informal processes with non-state actors.

4.1.1.1 Structure of this section

First, Section 4.2 identifies and reflects upon major EU goals in the climate policy domain as time passed. These goals are understood as meso-level goals, which are specific to this policy domain and where the EU was effective, and were later on endorsed at the global governance level. The related research questions are as follows: What aspects in the global governance regime originated in the EU? Which EU goals were endorsed at the UNFCCC level? The goals, which will be examined in greater detail are (i) the goal of a 2°C warming target (and potentially raising ambition to reach it), (ii) setting binding reduction targets as a design element of global governance architecture, and (iii) promoting acceptance of CBDR principles. These goals correspond with EU macro-level goals and norms. The macro level is defined as the overarching values of the EU as an actor in global governance.

Section 4.3 briefly examines the main policy instruments and how the EU sought the attainment of these goals over time. Section 4.4 takes a closer look at a specific case study at the micro level and examines whether the identified goal was reached or not. The micro level is understood as the individual level and specific points of time in the negotiation process at which the EU sets concrete goals that have external significance (e.g. COP-specific strategic missions or concrete emission reduction targets). The goal that will be looked at is a variant of the meso goal (promoting acceptance of differentiated responsibility) but at a specific moment in time: how the EU pushed for a dynamic interpretation of the CBDR principles in the lead-up to Paris. The CBDR framework not only has distinctive significance for the EU's internal goal attainment and its Member States in terms of setting norms for jointly sharing responsibility, but also impacts on EU leadership in international climate governance (Oberthür 2008). Promoting differentiated responsibility relates to the 'external' aspects of effectiveness, that is, the ability of the EU to attain its targets and potentially shape those of the global governance arena. Section 4.5 summarises some of the main findings and formulates preliminary observations.

4.2 IDENTIFICATION OF EU GOALS IN CLIMATE POLICY

To identify goals in this domain, conclusions from Environmental Council meetings were examined, as the Environmental Council can be considered a central player in EU decision-making. Three points in time were selected – ahead of, during and after three summits (Kyoto, Copenhagen and Paris) – and examined. Apparently, the identified goals remain valid for the upcoming Glasgow summit, but for obvious reasons, the effectiveness of the EU cannot yet be analysed.

The Environmental Council is made up of ministers responsible for matters related to climate change and the environment. It considers itself a 'key policymaker' on climate change and is also in charge of preparing EU positions for international conferences and climate change negotiations[38].

[38] 'Environmental Council configuration (ENVI), European Council, accessed 20 April 2021: https://www.consilium.europa.eu/en/council-eu/configurations/env/

The environmental ministers of EU Member States formally meet two times per year plus at two informal meetings (March, June, October and December) as part of the Environmental Council and in order to make decisions on major climate policy concerns and strategies. In addition to these meetings, another informal meeting of environmental ministers takes place to discuss a particular topic related to the Council configuration in the host country of the Council presidency (Council 2020).

In addition, the identification of goals was also informed by an analysis of secondary academic literature in this domain. Three core goals were identified: (i) the 2°C temperature target and joint goal setting as a means for global climate governance, (ii) the EU's push for using binding, quantifiable emission targets as a design element for global governance, and (iii) the EU's efforts to trigger greater acceptance of differentiated responsibilities. It becomes clear that the goals closely interrelate and that they have a strong relational component, i.e. what goals other global governance actors set and how.

4.2.1 The 2°C target: Global governance through joint goal setting

The EU was the first entity wanting to limit global warming to 2°C in comparison with the pre-industrial level (Geden 2013, Morseletto et al. 2017, Fischer and Geden 2020). Targets and common goal setting have become an increasingly important policy tool for global governance (Morseletto et al. 2017, Vijge et al. 2020). Lately, global goal setting and collectively articulated policy ambitions have also been discussed in the context of sustainable development, where hybrid forms of governance and multiple stakeholders have emerged (Vijge et al. 2020). Here, goal-based governance is also debated as a way to address democratic deficits by ensuring more deliberative inputs and inclusiveness, which not only present a more reflexive way of governance but can also enhance greater output legitimacy and hence improve governance results (ibid. 261).

In the recent climate context, the Paris Agreement was considered remarkable, because the international treaty 'establishes for the first time a global goal with the aim to enhance capacity, climate resilience and reduce climate vulnerability' (EC 2016). The goal referred to is the global warming target of 'well below 2, preferably to 1.5 degrees Celsius' (PA 2015). The 2°C warming target has a long history in global climate governance: it has become one of the most well-known global governance targets, undergoing several phases. Morseletto and colleagues (2017) have identified four phases for the evolution of the 2°C target (see Figure 8). The initial phase (1988 to 1996) focused on the political development and framing of the target, using it as a heuristic and scientifically informed rationale to guide policy. The quantified target was scientifically informed and a largely consensual boundary object in the initial phase. The EU was keen to establish the 2°C target as a global benchmark as well as an EU internal orientation for policymaking. During Kyoto and in close cooperation with the IPCC, the EU first established the 2°C target as an EU goal, but also as an instrument to guide global efforts:

> Given the serious risk of such an increase and particularly the very high rate of change, the Council believes that global average temperatures should not exceed 2 degrees above pre-industrial level and that therefore concentration levels lower than 550 ppm CO2 should guide global limitation and reduction efforts. (EC 1996)

In the second phase (1997 to 2009), the target diffused to the global governance level (Morseletto et al. 2017). The Kyoto Protocol included, for the first time, quantified global emission-reduction targets for industrialised countries. This incident marks an interesting overlap of goals that the EU helped to set, promoting legally binding emission-reduction targets as part of the climate negotiations and an evidence-based narrative of a quantified temperature limit. Aside from the EU's engagement and that of political leaders in shaping the 2°C target, consolidation occurred through the increasing consideration by non-governmental actors and approval in different contexts, such as economic forums (ibid.). During Copenhagen, the EU still stuck to its formulation that global warming 'ought not to exceed 2°C above the pre-industrial level' and endorsed a step-by-step approach, to respect 'the environmental integrity and the 2°C objective' (EC 2009). Copenhagen coincides with the third phase (2009-2010), a time at which the target enjoyed significant recognition by a majority of countries and diplomatic success (Morseletto et al. 2017). Here again, the EU played a significant role in pushing its vision of 2°C as an accepted goal for global governance (ibid.). In the subsequent years, the EU's wording was slightly adjusted to an intended warming target of 'well below 2°C'. The EU's position in preparation for the Paris Agreement expresses it:

> [The Council] STRESSES that, consistent with recent IPCC findings, in order to stay below 2°C, global greenhouse gas emissions need to peak by 2020 at the latest, be reduced by at least 50% by 2050 compared to 1990[1] and be near zero or below by 2100. (Council 2015)

The time ahead of Paris has also been described as the fourth phase of 'disembeddedness' (2011-2015), signified by the target playing a mobilising role but lacking specifications to make it more effective, thereby fulfilling a largely declarative function (Morseletto et al. 2017). The shift to an ever more symbolic function became clear with the EU's NDC submitted to the UNFCCC later on, which stated a temperature target of 'well below 2°C'. The Paris Agreement contained a critical readjustment of the global temperature target. After the Paris summit, the European Commission reflected on the 1.5°C temperature target as an 'aspirational goal' to 'drive greater ambition [and] to highlight the concerns of the most vulnerable countries that are already experiencing the impacts of climate change'. In the same communication to the European Parliament and Environmental Council, the European Commission points to the shortcomings and potentially the need to develop an established method for successful implementation:

> A clear understanding of the specific policy implications of a 1.5°C goal needs to be developed. The 5th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) was inconclusive on this aspect due to sparse scientific analysis. (EC 2016)

The way the EU understood the 1.5°C target was as a symbolic instrument, to send a 'clear signal to all stakeholders' for 'moving from action by a few to action by all' (ibid.). At the same time, the EU perceived the target as a 'dynamic mechanism to take stock and strengthen ambition over time' (ibid.). It has also been described as aspirational to highlight the concerns of the most vulnerable countries. It can be observed that the EU pushed a distinctive narrative and goal as a governance instrument and was successful to the extent that it gained momentum over the years and was ultimately adopted as part of the Paris Agreement. Throughout the process, the EU slightly adjusted its own framing. Contention persists as to

whether the target was useful in actually coordinating different interests and actions in climate governance (Morseletto et al. 2017) and which other factors in addition to the EU were responsible for the target gaining traction.

Table 22. The 2°C target phases

phase:	FRAMING	CONSOLIDATION AND DIFFUSION	ADOPTION	DISEMBEDDNESS
period:	1988-1996	1997-2009	2009-2010	2011-2015
salient facts:	science-driven EU based US soft resistance	EU prominence and increasing global acceptance	UN accord and exceptional presence of state leaders	non in terms of implementation
target`s function:	credibility and trustworthiness	catalysation and wider consent	agreement and "last resort"	symbolic
main feature:	lack of debate in implications and measure	still lack of debate on implications and measures	lack of agreed actions and operational measures	lack of a method for implementation

Source: Adjusted from Morseletto et al. 2016: 669.

4.2.2 Binding, quantifiable emission targets as a design element for global governance

Binding emission reduction targets have been a bedrock of EU climate policymaking (Meyer-Ohlendorf and Bart 2020). They have also been considered an important element in the global governance of climate change. On 1 December 1997, the immediate UN press release during the Kyoto summit contained binding reduction targets for developed countries as core governance elements for climate change (UN ENV/DEV/453 1997). Annex B of the ultimate Kyoto Protocol ended up including a list of 37 industrialised countries and economies in transition and their quantified emission limitation or reduction commitment (UNFCCC 1997). Beforehand, a Council meeting of the Member States and the European Commission in June 1996 emphasised the need to set binding and quantified targets:

> [T]he Council believes it is essential that each of the Annex I parties – it being understood that the Community is treated as one Party – agrees to set quantified objectives for significant overall reductions of greenhouse gas emissions after the year 2000 below 1990 levels, within specified timeframes, not simply to limit the growth of total emissions. [...] If it appears that the strategy would not be effective enough, the Commission will study additional measures including the effectiveness of binding CO2-emission limit values, and, if appropriate, present relevant proposals to the Council. (EC 1996)

The EU's goal before Copenhagen was to come up with a legally binding post-Kyoto commitment agreement. In the process, having a legally binding target was adjusted to having 'an outcome that is as ambitious as possible'. Further, in their Conclusions on the EU position for the Copenhagen Climate Conference, the Council:

> REITERATES that at least all Parties listed in Annex I to the UNFCCC and all current EU Member States, EU candidate countries and potential candidate countries that are not included in Annex I to the UNFCCC should commit to ambitious binding quantified emission limitation or reduction commitments; CALLS UPON other non-Annex I parties that are at levels of development and GDP/capita comparable to those of the group of developed countries, notably OECD member countries and candidates for membership thereof, to consider making similar commitments commensurate with their responsibilities, capabilities and national circumstances. [...] EMPHASISES the need for a legally binding agreement for the period starting 1 January 2013 that builds on the Kyoto Protocol and incorporates all its essentials, as an outcome from Copenhagen in December 2009. CONSIDERS that a single legally binding instrument would provide the best basis for enhancing the implementation and ensuring consistency in the application of the international climate regime post-2012 and facilitating ratification by Parties and entry into force of the agreement. (EC 2009)

Ahead of the Paris summit, Jean-Claude-Juncker, then president of the European Commission, in his State of the Union speech reemphasised the EU's main priority: 'Let me be very clear to our international partners: the EU will not just sign any deal. My priority, Europe's priority, is to adopt an ambitious, robust and binding global climate deal' (EC 2015). The calls for a legally binding agreement significantly interrelate with CBDR principles and differentiated commitments, not just regarding global governance actors but also taking into account the different economic contexts of EU Member States. When looking at the EU's policy targets over time regarding their emission reduction targets and ambitions, the corresponding responsibilities became more differentiated as time passed (see Table 22). Whereas the general ambition to return to 1990 levels related to all 15 EU Member States in the post-Kyoto time, the post-Copenhagen time already aimed at a redistribution of responsibilities with the help of the internal burden-sharing mechanism and an internal differentiation into national binding targets for non-ETS sectors.

Table 23. The evolution of binding, quantified EU targets

Target time horizon	2000	2010 (2008-12)	2020	**2030**
Time the target was set	1990	1997	2007	2014
EU target ambition	Stabilise at (return to) 1990 levels	8% from 1990 levels (original proposal 15%)	At least 20% from 1990 (unilaterally), 30% if others join as part of global deal	At least 40% (domestic) from 1990 levels
Enshrined at UN level	The general ambition was to include in the UNFCCC (Article 4) in text format (not quantitative objective)	8% from 1990 levels	20% from 1990 levels	To be decided in (2015)
Break down of Targets to the national level	All MS (EU15) subscribed to UNFCC goals	Internal EU 15 burden-sharing (from +28% to – 27%)	Internal EU28 effort sharing for non-ETS emissions only (based on 2005 levels)	Internal differentiation into national binding targets for non-ETS sectors (based on 2005 levels)

Source: Climate Policy Hub, Ecologic 2014.

Back at the global level, the EU continued to concentrate on regulation but also learned from Copenhagen, by partially giving up its command-and-control approach, which was characterised by a focus on binding measures coupled with policy ambition. This was still reflected in the EU's strategic documents ahead of Paris, in which the Environmental Council pointed to the combination of legally binding instrumentation, for all parties:

> [The Council] EMPHASISES the importance of agreeing at the Paris Conference: i) an ambitious and durable legally binding agreement under the UNFCCC ('the Paris Agreement') applicable to all Parties and addressing in a balanced and cost-effective manner mitigation, adaptation, finance, technology development and transfer, capacity building and transparency of action and support and containing ambitious nationally determined mitigation commitments. (EC 2015)

Aside from EU climate governance growing into a major regulatory regime (see Section 3), and besides the EU's strong desire for legally binding commitments, recent developments at the global governance level suggest a shift away from regulatory target setting to more flexible instruments. This shift from top-down regulatory policy instruments to softer instruments and bottom-up approaches has been noticed by a variety of researchers and policy practitioners (e.g. Pickering et al. 2019, Coen et al. 2020). Instead, more flexible instrumentation has been considered post-Paris. This mix of harder and softer policy instruments is also well reflected in the Paris Agreement itself, which has been described as a 'crème brûlée approach', combining harder procedural commitments with softer provisions (Pickering et al. 2019). At the same time, the EU continues to use legally binding agreements and quantifiable emission targets internally to build strategic EU positions, as the most recent 'at least 55%' by 2030 of the European climate law demonstrates (Simon and Taylor 2021).

4.2.3 4.2.3 Acceptance of different responsibilities

In contrast to other countries, such as the US, the EU has actively been pushing for the acceptance of different responsibilities of industrialised countries in light of their historical responsibility (EC 1991, Carlarne 2010, von Lucke 2019). Seen from today's perspective, it seems quite surprising that the US was in favour of CBDR principles under the UNFCCC in the initial days of the climate negotiations: Then US Vice President Al Gore had decided to sign the Berlin Mandate, with the Clinton Administration supporting legally binding obligations for developed countries at the global governance level. Yet, at home, the administration was facing growing problems in getting support in Congress and thus became more and more divided on the matter, with rising tensions between the legislative and the executive branches emerging from the mid-1990s onwards (Carlarne 2010). The Byrd-Hagel Resolution put forth by the US Senate in 1997 ultimately stated:

> [The US government] should not be a signatory to any protocol to, or other agreement regarding, the United Nations Framework Convention on Climate Change of 1992 at negotiations in Kyoto in December 1997, or thereafter, which would (a) mandate new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or (b) would result in serious harm to the economy of the United States. (S. Res. 98 1997)

Subsequently, the US demands contradicted the CBDR principle as enshrined in the UNFCCC by insisting that developing countries should make 'meaningful' contributions to future GHG emissions efforts (Harris 2019).

The EU early on promoted the idea of differentiated responsibilities between industrialised Annex I countries and non-Annex I countries, which are commonly referred to as developing countries, least developed countries and small island developing states. Over time, however, the EU's position on how to differentiate responsibilities between countries and UNFCCC parties became more refined, by calling for commitments by developing country parties. The EU articulated the importance of involving all countries and full participation to meet global challenges related to climate change since the early days of the negotiations. Simultaneously, the EU called for the acceptance of differentiated responsibilities and stronger commitments by developed countries, as outlined ahead of COP3 by the EU Council of Environmental Ministers (Council) in Kyoto: 'beside the strengthened commitments of developed countries it is important that the developing countries play their part in producing and using more energy-efficient and lower carbon-emitting technologies and products' (EC 1996).

As a result, the EU differentiated between Annex I and non-Annex I countries, requiring the former to commit to 'policies and measures, as well as quantified emission limitation and reduction objectives within specified time frames' (ibid.). Further, the Council advocated for 'no regrets solutions', and for action beyond that at the Annex I party level. The Council initially did not differentiate too much but understood Annex I parties as one community to be 'treated as one Party' and called upon this community 'to set quantified objectives for significant overall reductions of greenhouse gas emissions after the year 2000 to below 1990 levels, within specified timeframes' (EC 1996). The process of affirming CBDR principles also became known as the Berlin Mandate, according to which developed countries were to act first in implementing the Climate Convention and were obliged to draft a protocol that included additional commitments for industrialised countries (Harris 2007, Carlarne 2010). This outcome of COP1 reflected widespread political support for CBDR principles and established the parameters for legally binding emission-reduction obligations for developed countries (see also Carlarne 2010).

Although the EU affirmed early on that all countries have a common responsibility to address climate change, developed countries were perceived to have a greater 'differentiated responsibility to do so' (ibid.: 11). In that regard, the demands set forth by the EU were different from those of other industrialised countries. The US wanted to extend the commitment principle to countries within the non-Annex I (developing countries) group (Harris 2019). Yet, this split into non-Annex and Annex I countries led to some forms of governance colonialism, with certain countries being excluded in decision-making processes and non-Annex I countries dominating the negotiations, thereby furthering global governance divides. Aside from the obvious differences in political practice, the North-South lens has also been increasingly problematised in critical discourses on geopolitics and global climate justice. Some of the critique focuses on the Global South imagery, including the widespread practice of (self)-

identifying victim countries and the view of states as monolithic, non-dynamic entities, thereby disregarding disparities within states (Joshi 2021).

Going back to political practice and looking at the stance of the US, it is argued that the Bush Administration implicitly recognised the CBDR principle during the early days of the climate negotiations by ratifying the UNFCCC in 1992 (and thereby ratifying CBDR as set forth in paragraph 3.1 of the agreement; see also Blanchard 2003 and Section 1 on global climate governance). US policymakers usually presented a hard-line position, not accepting that large emitters have different responsibilities, defending the American way of life under President George W. Bush and calling for meaningful participation of developed countries during the Clinton Administration (Harris 2007: 349ff., Parker et al. 2011, Pauw et al. 2014, Harris 2019).

Looking at internal EU governance, the EU was quite concerned with coming up with a framework that is a smart combination of targets and policy instruments, differentiated 'to reflect fairness and solidarity' (Debelke and Vis 2016: 19, also see Section 1). The EU's position stands in contrast to the position of the US, which wanted the CBDR principle to be extended to countries within the non-Annex I (developing countries) group (Harris 2007). China and India were initially still regarded within the group of developing countries. Together with other countries like Mexico and Brazil, they advocated for equity and development concerns but had distinctly other demands from least developed countries (Schunz 2014). They argued that developed countries should take the lead. Ahead of Kyoto, Japan had no clear stance on the differentiation of commitments. Its general attitude was a mixture of 'impact-scepticism' and 'techno-optimism' (ibid.). Its position evolved considerably after hosting the Kyoto summit. The stance of countries in the JUSSCANNZ bloc, which consisted of different industrialised countries such as Australia, Canada, Norway, New Zealand and Switzerland, was less clear (ibid.).

In preparation for the Copenhagen summit, the EU underlined that the Environmental Council and its Member States would develop strategies and plans in accordance with CBDR principles and its energy and climate package. Along with calling on other states to accept different responsibilities and enabling country-owned, low-carbon development, it again clarified that all countries, except least developed countries, should commit to preparing ambitious, credible strategies / growth plans (EC 2009). The EU's approach to a differentiated understanding of responsibility once again became visible, characterised by all countries committing, but to different degrees. This approach of outlining a subset of countries has been referred to as 'subtle differentiation' in contrast to the rigid differentiation of Annex I and non-Annex I countries (Mbeva and Pauw 2016).

This EU goal of greater acceptance of differentiated responsibilities interrelates with the perception of equity and fairness, which stands in contrast to some historic contributors and industrialised economies such as the US or Japan. The EU has communicated principles of fairness over time. For example, internal concerns of fairness when allocating its own emissions and distributing responsibilities among Member States relate to EU macro-level

goals. At the same time, EU considerations have also had an external character regarding fairness for non-EU countries when allocating emissions.

During the climate negotiations in 2009, the EU was aiming to enter into a new globally binding agreement and to shift some of the functioning parts of the Kyoto Protocol, which some countries perceived as demolishing CBDR principles (Pauw et al. 2014). In preparation for the Copenhagen summit, the EU had emphasised its intention of taking a fair share of responsibility for reaching a global and comprehensive agreement and called upon everyone to make 'appropriate and adequate contributions' (EC 2009). During Paris, the EU reemphasised this stance and combined it with several policy mechanisms for supporting developing countries and scaling up the mobilisation of international climate finance, which will be examined below.

4.3 HOW HAS THE EU SOUGHT ATTAINMENT OF THESE GOALS OVER TIME?

This section lays out some of the policies, strategies and initiatives the EU has put in place over the observed period to achieve the identified goals in the global governance context. The literature on policy instruments has long differentiated instruments along a hard-soft continuum, that is: obligatory and legally binding instruments vis-à-vis voluntary and non-binding instruments. Studies on policy instruments have become more nuanced, questioning the hard-soft paradigm and arguing for the need to look at how the context of different governance styles, in terms of different policy instrument mixes, is matched with varying sectoral and national circumstances (Zehavi 2012).

Because governance often sits at the nexus of different instruments and goes beyond a hard-soft logic, the Vedung trichotomy of carrots, sticks and sermons was used to conceptualise EU policy instruments in the global governance context. Carrots are considered policy instruments that provide incentives and disincentives and are often financial, such as monetary rewards to encourage or discourage certain action. REDD+ or the EUR 100 billion Climate Finance Fund are prominent examples fostered by the EU, to mobilise action on deforestation or climate action more broadly through offering financial support and for coordinating the collection of resources.

Sticks are defined as legal injunctions that demand or prohibit certain actions (Zehavi 2012). In the context of global governance, entities such as the UNFCCC or the EU have only limited authority to regulate states, or to impose bans. Instead, countries can be 'punished' in different ways, either through imposing financial sanctions or economically disadvantaging them. When looking at stick approaches of the EU at the global governance level, sanctioning mechanisms such as trade sanctions or border tax adjustments stand out. Border tax adjustments have been frequently proposed by the EU but more rarely implemented (Mehling et al. 2017). Border tax adjustments, also known as carbon or CO_2 border adjustments, are an instrument that puts a price on carbon to reduce emission-heavy imports and avoid carbon leakage. This policy instrument has been discussed by the EU over the years, e.g. in the form of a carbon inclusion mechanism in 2009 or a border adjustment proposal for the cement sector in 2016, which would have regulated imported cement from countries without adequate mitigation measures by pricing the carbon content in equivalence to the EU. Most recently, the EU proposed to

introduce a 'carbon border adjustment mechanism' from 2023 as part of the European Green Deal. The mechanism would charge imported goods according to the CO_2 they emitted (for a detailed discussion of the mechanism see Dröge 2020).

Sermons refer to different modes of discourse and strategies related to persuasion, negotiation, or propaganda, such as media campaigns (Zehavi 2012). At the global governance level, a popular example is the IPCC's Special Report on 1.5°C from 2018, which was an important milestone to demonstrate the urgency of climate action by presenting the most recent scientific evidence of already occurring climate change. This document has commonly been used to raise the global level of climate ambition and adjust (national) policy frameworks accordingly. At the EU level, environmental impact assessments and climate assessments also contain important strategic targets, narratives and policy objectives. Further strategic documents, for instance, include those from the EU's 2030 climate and energy policy framework. Certain narratives and (symbolic) targets such as the 2°C warming target are used as (global) governance instruments in addition to the repetition of certain expressions, such as 'appropriate and adequate contributions', 'the EU as a global leader', or the idea of a 'just and fair transition'. Setting up bilateral climate talks, stakeholder alliances and corporations to actively negotiate in a smaller circle of countries are further examples[39].

Table 24. Trichotomy of carrots, sticks and sermons as policy instruments

	Sticks	Carrots	Sermons
Definition	Legal injunctions to prohibit certain action, coercion; in the context of global governance, sanctioning mechanisms	Incentives (mainly financial instruments)	Different modes of discourse: persuasion, negotiation, propaganda
Examples	Border tax adjustments Emissions monitoring through regulations	€100 billion Climate Finance Fund REDD+	EU environmental impact assessments and climate assessments, the EU 2030 climate and energy policy framework, negotiation documents and communications, key EU narratives and expressions, e.g. 'appropriate and adequate contributions', 'Energy Union', CO_2 framings, 2°C target, 'just and fair transition'
Continuum	Hard	Softer	

Source: FUB, based upon Zehavi's Trichotomy (2012).

[39] For a more detailed discussion on EU policy instruments, see e.g., Harris 2007, Wurzel and Connelly 2011, Ecologic 2014, Debelke and Vis 2016. In their 2018 article on 'Environmental and Climate Diplomacy: Building Coalitions Through Persuasion', Diarmuid Torney and Mai'a K. Davis Cross more explicitly focus on policy instruments that relate to the sermons category.

4.3.1 Governance towards the 2°C target: Primarily sermons

The EU is seen as relatively successful in extending its own vision of the 2°C target as an accepted global system boundary during and post-Copenhagen (Morseletto et al. 2017). Yet, the target's approval at the highest political level of the UN also resulted in reduced influence for Europe, as new political powers emerged, opening up the debate and consequences of the target (ibid.). In the lead-up to Paris, other global governance actors took over the discourse, actively shaping the narrative of a 1.5°C pathway. Actors that were active in building a common diplomatic discourse around this issue and influencing key strategic processes on the matter include the AOSIS and small island developing states, as well as a range of sub-state and non-state actors (Ourbak and Magnan 2018, Hsu and Rauber 2021). Apart from the strategic narrative of limiting global warming to 1.5°C, these actors managed to interlink the temperature target with the complex debate on loss and damage.

In the context of the EU, Morseletto et al. (2017) argue, the target became a disembedded object, which proves incapable of promoting effective coordination among relevant actors. When looking at policy instruments employed at the global governance and EU levels, they closely relate to the sermons category in the trichotomy, by focusing on practices of active framing, persuasion and socialisation. These include scientific studies and reports, such as the prominent example of and reference to the IPCC's flagship report, *Global Warming of 1.5°C*, strategic documents, policy package proposals and communications before and during the negotiations. In 2007, for instance, the communication *Limiting Global Climate Change to 2 degrees Celsius: The way ahead for 2020 and beyond* was published by the Commission and directed to the Council, the European Parliament, the European Economic and Social Committee and the Committee of Regions. This makes it clear that the EU was not just lobbying global governance actors but was also lobbying internally within the European Union. The inclusion of scientific advice and knowledge co-production between scientists and politicians was an important element (Gippner 2014). At the same time, the target itself and governing by (joint) goal setting was being discussed as a policy instrument for framing responses to environmental problems (Morseletto et al. 2017).

4.3.2 Binding targets as a design element: A mix of sticks, carrots and sermons

The main goal of the EU, to establish binding targets as a major design element in global climate governance, ended up being adjusted during Paris. It has been widely argued in the literature that Paris marks a transition from former regulatory approaches to a more hybrid system that combines voluntary and binding governance elements. This rise of a 'soft law approach' has also been discussed as an instance of incantatory governance (Aykut et al. 2021). The notion of 'incantation' aims to emphasise the iterative nature of global governance as a ritualised and repetitive practice with an increasing recognition of communicative and symbolic devices as core governance instruments (ibid.). Accordingly, it is argued that the inflationary use of communicative practices and weakening of legal and regulatory frameworks have become a new business culture in global governance, which builds more strongly upon the facilitation of policy iteration.

That being said, legally binding targets were not entirely off the table for Paris. The 'ratchet-up' mechanism is legally binding to the extent that countries have to engage in what is also known as 'global stocktaking', and every five years have to evaluate the adequacy of their national efforts, which requires them to revise their emission targets. The modest approach of the Paris Agreement and focus on legally binding obligations of *conduct* instead of *results* has been widely discussed in the literature (e.g. Brodansky 2016, Aykut et al. 2021).

Overall, Paris is considered to be more flexible legally. Going back to EU policy instrumentation, a mix of different instruments was employed – not only joint communications during the negotiations, market-based instruments and persuasive strategies like lobbying other countries, but also binding targets, lawfare and increasing legislation within the EU. At the global governance level, the EU learned, especially during Copenhagen, that the proposal of a stick approach has its limitations. But, going back to the earlier statement by Jean-Claude Juncker, it also becomes clear that different actors within the EU employ different practices and put varying emphasis on calling for a binding agreement. For Paris, the EU ended up adopting a policy mix of different instruments, which is also an extension of the internal and at times ambivalent dynamics of the EU as a non-monolithic actor.

4.4 THE EU IN ACTION: PUSHING FOR A DYNAMIC INTERPRETATION OF THE CBDR AT PARIS

This section explores one distinctive case study at the micro level, which is the EU's goal of promoting a dynamic interpretation of the CBDR principle during Paris, which commits all countries but is differentiated according to capacity principles. It examines whether the EU was successful in achieving this goal in the global governance context and what policies, strategies, and initiatives the EU put in place to do so. In line with the previous section the instruments are differentiated across the trichotomy of carrots, sticks and sermons.

4.4.1 Acceptance of a dynamic interpretation of differentiated responsibilities at Paris

In preparation for the Paris Agreement, the EU actively pushed for a reinterpretation and called for acceptance of the adjusted CBDR principle (Petri and Biedenkopf 2020). Two months ahead of the Paris summit, the European Council had proposed that the Paris Agreement should contain 'fair, ambitious and quantifiable mitigation commitments by all Parties, [...] in light of different national circumstances and evolving economic realities and capabilities'. Further, it states that 'the 2015 agreement should fully respect the principles of the convention and parties' common but differentiated responsibilities and their specific circumstances. Yet, each party should make commitments to limit or reduce its emissions' (EC 2015).

By calling upon all UNFCCC parties to commit, but according to their respective circumstances, the EU's position was in accordance with other industrialised states (Winkler and Rajamani 2013, Pauw et al. 2014). However, compared with earlier efforts during Kyoto and Copenhagen and global governance actors, the EU was seen as particularly successful in being accommodative and building bridges considering the continued and hard contestation by other countries during Paris (Petri and Biedenkopf 2020). The EU early on demanded that a post-2020 climate regime should be based on a more differentiated interpretation of common

but differentiated responsibilities and respective capabilities. Hence, it expected developing countries with large amounts of emissions to implement mitigation measures (Torney 2013, Pauw et al. 2014). The 'applicable to all' phrase was intensely debated during Durban due to the implicit expectation of greater symmetry in commitments undertaken by all parties of the UNFCCC (Winkler and Rajamani 2013). Ahead of and during Paris, the EU was particularly effective as an actor in shifting the reinterpretation of CBDR principles and as a negotiator within the UNFCCC realm (Petri and Biedenkopf 2020). The principle had been enshrined in the Convention in 1992 under Article 3 Principles already, but now gained new prominence as part of the Paris Agreement 24 years later. Thus, the adjusted principle of common but differentiated responsibilities and respective capabilities was ultimately adopted in the Paris Agreement. Paragraph 3 reads:

> The Parties to this Agreement [...] In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in light of different national circumstances, [...] have agreed as follows: This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances. (UNFCCC 2016)

This transition from the earlier division of Annex I and non-Annex I countries has been widely discussed in the literature and was cherished for 'putting equity into action' and operationalising the CBDR principle (e.g. Raman and Ling 2016). The EU was key in building momentum for this understanding and was overall successful in reaching its goal of a dynamic interpretation of CBDR, which was enshrined in the Paris Agreement. This resulted in the North-South and Annex I/non-Annex I dichotomies being partially removed.

4.4.2 Instruments and mechanisms for implementation: Sermons and carrots

The EU's approach was based on a mix of sermons and carrots characterised by strategies of bridge-building, deliberation and persuasion, coupled with financial incentives. The EU was very active in mobilising climate finance, not just through an EU internal allocation of funds but also through its support and substantial contribution to the Green Climate Fund. Thus, the EU called upon other countries to 'come forward with fair and ambitious INDCs as soon as possible in the coming few weeks' to aggregate efforts 'towards the below 2°C objective' (EC 2015). At the same time, it reaffirmed its own very concrete contributions by stating:

> [T]he EU and its Member States have and remain committed to scaling up the mobilisation of climate finance in the context of meaningful mitigation actions and transparency of implementation, in order to contribute their share of the developed countries' goal to jointly mobilise USD 100 billion per year by 2020 from a wide variety of sources public and private, bilateral and multilateral, including alternative sources of finance; in this context, RECALLS its conclusions on climate finance of 7 November 2014; REITERATES its strong support for the Green Climate Fund and LOOKS FORWARD to early allocation of initial funding; UNDERLINES that the Paris Agreement's provisions on climate finance need to be dynamic and able to adapt to changing realities and needs by reflecting Parties' evolving capabilities and responsibilities; furthermore, REFERS to its forthcoming conclusions on climate finance. (EC 2015)

In terms of bridge-building, the EU made concessions and was more accommodating by taking a less vocal role in the process and reaching out to more vulnerable countries (Petri and Biedenkopf 2020). Meanwhile, the EU's commitment was also closely tied to (internal) principles of 'transparency, economic efficiency and cost-effectiveness, as well as fairness and solidarity in the distribution of efforts between Member States' (EC 2015). This relates to EU macro-level goals and its commitment to the fundamental norm of equity and fairness. In addition to pushing for a dynamic reinterpretation through the provision of financial incentives, EU climate diplomacy strategies, bridge-building and persuasion, it has been argued that as part of the procedural rules, the enhanced transparency framework of the Paris Agreement has enabled the operationalisation of the dynamic CBDR interpretation (Wang and Gao 2018). The transparency framework made it possible to show a common ground between developed and developing countries by requesting each party to the UNFCCC to provide certain information, such as GHG inventories and NDC progress (ibid.). The commitment to a dynamic understanding of responsibilities and commitment by all parties, supported by climate finance, was reaffirmed post-Paris:

> In terms of climate finance, the EU and its Member States are committed to scaling up the mobilisation of climate finance in the context of meaningful mitigation actions and transparency of implementation, in order to contribute their share of the developed countries' goal to jointly mobilise USD 100 billion per year by 2020 from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance. Current trajectories for EU development assistance will substantially contribute to reaching the EU's share of the USD 100 billion goal. (EC 2016)

Simultaneously, strategies of framing were built upon earlier language used in the Rio Declaration of 1992 (Pauw et al. 2014), as well as the China-US Agreement, thereby potentially winning over former hardliners. If one looks back at earlier policy instrumentation, the EU early on investigated differentiated principles as part of its internal governance. The EU established a joint responsibility for emissions reductions through the burden-sharing mechanism during Kyoto, which came into effect in 2002 when the Kyoto Protocol was ratified. The core goal of the EU was to get as many Member States as possible around the table:

> The Council confirms that equitable sharing of any emission reduction objective by the Community as a whole, i.e. the burden differentiation among Community Member States, is a fundamental element of the Community. In further elaborating this issue, the ad hoc Group is requested to assess the limitation/reduction potential and the cost of policies and measures at Community level, in addition to those taken or envisaged at national level, as an approach to the equitable sharing of the burden. (EC 1996)

Internally, the EU further adopted policy strategies, such as the EU 2030 climate and energy framework, and a reform of the Effort Sharing Regulation to ensure fair and cost-effective achievement of targets. The market-based ETS itself became an instrument for fairness, based on the EU's goals to deliberately construct it in an inclusive manner (Eckes and Kochenov 2013). The ongoing reform of the Effort Sharing Regulation relates to internal EU instrumentation to generate support from its Member States. Guaranteeing EU internal principles of fairness has been playing an important role not just for the EU's internal governance of climate policy, but also how it interrelates with a common position on global questions of climate justice. This goal achievement of pushing for and actually seeing a dynamic

interpretation of the CBDR principle implemented had wide implications: it fundamentally relates to broader principles of fairness at the external and internal level of governance and long-standing debates on global climate justice.

4.5 SUMMARY

This section has examined the EU's external global governance goals. These are (i) pushing the idea of a 2°C temperature target; (ii) setting binding, quantifiable emission targets as a design element for global governance; and (iii) promoting global acceptance of different responsibilities. The goals were identified based on analysis of Environmental Council meetings and secondary literature. Due to the scope, the EU's external effectiveness could not be examined in greater detail for all goals. A preliminary analysis was conducted for the third goal by looking at the extent to which the EU was successful in promoting a dynamic understanding of the CBDR principle. Although the EU's differentiated approach has been around for a while, it only drew attention in the lead-up to and during Paris, when the dynamic interpretation gained traction and different policy instruments more well-suited to achieve this goal were used. And even though this was in line with other industrialised countries, the EU was especially successful in pushing this goal in the global governance landscape through a combined approach of carrots and sermons. While the EU used persuasive strategies (sermons) by holding bilateral talks, setting up corporations with different countries and acting as a bridge-builder for different positions, it also made use of financial incentives, by mobilising and coordinating climate finance and putting (financial) resources behind its own aspirations. After years of a global governance division between developing and developed countries, the division ended.

Although a detailed analysis was not conducted, a few careful observations can be made for the other two goals nevertheless. They present a slightly different picture in terms of the EU's external effectiveness. The adoption of the 2°C target became firmly established in global governance structures, also because of the EU, but then diffused and the idea of a temperature pathway was taken up by different actors. The engagement of more vulnerable countries, such as small island developing states, combined with the strong efforts of non-state actors, already-intensifying climate change and more recent scientific evidence, shifted the target and global governance vision to a 1.5°C pathway (and 'well below' 2°C). To a certain extent, one might be inclined to argue that the EU lost leadership and power to interpret the parameters of the temperature target. Yet, this argument would fall short of taking into consideration the global governance dynamic and importance of accounting for more urgent scientific evidence, as well as matching this with political circumstances and demands at home. The governance landscape is always changing, which includes (new) actor constellations and constantly evolving evidence, and it requires the adjustment of policy goals and responses. The increasing need for policy iteration and policy experimentation points to the importance of considering global dynamics when evaluating the EU's external goal attainment.

Looking at the second goal and the EU's initial desire to come up with a legally binding Paris Agreement, the EU eventually gave up its command-and-control approach. Learning from

Copenhagen, the EU adjusted its strategy by opening up to more flexible instrumentation and deliberation. Both of these goals may be discussed as instances of limited external EU effectiveness. This point of view, however, neglects the role that policy iteration and adjustment play in the policy process and progressing collectively in the global governance landscape.

From this preliminary analysis, we hypothesise that certain actorness dimensions more strongly impact policy effectiveness. In the examined case study, the external opportunity structure and what other states, such as the US and China, were doing mattered significantly for the EU's external effectiveness in advocating for a dynamic interpretation of the CBDR principle. Overcoming the prevailing global governance division through an enhanced CBDR mechanism was a front-and-centre concern for many countries and the moment was ripe for breaking with the historic pattern of a dichotomy between developed and developing countries. There was a general openness to discuss the matter, both in light of the bilateral agreement between China and the US and with regard to the engagement with developing country alliances such as AOSIS and small island developing states. To successfully set these up, the other actors must have had some positive perception (and recognition) of the EU as an actor to trust the process. Furthermore, in terms of persuasion strategies and setting up actor alliances, the EU's capability to reconvene different actors and articulate convincing strategies points to the importance of the autonomy dimension of the TRIGGER actorness model. Goals are always relational and what the EU does is directly connected with what other global governance actors are doing.

This preliminary observation on the importance of the external opportunity structure supports earlier findings by Carbone (2008), who investigated the link between EU actorness and aid effectiveness. Carbone deems two criteria as most important for actorness – cohesion and autonomy. Regarding the latter, the findings support the idea that the EU's ability to act independent of national interests and to be recognisable as a separate unit in the international area is a critical indicator of EU effectiveness regarding the dynamic interpretation of the CBDR principle.

When assessing the EU's external effectiveness, certain limitations stand out. First and most importantly, it is difficult to causally attribute successful goal attainment to the EU alone, as its goals cannot be dissected from the overall governance dynamics. Assessing the effectiveness of the EU as a sole actor is an inadequate reflection of the different interests and actor dynamics within the EU. The EU is not a monolithic actor, and there are ambivalent voices within EU institutions, which could not be adequately reflected as part of this study. Lastly, we recognise the difficulty of implicitly versus explicitly stated goals: some goals that were chosen for the analysis were only implicitly stated by the EU. This makes it more challenging in terms of finding evidence and data to measure goal attainment. The findings of this report must be considered exploratory research, from which preliminary hypotheses may be dissected and upon which further research can be built.

4.6 CONCLUSIONS

The EU is a relevant player in the global governance landscape and effectively pursues its goals. As part of the EU's external efforts and of reaching its goals, soft instruments predominate. When looking at the EU goals themselves, they are also the result of internal debates and competition within the EU, therefore pre-tested and signifying greater international compatibility. At the same time, the EU – like other actors in the global governance landscape – is not a monolithic actor but is highly dynamic, characterised by different actor constellations and interests, which ultimately can also enhance policy innovation. Precisely because of that, cohesion is not the only thing to be considered but actorness must be viewed as a whole.

The EU's desire to forge harder instruments in global governance becomes visible in Glasgow. The inability to use harder instruments externally has been argued as being a result of international law, and the limited legitimacy any actor has to impose rules and regulate other global governance actors. But what if the use of harder instruments has proven especially difficult less as a result of international law but more so because of EU internal contestation? Is it because the EU itself is not willing to propose harder instruments globally (as they may not stand up to the EU's internal scrutiny and debate) that these instruments are more unlikely? Because of the absence of harder instruments, the effectiveness of the EU is limited. However, once proposals for hard instruments have passed the internal debate within the EU and its diverging views, it is more likely that they will find acceptance in the international arena as well.

Still, the use of hard instruments (as they are understood here) and (implementation of domestic) climate change regulation are also constrained by WTO rules. Adjusting global trade governance and changing related institutions can both enhance the EU's external effectiveness and create (new) space for climate policy globally. Yet, what needs to be considered in this context is that the use of hard instruments may stand in conflict with CBDR principles. For instance, although environmental provisions in preferential trade barriers can increase green exports from developing countries and thereby have a positive effect (Brandi et al. 2020), when introduced for developing countries, they may violate the Paris Agreement as they run the risk of disproportionately burdening these countries and not adequately considering CBDR principles (Brandi 2019). Subsequently, related measures must pay attention to accompanying assistance for developing and least developed countries when designing policy responses.

5. Conclusion: Opportunities and challenges

What conclusions can be drawn from the insights presented on global governance, EU actorness and effectiveness in climate protection? The global governance of climate policy has developed since the early 1990s, both within the EU and globally. One of the key insights here is that climate policy has grown into an established policy field, with particular political relevance at the international level. Over the past three decades, a complex global governance architecture has evolved and climate policy has been mainstreamed into many different policy areas because of its cross-cutting nature. As a result, this complex architecture involves a variety of actors, interests, institutions and policy channels, and instruments at different levels

of governance. We have examined four distinct elements, which we consider core building blocks and underlying principles of the global governance architecture in the field of climate policy:

(i) the IPCC

(ii) the UNFCCC

(iii) the Kyoto Protocol

(iv) the Paris Agreement.

In addition to these building blocks, the first section also discussed the main principles of global governance, such as the polluter pays and common but differentiated responsibilities. The strong emphasis on these principles as part of the discourse on global climate governance is exemplary for the long-standing debates around the North-South divide and historic responsibility of industrialised countries to take active leadership on climate policy ambitions. At the same time, climate change has tested modern governments in their ability to address complex problems that exceed national borders, span across different governance levels and involve many hands. Amid ever-fluid boundaries of government, collective efforts have increased at the regional level.

The EU is one such example. The EU's efforts in climate policy amid the framework of core elements were discussed in the second section. We looked at formal EU actors and the main policymaking bodies – such as the Commission – and their sectoral organisation into different Directorates-General. We also looked at the main constellations of interests and conflicts between Member States, which emerged early on. Examples are state alliances of northern countries, such as Denmark, Germany, the Netherlands and Sweden, which often take a lead in the Council, or the Visegrád group, made up of Poland, Slovakia, Czechia and Hungary. In light of historic processes of European integration, this group has long been considered to play an active role in hampering EU climate policy ambition. The different backgrounds of EU Member States, their interests and degrees of industrialisation, as well as historic alliances, must be considered when reflecting upon the EU's climate policy. The limited ambition for EU climate policy of some countries is countered by a colourful landscape of environmental interest groups, organisations and NGOs. Environmental NGOs have actively pushed for EU leadership in climate policy and impacted on public debates about climate and energy issues.

In the third section, we assessed the 'actorness' of the EU, using the TRIGGER project's seven-dimension model of actorness to illuminate the ways in which the EU has been able to influence the global governance landscape. Our analysis indicates a steady increase in EU actorness since the late 1990s. This reflects the deepening of the EU's legal competence in terms of the growing number of primary and secondary laws, and increasing EU authority over its Member States, as captured by the authority dimension of actorness. This also includes a significant increase of formal capacity over time in terms of financial and human resources as well as knowledge and expertise related to climate policy. Climate mainstreaming has occurred in key policy areas, such as the common agricultural policy. At the same time, the Commission

has built considerable capacities for policy assessments. These aspects are all covered under the autonomy dimension.

The steady increase in EU actorness also reflects the external, and often positive, recognition of the EU by other global governance actors. Here however, it makes sense to delineate the analysis more clearly into different types of global governance actors. Aside from the perception of big players, such as China, India and the US, taking a look at the perception of developing countries and least developed countries, as well as NGOs, may offer a more differentiated view of this dimension. In terms of the EU's economic and political attractiveness, EU actorness has increased too through shaping market rules related to key technologies, such as ETS-based markets. When it comes to seizing opportunities and perceiving the necessity to act, the external opportunity structure has played quite an important role for EU actorness, with the EU acting as a real policy entrepreneur since Paris through the initiation of bottom-up efforts or using Covid-19 for policy linking by presenting Green Recovery Investment Plans.

This dimension nonetheless points directly at the relational aspects of EU actorness – what other actors do in the global governance landscape matters significantly for the opening and use of policy windows. Without these external 'forces' and favourable conditions, such as the bilateral China-US climate agreement ahead of the Paris summit, the EU might have been less likely to enhance its actorness in the global governance landscape.

Cohesion and credibility are the two dimensions where EU actorness is only moderate. Looking at cohesion, in our assessment, the EU's actorness even dipped from Paris to Glasgow – due to the continued opposition of Visegrád countries on important political issues, such as the EU climate law and agreement on the EU budget. When it comes to credibility, the EU's strategy of 'under-promising' and reaching policy targets through other means, or failing to comply with a 2°C pathway significantly affects how actors within the EU and global governance view the credibility of the EU. The increase of authority and growing policy capacity have positively influenced EU credibility. Yet, this dimension reveals the close interconnection of EU credibility and its policy effectiveness. The more successful the EU is in reaching its external and internal goals, the more likely it will be perceived as a credible actor.

In the fourth section, we examined the EU's external effectiveness – in other words, whether the EU is a relevant player in global governance and can leverage its actorness to achieve its (global) climate policy goals. Our analysis finds that the EU has significantly impacted global goals related to climate policy, such as (i) pushing the idea of a 2°C temperature target, (ii) setting binding, quantifiable emission targets as a design element for global governance, and (iii) promoting global acceptance of different responsibilities. Often, these goals are more implicitly stated. It became obvious that the EU's effectiveness is highly goal-specific and that goals are dynamic: they change and adjust over time. This implies that different actors as well as interests related to global goals must be coordinated and can change. For instance, the EU was relatively prominent in the initial phases of the 2°C warming target and a dominant actor in terms of framing, consolidating and diffusing the idea of this target. Later, the narrative

shifted to 1.5°C and the discourse was taken over by other actors, such as small island developing states. This points to the significance of considering the changing dynamics within the EU and the global governance landscape when designing strategies and setting policy goals.

We considered one case study, where we examined the EU's goal of promoting a dynamic interpretation of the CBDR principle during Paris, which commits all countries, but is differentiated according to capacity principles. The adjusted principle and dynamic interpretation were ultimately adopted as part of the Paris Agreement. The EU played a significant role in this by using a mix of policy instruments, that is, sermons and carrots – strategies of bridge-building, deliberation and persuasion, coupled with financial incentives. This resulted in the partial lifting of the long-standing distinction between Annex I and non-Annex I parties. However, it must also be said that attributing this only to the EU's external effectiveness is short-sighted. Again, what other actors in the global governance landscape do matters tremendously when evaluating the EU's effectiveness.

This concluding section is built on the preceding sections to highlight a number of factors that we believe are likely to determine the EU's actorness and effectiveness in the climate policy domain in the future. We elaborate these from the perspective of legitimacy. Legitimacy is a concept that sits at the nexus of the EU's efforts in the global governance landscape.

In all, we identify several broad areas on which we suggest the EU should focus if it wishes to enhance its actorness and effectiveness in the climate policy domain. These strategic priorities present the EU with both opportunities and challenges: procedures, participation, knowledge and representation of core EU values, coordination and policy ambivalence, burden sharing, the participation of civil society and local actors, monitoring and reporting mechanisms, and trade.

5.1 THE EU AS A LEGITIMATE ACTOR?

The EU is functionally important: climate policy is being implemented without distortions of competition in a common market, which in turn is embedded in the global economy. The EU is an essential level of governance for key policy areas: agriculture, innovation, subsidies, product regulation, trade, etc. Our analysis suggests that the EU as an actor has internal and external dimensions. In both respects, legitimacy is a central variable. How can legitimacy be created and thereby the EU's climate policy strengthened? We identify some priority areas along the following lines:

(1) procedures, in terms of democratic processes, rules, competition and institutionalisation;

(2) participation, to enhance the role of citizens and local actors;

(3) knowledge (and the capacities required for it);

(4) representation of values.

5.1.1 Procedures

Legitimacy is a prerequisite not only for actor quality, but also for the use of more far-reaching instruments that have a greater depth of impact. So far, there has been no success in establishing a global price for CO_2 or strict and demanding regulations internationally. On the contrary, in recent years, the global governance landscape and policy ambition has even been weakened by autocratic political leaders such as Donald Trump. Internally, the EU has several shortcomings: among others, the EU is not yet on a 2°C pathway, even if the Green Deal goes in that direction.

5.1.1.1 Enhanced role of trade and tougher instruments

Tougher instruments internally as well as externally (for the latter, so far mainly trade), but possibly also further, robust instruments: the International Court of Justice for climate issues or regulatory cooperation with mechanisms for levelling up. Attractiveness is likely to increase with an integration of climate issues into trade policies. Trade policy has the potential to significantly enhance the EU's ambition and leadership on climate policy. In this context, climate clubs provide one gateway for possibly more effective cooperation on climate matters (Hovi et al. 2014).

5.1.1.2 Improved coordination and policy ambivalence

With regard to the EU's cohesion, fragmentation between EU bodies such as the Commission and Parliament, between the different Directorates-General and among Member States persist. The previous section argued that different interests and preferences are not necessarily a bad thing, as they can foster dialogue and policy innovation. Even so, unabated, new divisions are looming. Against this background, meaningful mechanisms for coordination and deliberation could not just enhance the EU's autonomy further, but also strengthen the EU's policy coherence across different Directorates-General.

5.1.2 Participation of civil society and local actors in EU decision-making

Although the EU has significantly enhanced the participation of civil society actors, access to decision-making has been limited in some areas. New governance arrangements for the increased participation of civil society actors will be key for the EU to increase its autonomy in climate policy further. In line with improved procedures, creating opportunities for policy experimentation and policy co-creation with the public as part of current decision-making processes and EU institutions is one important avenue, which can enhance EU legitimacy. Further chances lie in intra-EU cooperation at the local level, with cities for instance. Here, the EU's recent engagement with the relatively new policy field of climate adaptation provides an opportunity for local cooperation and strategising. Carbon border tax adjustments might be another field where participatory processes could be enhanced.

5.1.3 Knowledge

The EU has continuously advanced its knowledge capacity, which is an important stepping stone for evidence-based policymaking. Yet, despite Member States doing better in reporting and providing more complete information about their climate policies, evidence of actually achieved emission cuts and the costs of policies are reported to be insufficient.

5.1.3.1 Improved monitoring and reporting mechanisms

The EU is strong in policy implementation and has a sharp focus on producing policy output. This is also valued by other state actors in the global governance landscape. The EU has a relatively stringent system of GHG reporting but could do better when it comes to monitoring climate policies (Schoenefeld et al. 2019). Improving coherent monitoring and reporting mechanisms is important and could likely enhance its credibility.

5.1.3.2 Evidence-based policymaking

Evidence also suggests that the EU is currently not on track with a 2°C pathway and that there is an ever-increasing necessity to act, especially regarding small island developing states and least developed countries. The role of the knowledge sector and importance of actors such as the EEA must be outlined in this context. Increasing the EU's knowledge base of and committing to using scientific evidence to inform decision-making will continue to be an important source of legitimacy in the future and necessary to improve EU policymaking regarding climate change.

5.1.4 Representation of values: Burden sharing

Differentiated burden sharing has played an important role as part of the global governance landscape and within the EU. Principles of burden sharing have continually advanced. Despite ongoing reforms of the Effort Sharing Regulation, political contestation remains on how to reach the targets of the Green Deal and how the burden will be allocated across Member States. Fair burden sharing is a crucial element for increasing the EU's climate policy ambition and having all of the EU pull in the same direction on the global governance stage. When expanding emissions trading to new sectors, such as transportation, buildings and agriculture, flexibility and fairness mechanisms play a critical role as do financial incentives for countries with differentiated capacities, like Visegrád countries. The Social Climate Fund of the Fit for 55 package is an important step in the right direction and will help to ensure a socially fair transition.

Bibliography

Adelle, Camilla, Marc Pallemaerts and David Baldock. 2008. 'Turning the EU Budget into an instrument to support the fight against climate change.' *Swedish Institute for European Policy Studies,* no. 4: 1-58. https://pure.uva.nl/ws/files/1076846/67238_301174.pdf.

Afionis, Stavros. 2011. 'The European Union as a negotiator in the international climate change regime.' *International Environmental Agreements: Politics, Law and Economics* 11, no. 4: 341-360. DOI: 10.1007/s10784-010-9135-5.

Aidt, Toke and Sandra Greiner. 2002. 'Sharing the climate policy burden in the EU.' *HWWA Discussion Paper*, no. 176. http://hdl.handle.net/10419/19338.

Albrecht, Johan and Bas Arts. 2005. 'Climate policy convergence in Europe: An assessment based on National Communications to the UNFCCC.' *Journal of European Public Policy* 12, no. 5: 885-902. DOI: 10.1080/13501760500161571.

Aldy, Joseph E. 2018. 'Policy surveillance: Its role in monitoring, reporting, evaluating and learning.' In *Governing climate change: polycentricity in action?* Andrew Jordan, Dave Huitema, Harro van Asselt, and Johanna Forster (eds,): 210–227. Cambridge: Cambridge University Press.

Astuccia, Evelyn. 2019. 'Can the EU lead the way in the fight against climate change?' Accessed 30 June 2021. https://www.eyes-on-europe.eu/can-the-eu-lead-the-way-in-the-fight-against-climate-change/.

Averchenkova, Alina and Samuela Bassi. 2016. *Beyond the targets: Assessing the political credibility of pledges for the Paris Agreement*. London: Centre for Climate Change Economics and Policy and Grantham Research Institute on Climate Change and the Environment.

Aykut, Stefan C., Edouard Morena, and Jean Foyer. (2021). 'Incantatory' governance: global climate politics' performative turn and its wider significance for global politics. *International Politics* 58: 519-540. https://doi.org/10.1057/s41311-020-00250-8

Bals, Christoph, Charlotte Cuntz, Oldag Caspar and Jan Burck. 2013. 'The end of EU climate leadership.' *German Watch Briefing Paper,* November. https://www.germanwatch.org/en/7563.

Barnes, Pamela M. 2012. 'The role of the Commission of the European Union: creating external coherence from internal diversity.' In *The European Union as a leader in international climate change politics,* Rüdiger Wurzel and James Cornelly (eds.), Chapter 3. London: Routledge. DOI: https://doi.org/10.4324/9780203839959.

BASIC expert group. 2011. 'Equitable access to sustainable development: Contribution to the body of scientific knowledge.' BASIC expert group: Beijing, Brasilia, Cape Town and Mumbai.

Bayer, Patrick and Michaël Aklin. 2020. 'The European Union emissions trading system reduced CO2 emissions despite low prices.' *Proceedings of the National Academy of Sciences* 117, no. 16: 8804-8812. DOI: https://doi.org/10.1073/pnas.1918128117.

Bäckstrand, Karin. 2008. 'Accountability of networked climate governance: The rise of transnational climate partnerships.' *Global environmental politics* 8, no. 3: 74-102. DOI: https://doi.org/10.1162/glep.2008.8.3.74.

Bäckstrand, Karin and Ole Elgström. 2013. 'The EU's role in climate change negotiations: from leader to 'leadiator'.' *Journal of European Public Policy* 20, no. 10: 1369-1386. DOI: 10.1080/13501763.2013.781781.

Bäckstrand, Karin, Jonathan W. Kuyper, Björn-Ola Linnér and Eva Lövbrand. 2017. 'Non-state actors in global climate governance: from Copenhagen to Paris and beyond.' *Environmental Politics* 26, no. 4: 561-579. DOI: 10.1080/09644016.2017.1327485.

Beck, Silke and Martin Mahony. 2018. 'The IPCC and the new map of science and politics.' *Wiley Interdisciplinary Reviews: Climate Change* 9.6, no. e547. DOI: https://doi.org/10.1002/wcc.547.

Becker, Peter. 2020. 'Die europäische Kohäsionspolitik und die Strukturfonds.' In *Handbuch Europäische Union,* Peter Becker and Barbara Lippert (eds.): 869-887. Wiesbaden: Springer. DOI: https://doi.org/10.1007/978-3-658-17409-5_34.

Belis, David, Paul Joffe, Bart Kerremans and Ye Qi. 2015. 'China, the United States and the European Union: Multiple bilateralism and prospects for a new climate change diplomacy.' *Carbon & Climate Law Review 9, no.* 3: 203-218.

Benson, David and Andrew Jordan. 2010. 'The expansion of EU climate policy and its future under the Lisbon Treaty.' *St Antony's International Review 5, no.* 2: 121-140. http://www.jstor.org/stable/26227057.

Betsill, Michele, Navroz K. Dubash, Matthew Paterson, Harro van Asselt, Antto Vihma and Harald Winkler. 2015. 'Building productive links between the UNFCCC and the broader global climate governance landscape.' *Global Environmental Politics* 15, no. 2: 1-10. DOI: doi:10.1162/GLEP_a_00294.

Biedermann, Reinhard. 2020. 'Adapting to the changing Arctic? The European Union, the Nordics, and the Barents Governance Mosaic.' *Journal of Contemporary European Studies* 28, no. 2: 167-181. DOI: https://doi.org/10.1080/14782804.2019.1693352.

Biermann, Frank, Philipp Pattberg, Harro Van Asselt and Fariborz Zelli. 2009. 'The fragmentation of global governance architectures: A framework for analysis.' *Global environmental politics 9*, no. 4: 14-40. DOI: 10.1162/glep.2009.9.4.14.

Biermann, Frank, Fariborz Zelli, Philipp Pattberg and Harro van Assel. 2010. 'The architecture of global climate governance: Setting the stage.' In *Global climate governance beyond 2012*, *architecture, agency and adaptation:* 15-24. Cambridge: Cambridge University Press.

Biermann, Frank and Raykhun Kim (eds.) 2020. *Architectures of earth system governance: Institutional complexity and structural transformation*. Cambridge: Cambridge University Press. doi:10.1017/9781108784641.

Blanchard, Odile. 2003. 'The Bush Administration climate proposal: rhetoric and reality.' Le Centre français sur les États-Unis The French Center of the United States (CFE), Policy Paper. Accessed 21 July 2021 at: https://www.osti.gov/etdeweb/servlets/purl/20354385.

Bodansky, Daniel. 2010. 'The Copenhagen conference: A post-mortem.' *American Journal of International Law* 104, no. 2: 232-240. https://www.jstor.org/stable/10.5305/amerjintelaw.104.2.0230.

Bodansky, Daniel. 2016. 'The legal character of the Paris Agreement.' *Review of European, Comparative & International Environmental Law* 25, no. 2: 142–50. DOI: 10.1111/reel.12154.

Boffey, Daniel and Arthur Neslen. 2017. 'China and EU strengthen promise to Paris deal with US poised to step away.' *The Guardian* 13 May 2017. https://www.theguardian.com/environment/2017/may/31/china-eu-climate-lead-paris-agreement.

Böhringer, Christoph. 2003. 'The Kyoto Protocol: A review and perspectives.' *ZEW Discussion Papers*, no. 03-61.

Böhringer, Christoph. 2014. 'Two decades of European climate policy: A critical appraisal.' *Review of Environmental Economics and Policy* 8, no. 1: 1-17. DOI: 10.1093/reep/ret018.

Bosch, Peter. 2002. 'The European Environment Agency focuses on EU-policy in its approach to sustainable development indicators.' *Statistical Journal of the United Nations Economic Commission for Europe* 19, no. 1-2: 5-18.

Bossom, Elin Lerum. 2015. *National climate policy: A multi-field approach.* New York and London: Routledge.

Brandi, Clara, Jakob Schwab, Axel Berger and Jean-Frédéric Morin. 2020. 'Do environmental provisions in trade agreements make exports from developing countries greener?' *World Development* 129 (May 2020), article 104899. DOI: 10.1016/j.worlddev.2020.104899.

Brandi, Clara. 2019. 'A European border carbon tax – promises and pitfalls of trade measures as a leverage for climate protection.' German Institute for Development Policy (die) blog, published November 2019.

Briassoulis, Helen. 2004. 'Policy integration for complex policy problems: What, why and how.' *Berlin Conference Greening of Policies: Interlinkages and Policy Integration*: 1-30. http://www.geocities.ws/policy_making/en/publicpolicy/environmental_policy.pdf.

Brunner, Steffen, Christian Flachsland and Robert Marschinski. 2012. 'Credible commitment in carbon policy.' *Climate Policy* 12, no. 2: 255-271. DOI: https://doi.org/10.1080/14693062.2011.582327.

Bulkeley, Harriet, Liliana B. Andonova, Michele M. Betsill, Daniel Compagnon, Thomas Hale, Matthew J. Hoffmann, Peter Newell, Matthew Paterson, Charles Roger and Stacy D. VanDeveer. 2014. 'Introducing Transnational Climate Change Governance.' In *Transnational climate change governance*, 1-16. Cambridge: Cambridge University Press. DOI: doi:10.1017/CBO9781107706033.001.

Burns, Charlotte and Neil Carter. 2012. 'Environmental Policy.' In *The Oxford Handbook of the European Union*, Erik Jones, Anand Menon and Stephen Weatherhill (eds.): 511-525. Oxford: Oxford University Press.

Burns, Charlotte, Neil Carter and Nicholas Worsfold. 2012. 'Enlargement and the environment: the changing behaviour of the European Parliament.' *JCMS: Journal of Common Market Studies* 50, no.1: 54-70. DOI: https://doi.org/10.1111/j.1468-5965.2011.02212.x.

Busch, Timo and Lena Judick. 2021. 'Climate change—that is not real! A comparative analysis of climate-sceptic think tanks in the USA and Germany.' *Climatic Change* 164**,** no. 18: 1-23. DOI: https://doi.org/10.1007/s10584-021-02962-z.

Calliari, Elisa, Swenja Surminski and Jaroslav Mysiak. 2019. 'The politics of (and behind) the UNFCCC's loss and damage mechanism. In *Loss and damage from climate change,* Reinhard Mechler, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski and Jo Anne Linnerooth-Bayer (eds.). 155-178. Cham: Springer. DOI: https://doi.org/10.1007/978-3-319-72026-5.

Candel, Jeroen JL and Robbert Biesbroek. 2016. 'Toward a processual understanding of policy integration.' *Policy Sciences* 49, no. 3: 211-231. DOI: 10.1007/s11077-016-9248-y.

Candel, Jeroen. 2021. 'The expediency of policy integration.' *Policy Studies* 42, no. 4: 346-361. DOI: https://doi.org/10.1080/01442872.2019.1634191.

CAN Europe. 2015. 'Gigatonne gap in the EU pledge for Paris Climate Summit.' Accessed 30 June 2021. https://caneurope.org/content/uploads/2015/09/CAN_Europe_Gigatonne_gap_15_09_2015.pdf.

CAN Europe. 2016. 'Post-Paris EU climate policy briefings.' Accessed 30 June 2021. http://www.caneurope.org/content/uploads/2016/05/Post-Paris-briefing-paper-LULUCF.pdf.

CAN Europe. 2017. 'EU Budget. Delivering on climate goals.' Accessed 5 November 2020. http://www.caneurope.org/finance/eu-budget.

CAN Europe. 2019. 'EU countries under pressure to fast-track agreement on Green Deal hallmark ahead of COP26'. Accessed 3 March 2020. https://caneurope.org/eu-countries-under-pressure-to-fast-track-agreement-on-green-deal-hallmark-ahead-of-cop-26/.

CAN Europe. 2020. 'EU recovery plan allows continued support to climate polluting fossil fuels, lifting climate spending targets.' Accessed 20 June 2021. https://caneurope.org/eu-recovery-plan-allows-continued-support-to-climate-polluting-fossil-fuels-lifting-climate-spending-targets/.

Carbone, Maurizio. 2008. 'Better aid, less ownership: multi-annual programming and the EU's development strategies in Africa.' *Journal of International Development: The Journal of the Development Studies Association* 20, no. 2*:* 218-229. DOI: 10.1002/jid.1452.

Carlarne, Cinnamon P. 2010. *Climate change law and policy. EU and US perspectives.* Oxford: Oxford University Press.

CAT. 2015. 'Climate action tracker'. Accessed 30 June 2021. https://climateactiontracker.org/media/documents/2018/4/CAT_2015-06-07_CountryAssessment_EU.pdf.

Cejudo, Guillermo M. and Cynthia L. Michel. 2017. 'Addressing fragmented government action: Coordination, coherence, and integration.' *Policy Sciences* 50, no. 4: 745-767. DOI: 10.1007/s11077-017-9281-5.

Chabanet, Didier and Alexander H. Trechsel. 2011. 'EU Member states' consultation with civil society on European policy matters.' *EUDO Report* 2011, no. 4*:* 1-220. http://cadmus.eui.eu/bitstream/handle/1814/19357/EUDO_Report_2011_04.pdf?sequence=1.

Chasek, Pamela S. 2001. *Earth negotiations: Analyzing thirty years of environmental diplomacy.* Tokyo: United Nations University Press.

Charveriat, Céline. 2017. 'Can EU-China cooperation save the Paris Agreement?'. Accessed 30 June 2021. https://www.friendsofeurope.org/insights/can-eu-china-cooperation-save-the-paris-agreement/.

Climate Policy Hub. 2015. 'European climate policy – History and state of play.' Accessed 21 June 2021 at: https://climatepolicyinfohub.eu/node/17/pdf.

Coen, David, Julia Kreienkamp and Tom Pegram. 2020. Global climate governance. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/9781108973250.

Convery, Frank J. 2009. 'Origins and development of the EU ETS.' *Environ Resource Econ*, no. 43:3 91-412. DOI 10.1007/s10640-009-9275-7

Corbera, Esteve, Laura Calvet-Mir, Hannah Hughes and Matthew Paterson. 2016. 'Patterns of authorship in the IPCC Working Group III report.' *Nature Climate Change* 6, no. 1: 94-99. DOI: https://doi.org/10.1038/nclimate2782.

Craw, Mark. 2020. 'EU-China climate engagement: Policy drivers, synergies and gaps for accelerating transition towards carbon neutrality.' *China Dialogue Trust,* November: 4-16. https://cdn.chinadialogue.net/content/uploads/2020/10/27142356/EU-China-climate-engagement.pdf.

Damro, Chad and Pilar Luaces Méndez. 2003. 'Emissions trading at Kyoto: from EU resistance to Union innovation.' *Environmental Politics* 12, no. 2: 71-94. DOI: 10.1080/0964401041233130819 4.

Damro, Chad. 2006. 'EU-UN environmental relations: Shared competence and effective multilateralism.' In *The European Union at the United Nation*s, Katie Verlin Laatikainen and Karen E. Smith (eds.): 175-192. London: Palgrave Macmillan. DOI: https://doi.org/10.1057/9780230503731_9.

Damro, Chad David, Iain Hardie and Donald MacKenzie. 2008. 'The EU and climate change policy: Law, politics and prominence at different levels.' *Journal of Contemporary European Research* 4, no. 3: 179-192. http://www.jcer.net/ojs.index.php/jcer/article/view/110/103.

Delbeke, Jos and Peter Vis. 2016. *EU Climate Policy Explained.* Oxon: Routledge. https://ec.europa.eu/clima/sites/clima/files/eu_climate_policy_explained_en.pdf.

Derobert, Nicola. 2019. 'EU countries under pressure to fast-track agreement on Green Deal hallmark ahead of COP26.' Accessed 30 June 2021. http://www.old.caneurope.org/publications/press-releases/1860-eu-countries-under-pressure-to-fast-track-agreement-on-green-deal-hallmark-ahead-of-cop-26.

Delbeke, Jos, Artur Runge-Metzger, Yvon Slingenberg and Jake Werksman. 2019. 'The Paris Agreement.' In *Towards a Climate-Neutral Europe,* Jos Delbeke and Peter Vis (eds.): 24-45. London and New York: Routledge.

Dimitrov, Radoslav S. 2016. 'The Paris agreement on climate change: Behind closed doors.' *Global Environmental Politics* 16, no. 3: 1-11. DOI: 10.1162/GLEP_a_0036.

Dimitrov, Radoslav, Jon Hovi, Detlef F. Spritz, Håkon Sæle and Arild Underdal. 2019. 'Institutional and environmental effectiveness: Will the Paris Agreement work?.' Wiley Interdisciplinary Reviews: Climate Change 10, no. 4: e583. DOI: 10.1002/wcc.583.

Delbeke, Jos and Peter Vis. 2016. *EU climate policy explained.* London and New York: Routledge.

Delbeke, Jos and Peter Vis. 2020. *Towards a climate-neutral Europe: Curbing the trend*. London and New York: Routledge.

Delreux, Tom. 2014. 'EU actorness, cohesiveness and effectiveness in environmental affairs.' *Journal of European Public Policy* 21, no. 7: 1017-1032, DOI: 10.1080/13501763.2014.912250.

Delreux, Tom and Frauke Ohler. 2019. 'Climate policy in European Union politics.' Oxford Research Encyclopedia of Politics. DOI: http://dx.doi.org/10.1093/acrefore/9780190228637.013.1097.

Divjak, Tina and Goran Forbici. 2018. *The future evolution of civil society in the European Union by 2030*. Brussels: EESC. https://www.eesc.europa.eu/sites/default/files/files/the_future_evolution_of_civil_society_in_the_eu_by_2030.pdf.

Donnerer, David. 2020. 'The European climate law: is it enough to get to climate neutrality? Assessed 24 June 2021. https://energy-cities.eu/the-european-climate-law-is-it-enough-to-get-to-climate-neutrality/.

Dorsch, Marcel J. and Christian Flachsland. 2017. 'A polycentric approach to global climate governance.' *Global Environmental Politics* 17, no. 2: 45-64. DOI: https://doi.org/10.1162/GLEP_a_00400.

Dröge, Susanne. 2020. 'The EU's CO2 border adjustment: Climate or fiscal policy?.' Point of View published by the German Institute for International and Security Affairs (SWP). Last accessed 21 June 2021 at: https://www.swp-berlin.org/en/publication/the-eus-co2-border-adjustment-climate-or-fiscal-policy.

Dunlap, Riley E. and Peter J. Jacques. 2013. 'Climate change denial books and conservative think tanks: Exploring the connection.' *American Behavioral Scientist* 57, no. 6: 699-731. DOI: 10.1177/0002764213477096.

Duwe, Matthias, Nils Meyer-Ohlendorf and Katharina Umpfenbach. 2017. 'Governance of the Energy Union. Assessment of the Commission proposal for a governance regulation.' *Ecologic Institute* February. https://www.ecologic.eu/sites/files/publication/2017/ecologic_institute_2017_assessment_of_governance_regulation.pdf.

Duwe, Matthias and Mark Evans. 2020. 'Climate laws in Europe. Good practices in net-zero management.' *Ecologic Working Paper* February, 2020. https://europeanclimate.org/wp-content/uploads/2020/02/04-02-2020-climate-laws-in-europe-full-report.pdf.

European Commission (EC). 1996. '1939TH Council Meeting – Environment - Brussels, 25 and 26 June 1996 – President: Edo Ronchi, Minister for the Environment of the Italian Republic.'

PRES/96/188. Accessed 14 July 2021. https://ec.europa.eu/commission/presscorner/detail/en/PRES_96_188

European Commission (EC). 2004. 'Kyoto Protocol.' Accessed 30 June 2021. https://ec.europa.eu/commission/presscorner/detail/en/MEMO_04_43.

European Commission (EC). 2007. 'Highlights of the JRC 50 years in science'. Accessed 30 June 2021. https://ec.europa.eu/jrc/sites/jrcsh/files/jrc_50_years_brochure_en.pdf.

European Commission (EC). 2010. 'EU budget 2010. Paving the way for economic recovery.'

European Commission (EC). 2013. 'EU over-achieved first Kyoto emissions target, on track to meet 2020 objective.' Accessed 30 June 2021. https://ec.europa.eu/clima/news/articles/news_2013100901_en.

European Commission (EC). 2015. 'EU ETS Handbook.' Accessed 30 June 2021. https://ec.europa.eu/clima/sites/clima/files/docs/ets_handbook_en.pdf.

European Commission (EC). 2015. State of the Union 2015. Last accessed 22 August 2021 at: https://ec.europa.eu/info/priorities/state-union-speeches/state-union-2015_en.

European Commission (EC). 2016. 'COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL The Road from Paris: assessing the implications of the Paris Agreement and accompanying the proposal for a Council decision on the signing, on behalf of the European Union, of the Paris agreement adopted under the United Nations Framework Convention on Climate Change.' COM(2016)110 final. Accessed 14 July 2021. https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-110-EN-F1-1.PDF.

European Commission (EC). 2016a. 'Paris Agreement to enter into force as EU agrees ratification.' Accessed 20 November 2020. https://ec.europa.eu/commission/presscorner/detail/en/IP_16_3284

European Commission (EC). 2016b. 'Supporting study for the evaluation of Decision No 406/2009/EC (Effort Sharing Decision) Final report.' Published by the European Union, Directorate-General for Climate Action Unit CLIMA C.2, Governance and Effort Sharing European Commission.

European Commission (EC) 2018a. 'UN climate talks: EU plays instrumental role in making the Paris Agreement operational.' Accessed 20 November 2020. https://ec.europa.eu/clima/news/un-climate-talks-eu-plays-instrumental-role-making-paris-agreement-operational_en.

European Commission (EC). 2018b. 'Statement of Estimates of The European Commission for the financial year.' Accessed 14 July 2020. https://ec.europa.eu/budget/library/biblio/documents/2018/statement-of-estimates-of-the-european-commission.pdf

European Commission (EC). 2018c. Memorandum of understanding to enhance cooperation on emissions trading between the European Commission and the Ministry of the Ecology and the Environment of the People's Republic of China. European Commission. Accessed

7 February 2021. https://ec.europa.eu/clima/sites/clima/files/news/20180713_mou_en.pdf.

European Commission (EC). (2019). 'Press Release: Agreement on EU budget for 2020: Tackling climate change and delivering on other EU priorities.' Accessed 14 July 2020. https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6280

European Commission (EC). 2019a. 'European Green Deal.' Accessed 28 February 2020. https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf.

European Commission (EC 2019b). 'The Evolution of the EU budget.' Accessed 28 February 2020. https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/636475/IPOL_IDA(2019)636475_EN.pdf

European Commission (EC). 2020a. 'Fact Check on the EU Budget.' Accessed 6 November 2020. https://ec.europa.eu/info/strategy/eu-budget/transparency/fact-check_en.

European Commission (EC). 2020b. 'Inception impact assessment. Ref. Ares 6081605 - 29/10/2020. Last accessed 3 November 2020, at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12656-Updating-Member-State-emissions-reduction-targets-Effort-Sharing-Regulation-in-line-with-the-2030-climate-target-pla.

European Commission (EC). 2020c. 'HR key figures staff members'. Last accessed 4 February 2020, at: https://ec.europa.eu/info/sites/info/files/european-commission-hr_key_figures_2020_en.pdf

European Commission (EC). 2020d. 'The EU's track record on climate action.' Accessed 30 June 2021. https://ec.europa.eu/commission/presscorner/detail/en/fs_19_6720.

European Commission (EC). 2020e. 'Kick-starting the journey towards a climate-neutral Europe by 2050.' Accessed 30 June 2021. https://ec.europa.eu/clima/sites/clima/files/strategies/progress/docs/com_2020_777_en.pdf.

European Commission, Secretary General (EC SG). 2020. REPORT FROM THE COMMISSION Monitoring the application of European Union law 2019 Annual Report. COM/2020/350 final. Report published 31/07/2020.

European Council (Council). 2009. 'Council Conclusions on EU position for the Copenhagen Climate Conference (7-18 December 2009).' Accessed 14 July 2021 https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/envir/110634.pdf.

European Council (Council). 2015. 'EU position for the UN climate change conference in Paris: Council conclusions.' Accessed 14 July 2021. https://www.consilium.europa.eu/en/press/press-releases/2015/09/18/counclusions-un-climate-change-conference-paris-2015/.

European Council (Council). 2020. 'Informal meeting of environment ministers, 30 September - 1 October 2020.' Accessed 14 July 2021. https://www.consilium.europa.eu/en/meetings/env/2020/09/30-01/.

European Council (Council). 2021. 'Draft Council conclusions on Climate and Energy Diplomacy – Delivering on the external dimension of the European Green Deal.' 5159/21. Accessed

14 July 2021. https://www.euractiv.com/wp-content/uploads/sites/2/2021/01/FAC_draftJan2021.pdf.

European Environmental Agency (EEA). 2010. 'Recession accelerates the decline in EU greenhouse gas emissions.' Accessed 30 June 2021. https://www.eea.europa.eu/highlights/recession-accelerates-the-decline-in.

European Environmental Agency (EEA). 2017. 'Greenhouse gas emissions from transport in Europe.' Accessed 30 June 2021.

European Environment Agency (EEA).2019a. 'EU Member States add more climate policies, better evidence on costs and effectiveness needed.' EEA News published 27 Nov 2019. Accessed 14 July 2021. https://www.eea.europa.eu/highlights/eu-member-states-add-more.

European Environment Agency (EEA). 2019b. 'More national climate policies expected, but how effective are the existing ones?' *EEA Briefing published 27 Nov 2019*. Accessed 14 July 2021. https://www.eea.europa.eu/themes/climate/national-policies-and-measures/more-national-climate-policies-expected. https://www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-greenhouse-gases-7/assessment.

European Environmental Agency (EEA). 2020. 'European Union partners.' Accessed 5 November 2020. https://www.eea.europa.eu/about-us/who/key-partners.

European Environmental Agency (EEA). 'Celebrating Europe and its environment.' Accessed 30 June 2021. https://www.eea.europa.eu/environmental-time-line.

ENB. 2019. 'Summary of the Chile/Madrid climate change conference: 2-15 December 2019.' *Earth Negotiations Bulletin (ENB)* 12, no. 775. http://enb.iisd.org/vol12/enb12775e.html.

European Council (EUCO). 2020. 'Special meeting of the European Council (17, 18, 19, 20 and 21 July 2020) – Conclusions.' Accessed 5 November 2020. https://data.consilium.europa.eu/doc/document/ST-10-2020-INIT/en/pdf.

Elgström, Ole. 2015. 'Legitimacy, credibility and coherence – Perceptions of EU roles in global climate change negotiations.' *Robert Schuman Centre for Advanced Studies Research Paper,* no. 6.

European Social Survey (ESS). 2018. 'European attitudes to climate change and energy: Topline results from 8ound 8 of the European Social Survey.' Accessed 30 June 2021. https://www.europeansocialsurvey.org/docs/findings/ESS8_toplines_issue_9_climatechange.pdf

EU. 2014. 'How do Member States handle contributions to the EU budget in their national budgets?'. Accessed 30 June 2021. https://www.ceps.eu/wp-content/uploads/2014/10/Report.pdf

EU LV. 2015. 'Submission by Latvia and the European Commission on behalf of the European Union and its Member States.' Riga, 6 March 2015. https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Italy%20First/LV-03-06-EU%20INDC.pdf.

Euractiv. 2020. 'EU-China cooperation on climate change.' Accessed 30 June 2021. https://www.euractiv.com/section/eu-china/special_report/eu-china-cooperation-on-climate-green-engines-of-global-economic-recovery/.

European Parliament (EP). 2020a. 'Parliamentary questions.' Accessed 20 June 2021. https://www.europarl.europa.eu/doceo/document/P-9-2020-000530_EN.html

European Parliament (EP). 2020b. 'Documenting climate mainstreaming in the EU budget.' Accessed 20 June 2021. https://www.europarl.europa.eu/RegData/etudes/STUD/2020/654166/IPOL_STU(2020)654166_EN.pdf

Evans, Simon. 2015. 'How ambitious is the EU's offer to the Paris climate change talks?' Accessed 30 June 2021. https://www.carbonbrief.org/how-ambitious-is-the-eus-offer-to-the-paris-climate-change-talks.

Falkner, Robert. 2015. 'Towards minilateralism.' *Nature Climate Change* 5, no. 9: 805-806. DOI: https://doi.org/10.1038/nclimate2767.

Falkner, Robert. 2016. 'A minilateral solution for global climate change? On bargaining efficiency, club benefits, and international legitimacy.' *Perspectives on Politics* 14, no. 1: 87-101. DOI: 10.1017/S1537592715003242.

Fischer, Severin and Oliver Geden. 2020. 'Die europäische Energie-und Klimapolitik.' In Handbuch Europäische Union, 887-905. Wiesbaden: Springer VS.

Franchino, Fabio. 2007. *The powers of the Union: Delegation in the EU*. Cambridge: Cambridge University Press.

Fransen, Taryn and Jenna Blumenthal. 2015. 'EU Announces its new climate action commitment (INDC)'. Accessed 30 June 2021. https://www.wri.org/insights/eu-announces-its-new-climate-action-commitment-indc.

Gardiner, Stephen, Simon Caney, Dale Jamieson, Henry Shue and Rajendra Kumar Pachauri. 2010. *Climate ethics the essential reader.* Oxford University Press.

Gardiner, Stephen. 2011. *A perfect moral storm: The ethical tragedy of climate change*. New York: Oxford University Press. DOI: 10.1093/acprof:oso/9780195379440.001.0001.

Geden, Oliver. 2013. 'Modifying the 2 C target: Climate policy objectives in the contested terrain of scientific policy advice, political preferences, and rising emissions.' SWP Research Paper 5. Stiftung Wissenschaft und Politik.

Geden, Oliver and Silke Beck. 2014. 'Renegotiating the global climate stabilization target.' *Nature Climate Change 4*, no. 9: 747-748. https://www.nature.com/articles/nclimate2309.

Gippner, Olivia. 2014. 'Framing it right: China–EU relations and patterns of interaction on climate change.' *Chinese Journal of Urban and Environmental Studies* 2.01: 1450003. DOI: 10.1142/S2345748114500031.

Gippner, Olivia. 2015. 'Paving the road to Paris? What the EU can do to facilitate a political climate change deal.' *LSE Ideas, Strategic Update.* 15.5.

Golberg Elizabeth. 2019. 'Regulatory cooperation – A reality check.' *Harvard Kennedy School, M-RCBG Associate Working Paper Series,* no. 115. https://www.hks.harvard.edu/sites/default/files/centers/mrcbg/img/115_final.pdf.

Grant, Wyn. 2011. '12. Business. The elephant in the room?' In *The European Union as a Leader in International Climate Change Politics,* Rüdiger Wurzel and James Connelly (eds.), 2012/11. New York: Routledge.

Groen, Lisanne and Niemann, Arne 2011. 'EU actorness and effectiveness under political pressure at the Copenhagen climate change negotiations.' Paper prepared for the Twelfth European Union Studies Association Conference. Boston, Massachusetts, March 3-5, 2011. http://aei.pitt.edu/52840/1/GROEN.pdf.

Groen, Lisanne and Arne Niemann. (2012a). 'EU actorness and effectiveness under political pressure at the Copenhagen climate change negotiations.' Mainz Papers on International and European Politics (MPIEP). Accessed 14 July 2020. https://internationale.politik.uni-mainz.de/files/2018/12/Groen_Niemann_2012.pdf

Groen, Lisanne and Arne Niemann. (2012b) 'Challenges in EU external climate change policymaking in the early post-Lisbon era: the UNFCCC Copenhagen negotiations' in: Cardwell, P. (ed.), *EU external relations law and policy in the post-Lisbon era*. The Hague: T.M.C. Asser Press: 315-334.

Groen, Lisanne, Arne Niemann and Sebastian Oberthür. 2012c. 'The EU as a global leader? The Copenhagen and Cancún UN climate change negotiations.' *Journal of Contemporary European Research* 8, no. 2: 173-191.

Groen, Lisanne and Arne Niemann. 2013. 'The European Union at the Copenhagen climate negotiations: A case of contested EU actorness and effectiveness.' *International Relations* 27, no. 3: 308–24. DOI: 10.1177/0047117813497302.

Gupta, Joyeeta. 2010. 'A history of international climate change policy.' *Wiley Interdisciplinary Reviews: Climate Change* 1, no- 5: 636-653. https://doi.org/10.1002/wcc.67.

Gupta, Joyeeta. 2014. *The history of global climate governance*. New York: Cambridge University Press.

Guerra, Flávia Dias, Oscar Widerberg, Marija Isailovic and Philipp Pattberg. 2015. 'Mapping the institutional architecture of global climate change governance.' *Institute for Environmental Studies* R15/09. DOI: 10.13140/RG.2.1.1052.8489.

Guzman, Sandra. 2016. 'What is mainstreaming climate change in theory?'. Accessed 30 June 2021. https://refubium.fu-berlin.de/handle/fub188/19025.

Gulbrandsen, Lars and Jørgen Wettestand. 2018. *The evolution of carbon markets design and diffusion*. Routledge.

Groenleer, Martijn L.P. and Louise G. Van Schaik. 2007. 'United we stand? The European Union's international actorness in the cases of the International Criminal Court and the Kyoto Protocol.' *JCMS: Journal of Common Market Studies* 45, no. 5: 969-998. DOI: https://doi.org/10.1111/j.1468-5965.2007.00756.x.

Hare, Bill and Malte Meinshausen. 2008. 'The EU, the IPCC and 2oC.' *The Institute for European Studies.*

Harris, Paul G. 1999. 'Common but differentiated responsibility: The Kyoto protocol and United States policy.' *New York University environmental law journal,* no. 7. https://www.nyuelj.org/wp-content/uploads/2019/07/Harris_Common_But_DIfferentiated_Responsibility.pdf.

Harris, Paul G. 2007. Europe and global climate change: Politics, foreign policy and regional cooperation. Cheltenham and Northampton: Edward Elgar Publishing.

Harris, Paul G. 2007b. 'Collective action on climate change: The logic of regime failure,' *Natural resources journal*, no. 47. https://digitalrepository.unm.edu/nrj/vol47/iss1/6.

Harstad, BÂrd. 2020. 'Pledge-and-review bargaining: From Kyoto to Paris.' Accessed 30 June 2021. https://www.sv.uio.no/econ/personer/vit/bardh/dokumenter/ndc.pdf.

Heidener, Uldall and Thomas James. 2011. 'As time goes by: EU climate change actorness from Rio to Copenhagen.' *Bruges Regional Integration & Global Governance Paper,* no. 3. http://aei.pitt.edu/33543/.

Heidbreder, Eva G. 2012. 'Civil society participation in EU governance.' *Living Reviews in European Governance* 7, no. 2. http://edoc.vifapol.de/opus/volltexte/2014/5276/pdf/lreg_2012_2Color.pdf.

Hirsch, Thomas. 2016. 'The role of alliances in international climate policy after Paris.' *Friedrich-Ebert-Stiftung, Global Policy and Development*. https://library.fes.de/pdf-files/iez/12689.pdf.

Hoffmann, Matthew J. 2011. *Climate governance at the crossroads. Experimenting with a global response after Kyoto.* Cary: Oxford University Press.

Ho-Lem, Claudia, Hisham Zerriffi and Milind Kandlikar. 2011. 'Who participates in the Intergovernmental Panel on Climate Change and why: A quantitative assessment of the national representation of authors in the Intergovernmental Panel on Climate Change.' *Global Environmental Change* 21, no. 4: 1308-1317. DOI: https://doi.org/10.1016/j.gloenvcha.2011.05.007.

Högl, Maximilian. 2018. 'Enabling factors for cooperation in the climate negotiations – a comparative analysis of Copenhagen 2009 and Paris 2015.' *Discussion Paper / Deutsches Institut für Entwicklungspolitik,* no. 14. https://www.die-gdi.de/uploads/media/DP_14.2018.pdf.

Hovi, Jon, Detlef F. Sprinz, Håkon Sælen, and Arild Underdal. 2014. 'The club approach: A gateway to effective climate cooperation?'. Working Paper, German Institute for Economic Research, DIW Berlin.

Hsu, Angel and Ross Rauber. 2021. 'Diverse climate actors show limited coordination in a large-scale text analysis of strategy documents.' *Communications Earth & Environment* 2, no. 30. https://doi.org/10.1038/s43247-021-00098-7

Hustedt, Thurid and Markus Seyfried. 2017. 'Inside the EU Commission: Evidence on the perceived relevance of the Secretariat General in climate policymaking.' *Journal of Common Market Studies*, 56, no. 2: 368-384. DOI: https://doi.org/10.1111/jcms.12605.

Incropera, Frank P. 2016. *Climate change: A wicked problem: Complexity and uncertainty at the intersection of science, economics, politics, and human behavior.* New York: Cambridge University Press.

IPCC. 2014. 'Climate change 2014: Synthesis report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.' Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.), IPCC, Geneva, Switzerland: 151.

IPCC. 2018.. 'Summary for policymakers.' In: *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*. Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.). World Meteorological Organization, Geneva, Switzerland: 32.

IPCC. 2020. 'The IPCC and the sixth assessment cycle.' Accessed 30 June 2021. https://www.ipcc.ch/site/assets/uploads/2020/05/2020-AC6_en.pdf.

Jacob, Klaus and Axel Volkery. 2005. 'Europäische Rechtsetzung: Die Auseinandersetzungen zur Europäischen Chemikalienpolitik REACH und die Rolle nationaler Regierungen und Akteure im Policy-Prozess.' *Technikfolgenabschätzung – Theorie und Praxis* 14, no. 1: 69-77.

Jankowska, Karolina. 2011. 'Poland's climate change policy struggle: greening the East?' In *The European Union as a leader in international climate change politics,* Rüdiger Wurzel and James Connelly (eds.), 2012/11. New York: Routledge.

Jordan, Andrew. 2002. *The Europeanization of British environmental policy. A departmental perspective*. New York: Palgrave Macmillan.

Jordan, Andrew (2005), 'Policy convergence: a passing fad or a new integrating focus in European Union studies?' *Journal of European Public Policy* 12, no. 5: 944-953. DOI: https://doi.org/10.1080/13501760500161647.

Jordan, Andrew, Harro van Asselt, Frans Berkhout, Dave Huitema and Tim Rayner. 2012. 'Understanding the paradoxes of multilevel governing: Climate change policy in the European Union.' *Global Environmental Politics* 12, no. 2: 43-66. DOI: 10.1162/GLEP_a_00108.

Jordan, Andrew, Viviane Gravey, and Camilla Adelle. 2021. 'EU environmental policy contexts, actors and policy dynamics.' In *Environmental Policy in the EU Actors, Institutions and Processes,* Jordan and Gravey (eds/), Routledge, 2021.

Joshi, Shangrila. 2021. 'Climate change justice and global resource commons: Local and global postcolonial political ecologies.' Routledge Studies in Environmental Justice, 2021.

Keohane, Robert O. and Michael Oppenheimer. 2016. 'Paris: Beyond the climate dead end through pledge and review?' *Politics and Governance* 4, no. 3: 142-151. DOI: 10.17645/pag.v4i3.634.

Kern, Kristine. 2012. 'Climate governance in the EU multi-level system: The role of cities.' *Fifth Pan-European Conference on EU Politics,* Porto, Portugal. 2010. Accessed 30 June 2021.

Kern, Kristine and Harriet Bulkeley. 2009. 'Cities, Europeanization and multi-level governance: governing climate change through transnational municipal networks.' *Journal of Common Market Studies* 47, no. 2: 309-332.

Kim, Yoomi, Katsuya Tanaka and Shunji Matsuoka. 2020. 'Environmental and economic effectiveness of the Kyoto Protocol.' *Plos one* 15, no. 7: e0236299. DOI: https://doi.org/10.1371/journal.pone.0236299.

Klepper, Gernot and Sonja Peterson. 2006. 'Emissions trading, CDM, JI, and More: The climate strategy of the EU.' *The Energy Journal* 27, no. 2: 1-26. DOI: 10.5547/ISSN0195-6574-EJ-Vol27-No2-1.

Knopf, Brigitte and Oliver Geden. 2020. 'A warning from the IPCC: the EU 2030's climate target cannot be based on science alone.' Accessed 30 June 2021. (https://energypost.eu/warning-ipcc-eu-2030s-climate-target-based-science-alone/).

Krenek, Margit and Alexander Schratzenstaller. 2019. 'Tax-based own resources to finance the EU budget. Potential revenues, summary evaluation from a sustainability perspective, and implementation aspects.' *Österreichisches Institut für Wirtschaftsforschung, WFO Working Paper* 581/2019, Vienna.

Kuyper, Jonathan, Heike Schroedera and Björn-Ola Linnér. 2018. 'The evolution of the UNFCCC.' *Annual Review of Environment and Resources* 43, no. 1: 343-368. DOI: https://doi.org/10.1146/annurev-environ-102017-030119.

Ladeur, Karl-Heinz. 1996. 'The new European agencies. The European Environment Agency and prospects for a European network of environmental administrations.' *EUI RSC Working Paper* 96, no. 50.

Le Cacheux, Jacques. 2018. 'Single market and single currency: Intended and unintended effects.' In '*Report on the state of the European Union Vol. 5: The Euro at 20 and the futures of Europe*, Jérôme Creel, Éloi Laurent and Jacques Le Cacheux (eds.): 49-64. Cham: Palgrave Macmillan.

Lenschow, Andrea. 2005. 'Environmental policy.' In *Policymaking in the European Union,* Helen Wallace, Mark A. Pollack, Christalla Roederer-Rynning and Alasdair R. Young (eds.): 305-328. New York: Oxford University Press.

Lenschow, Andrea. 2020. 'Environmental policy: Contending dynamics of policy change.' In *Policymaking in the European Union*, Helen Wallace, Mark A. Pollack, Christalla Roederer-Rynning and Alasdair R. Young (eds.). New York: Oxford University Press.

Livingston, Jasmine E. and Markku Rummukainen. 2020. 'Taking science by surprise: The knowledge politics of the IPCC Special Report on 1.5 degrees.' *Environmental Science & Policy* 112: 10-16. DOI: https://doi.org/10.1016/j.envsci.2020.05.020.

Lloyd, Peter. 2012. 'Multilateralism in crisis.' *ARTNeT Working Paper Series,* no. 114. http://hdl.handle.net/10419/64286.

Liu, Lei, Tong Wu and Ziqianhong Wan. 2019. 'The EU-China relationship in a new era of global climate governance.' *Asia Europe Journal* 17: 243–254.

Liu, Lei and Tong Wu (2018), 'EU-China relationship in a new era of global climate governance', EUI Working Paper. https://www.eui.eu/Documents/RSCAS/JMF-25-Presentation/EU-China-relationship-Jul-14.pdf

Link, Werner. 2012. 'Integratives Gleichgewicht und gemeinsame Führung. Das europäische System und Deutschland.' *Merkur* 66, no. 762: 1025-1034.

Lessenski, Marin. 2017. 'The beginnings of a beautiful friendship? The EU's energy and climate policies.' In Exploring EU Coalitions, published by Janning et al. *European Council on Foreign Relations,* Policy Brief October 16, 2017. https://ecfr.eu/publication/exploring_eu_coalitions_7230/

Mabey, Nick. 2015. 'What Paris means for Europe.' Accessed 30 June 2021. https://www.e3g.org/publications/what-paris-means-for-europe/.

Marcu, Andrei, Simone Borghesi, Wijnand Stoefs, Isabella Alloisio, Francesco Nicolli and Domien Vangenechten. 2019. 'The EU's NDC after the Talanoa Dialogue.' *The EU's NDC after the Talanoa Dialogue*. https://cadmus.eui.eu/bitstream/handle/1814/60628/RSCAS_FSR_RR_2019.pdf?sequence=1.

Marcu, Andrei, Simone Borghesi, Wijnand Stoefs, Isabella Alloisio, Francesco Nicolli, and Domien Vangenechten. 2019. 'The EU's NDC after the Talanoa Dialogue. European roundtable on climate change and sustainability transition.' EUI Working Paper, January. https://cadmus.eui.eu/bitstream/handle/1814/60628/RSCAS_FSR_RR_2019.pdf?sequence=1.

Marklund, Per-Olov and Eva Samakovlis. 2007. 'What is driving the EU burden sharing agreement: efficiency or equity?' *Journal of Environmental Management* 85, no. 2: 317-329. DOI: https://doi.org/10.1016/j.jenvman.2006.09.017.

Martens, Maria. 2010. 'Voice or Loyalty? The evolution of the European Environment Agency (EEA).' *Journal of Common Market Studies* 48, no. 4: 881–901. DOI: 10.1111/j.1468-5965.2010.02078.x.

Massey, Eric, and Dave Huitema. 2013. 'The emergence of climate change adaptation as a policy field: the case of England.' *Regional Environmental Change* 13, no. 2: 341-352. DOI: https://doi.org/10.1007/s10113-012-0341-2.

Mathiesen, Karl. 2021. 'EU goes soft on China in hopes of a climate 'partnership' while the US plays hardball.' Accessed 2 February 2021. https://www.politico.eu/article/eu-soft-china-hopes-climate-partnership-us-plays-hardball/.

Matthews, Allen. 2020. 'Climate mainstreaming the CAP in the EU budget: fact or fiction.' Accessed 22 January 2020. http://capreform.eu/climate-mainstreaming-the-cap-in-the-eu-budget-fact-or-fiction/

Mbeva, Kennedy Liti and Pieter Pauw. 2016. 'Self-differentiation of countries' responsibilities: Addressing climate change through intended nationally determined contributions.' Deutsches Institut für Entwicklungspolitik (DIE), no. 4/2016. http://hdl.handle.net/10419/199467.

Mccright, Aaron M., Riley E. Dunlap, and Sandra T. Marquart-Pyatt. 2015. 'Political ideology and views about climate change in the European Union.' Environmental Politics 25, no. 2: 338-358. DOI: 10.1080/09644016.2015.1090371.

Mehling, Michael, Harro van Asselt, Kasturi Das, Susanne Droege, and Cleo Verkuijl. 2017. 'Designing border carbon adjustments for enhanced climate action.' *Climate Strategies*.

Meyer-Ohlendorf, Nils and István Bart. 2020. 'Climate Action Regulation 2.0 – EU framework or making non-ETS sector climate neutral.' *Ecologic,* December. https://www.ecologic.eu/sites/default/files/publication/2021/50020-climateactionregulation2-0_171220_final.pdf.

Mechler, Reinhard, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski, JoAnne, and Linnerooth-Bayer (eds.). 2019. Loss and damage from climate change: Concepts methods and policy options. Climate Risk Management, Policy and Governance series, Reinhard Mechler and Swenja Surminski (eds.), Cham: Springer Open. DOI: https://doi.org/10.1007/978-3-319-72026-5.

Medarova-Bergstrom, Keti, Axel Volkery, Pernille Schiellerup, Sirini Withana, and David Baldock. 2011. 'Strategies and instruments for climate proofing the EU Budget.', IEEP, Brussels.

Meyer-Ohlendorf, Nils. 2015. 'An effective governance system for 2030: EU climate and energy policy: design and requirements.' Ecologic Institute Discussion Paper, Berlin, June.

Miccinilli, Máximo. 2020. 'Europe's Green Deal needs to effectively handle rising distributional effects.' Cerre Issue Paper 6, 6 November2019. https://cerre.eu/publications/europes-green-deal-needs-effectively-handle-rising-distributional-effects/.

Morgan, Sam. 2019. 'EU agrees to 'update' Paris climate pledge.' *Climate Home News*, 7 October 2019. https://www.climatechangenews.com/2019/10/07/eu-agrees-update-paris-climate-pledge/.

Morseletto, Piero, Frank Biermann and Philipp Pattberg. 2017. 'Governing by targets: reductio ad unum and evolution of the two-degree climate target.' *International Environmental Agreements: Politics, Law and Economics* 17, no. 5: 655-676.

Moy, Edward. 1994. 'Recent developments note: The European Environmental Agency.' *Buffalo Journal of International Law* 1, no. 2: 243-246.

Must, Ülle. 2010. 'Collaboration in EU framework programmes – the case of the social sciences and humanities.' *Innovation: The European Journal of Social Science Research* 23, no. 1: 79-83. https://doi.org/10.1080/13511611003791190

Nabuurs, Gert-Jan, Eric J. M. M. Arets, and Mart-Jan Schelhaas. 2018. 'Understanding the implications of the EU-LULUCF regulation for the wood supply from EU forests to the EU.' *Carbon Balance and Management* 13: Art. 18. https://doi.org/10.1186/s13021-018-0107-3.

Nowag, Julian, Article 11 TFEU and Environmental Rights (15 January 2018). Forthcoming. Draft chapter Sanja Bogojević and Rosemary Rayfuse, Environmental Rights in Europe and Beyond (Hart Publishing, 2018), EULawWP 1/2018. http://dx.doi.org/10.2139/ssrn.3217194.

Oberthür, Sebastian and Hermann E. Ott. 1999. *The Kyoto Protocol. International climate policy for the 21st Century*. Berlin, Heidelberg: Springer-Verlag.

Oberthür, Sebastian and Claire Roche Kelly. 2008. 'EU leadership in international climate policy: Achievements and challenges.' *The International Spectator* 43, no. 3: 35-50. https://doi.org/10.1080/03932720802280594.

Oberthür, Sebastian and Lisanne Groen. 2017 'The European Union and the Paris Agreement: leader, mediator, or bystander?' *WIREs Climate Change* 8, no. 1: Art. e445. DOI: https://doi.org/10.1002/wcc.445.

Oberthür, Sebastian and Claire Dupont. 2021. 'The European Union's international climate leadership: towards a grand climate strategy?' *Journal of European Public Policy* 28, no. 7: 1095-1114. DOI: https://doi.org/10.1080/13501763.2021.1918218.

OECD. n.d. 'Toolkit international regulatory cooperation.' https://www.oecd.org/gov/regulatory-policy/irc-toolkit.htm

OECD. 2001. 'Kyoto mechanisms, monitoring and compliance. From Kyoto to The Hague. A selection of recent OECD and IEA analyses on the Kyoto Protocol.' unspecified, COM/ENV/EPOC/IEA/SLT(2001)9. https://www.oecd.org/environment/cc/2466825.pdf.

OECD. 2013. *International Regulatory Co-operation: Addressing Global Challenges*, OECD Publishing.

OECD. 2017. 'Budgeting and performance in the European Union. A review in the context of EU budget focused on results.' *OECD Journal on Budgeting* 2017, no. 1. https://www.oecd.org/gov/budgeting/budgeting-and-performance-in-the-eu-oecd-review.pdf.

OECD. 2018. 'International regulatory co-operation. Adapting rulemaking for an interconnected world.' *OECD Policy Brief*, October. https://www.oecd.org/gov/regulatory-policy/international-regulatory-cooperation-policy-brief-2018.pdf.

Orlando, Emanuela. 2014. 'The Evolution of EU policy and law in the environmental field: Achievements and current challenges.' In *The EU, the US and Global Climate Governance*, Christine Bakker and Francesco Francioni (eds.): 61-80. Farnham: Ashgate Publishing.

Oroschakoff, Kalina, and Karl Mathiesen. 2021. 'EU jitters over US return to Paris Agreement.' *Politico*, 22 January 2021. https://www.politico.eu/article/eu-jitters-over-us-climate-biden-trump-green-deal-return-to-paris-agreement/.

Oroschakoff, Kalina, and Paola Tamma. 2019. 'Franco-German alliance splinters over climate policy.' *Politico*, 22 March 2019. https://www.politico.eu/article/franco-german-alliance-splinters-over-climate-policy/.

Ourbak, Timothée and Alexandre K. Magnan. 2017. 'The Paris Agreement and climate change negotiations: Small Islands, big players.' *Regional Environmental Change* 18: 2201–2207. DOI: https://doi.org/10.1007/s10113-017-1247-9.

Ovodenko, Alexander. 2016. 'The global climate regime: Explaining lagging reform.' *Review of Policy Research* 31, no. 3: 173-198. DOI: https://doi.org/10.1111/ropr.12068.

Oxfam. 2016. 'Quick ratification of Paris agreement welcome, but EU now needs to translate words into action.' Accessed 30 June 2021. https://www.oxfam.org/en/press-releases/quick-ratification-paris-agreement-welcome-eu-now-needs-translate-words-action.

Pahle, Michael and Quemin, Simon. 2020. 'EU ETS: The market stability reserve should focus on carbon prices, not allowance volumes.' Accessed 16 June 2020. https://energypost.eu/eu-ets-the-market-stability-reserve-should-focus-on-carbon-prices-not-allowance-volumes/.

Palinkas, Peter. 1998. 'The climate change policy: the position of the European Union.' *Energy & Environment* 9, no. 4: 449-461. https://www.jstor.org/stable/44396912.

Parker, Charles F., Christer Karlsson, Mattias Hjerpe and Björn-Ola Linnér. 2012. 'Fragmented climate change leadership: making sense of the ambiguous outcome of COP-15.' *Environmental Politics* 21, no.2: 268-286. DOI: https://doi.org/10.1080/09644016.2012.651903.

Parker, Charles F, Christer Karlsson and Mattias Hjerpe. 2015. 'Climate change leaders and followers: Leadership recognition and selection in the UNFCCC Negotiations.' *International Relations* 29, no. 4: 434–454. DOI: https://doi.org/10.1177/0047117814552143.

Parker, Charles F., Christer Karlsson and Mattias Hjerpe. 2017. 'Assessing the European Union's global climate change leadership: from Copenhagen to the Paris Agreement.' *Journal of European Integration* 39, no. 2: 239-252. DOI: https://doi.org/10.1080/07036337.2016.1275608.

Pashley, Alex. 2015. 'Did the Paris deal rule out climate compensation?' Accessed 30 June 2021. https://www.climatechangenews.com/2015/12/18/did-the-paris-deal-rule-out-climate-compensation/.

Pauw, Pieter, Clara Brandi, Carmen Richerzhagen, Steffen Bauer and Hanna Schmole. 2014. 'Different perspectives on differentiated responsibilities: a state-of-the-art review of the notion of common but differentiated responsibilities in international negotiations'. Deutsches Institut für Entwicklungspolitik (DIE), no. 6/2014. http://hdl.handle.net/10419/199419.

Pavese, Caroline, and Diarmuid Torney. 2012. 'The contribution of the European Union to global climate change governance: explaining the conditions for EU actorness.' *Revista Brasileira de Política Internacional* 55: 125-143. DOI: 10.1590/S0034-73292012000300008.

Phillips, Leigh. 2009. 'Copenhagen failure 'disappointing', 'shameful'.' Accessed 30 June 2021. https://euobserver.com/environment/29181.

Pickering, Jonathan, Jeffrey McGee, Sylvia Karlsson-Vinkhuyzen and Joseph Wenta. 2019. 'Global climate governance between hard and soft law: Can the Paris Agreement's 'Crème Brûlée' approach enhance ecological reflexivity?' *Journal of Environmental Law 31,* no. 1: 1-28. DOI: https://doi.org/10.1093/jel/eqy018.

Pozzi, Federica. 2017. 'The importance of LULUCF accounting for the success of the Paris Agreement.' *Accessed 30 June 2021*. https://carbonmarketwatch.org/2017/07/18/importance-lulucf-accounting-success-paris-agreement/

Prys-Hansen, Miriam. 2020. 'Differentiation as affirmative action: Transforming or reinforcing structural inequality at the UNFCCC?' *Global Society* 34, no. 3: 353-369. https://doi.org/10.1080/13600826.2020.1739635

Raiser, Kilian, Ulrike Kornek, Christian Flachsland and William F. Lamb. 2020. 'Is the Paris Agreement effective? A systematic map of the evidence.' *Environmental Research Letters* 15, no. 8: 083006. DOI: https://doi.org/10.1088/1748-9326/ab865c.

Rajamani, Lavanya, and Jutta Brunnée. 2017. 'The legality of downgrading nationally determined contributions under the Paris Agreement: Lessons from the US disengagement.' *Journal of Environmental Law* 29, no. 3: 537–551. DOI: 10.1093/jel/eqx024.

Raman, Meenakshi and Chee Yoke Ling. 2016. 'The climate change battle in Paris: putting equity into action.' Published with the Third World Network, Spotlight on the SDGs.

Rayner, Tim and Andrew Jordan. 2016. 'Climate change policy in the European Union.' *Oxford Research Encyclopedia of Climate Science*. DOI: https://doi.org/10.1093/acrefore/9780190228620.013.47.

Rechtschaffen, Clifford. 2007. 'Shining the spotlight on European Union environmental compliance', *Pace Environmental Law Review* 24, no. 1: Art. 7.

Robert, Aline. 2019. 'European Green Deal gives COP25 a 'breath of fresh air'.' *Euractiv*, December 12, 2019. https://www.euractiv.com/section/energy-environment/news/european-green-deal-gives-cop25-a-breath-of-fresh-air/.

Rhineard, Mark and Gunnar Sjöstedt. 2019. 'The EU as a global actor: A new conceptualisation four decades after 'actorness.' *Swedish Institute of International Affairs,* no. 6. https://www.researchgate.net/publication/333421343_The_EU_as_a_Global_Actor_A_new_conceptualisation_four_decades_after_'actorness',

Runkel, Matthias, András Lukács, Nurkyz Numanbetova, Anna Nikolova, Patrick ten Brink, Roland Joebstl, Markus Trilling, Eero Yrjö-Koskinen and Johanna Kresin. 2019. 'Climate change and the EU budget 2021-2027.' *Synthesis Report.* https://www.euki.de/wp-content/uploads/2019/10/2019_MFF-and-Climate_background-report.pdf.

Schoenefeld, Jonas J. and Andrew J. Jordan. 2020. 'Towards harder soft governance? Monitoring climate policy in the EU.' *Journal of Environmental Policy & Planning* 22, no.6, 774-786. DOI: 10.1080/1523908X.2020.1792861

Schild, Joachim. 2020. 'Europapolitik in und durch die Mitgliedstaaten.' In *Handbuch Europäische Union*, Becker P. and Lippert B. (eds.): 491-514. Wiesbaden: Springer VS. DOI: https://doi.org/10.1007/978-3-658-17409-5_16.

Schipper, E. Lisa F. 2006. 'Conceptual history of adaptation in the UNFCCC process.' *Review of European Community & International Environmental Law* 15, no. 1: 82-92. DOI: 10.1111/j.1467-9388.2006.00501.x.

Schoenefeld, Jonas J., Kai Schulze, Mikael Hildén and Andrew Jordan. 2019. 'Policy monitoring in the EU: The Impact of institutions, implementation, and quality.' *Politische Vierteljahresschrift* 60: 719-741. DOI: https://doi.org/10.1007/s11615-019-00209-2.

Schoenefeld, Jonas J. and Andrew Jordan. 2019. 'Towards harder soft governance? Monitoring climate policy in the EU.' *Journal of Environmental Policy and Planning* 22, no. 1: 1-13. https://doi.org/10.1080/1523908X.2020.1792861.

Schöneberger, Christoph. 2012. 'Hegemon wider Willen. Zur Stellung Deutschlands in der Europäischen Union.' *Merkur* 66, no. 752: 1-8.

Schreurs, Miranda A. and Yves Tiberghien. 2007. 'Multi-level reinforcement: Explaining European Union leadership in climate change mitigation', *Global Environmental Politics* 7, no. 4: 19-46. DOI: 10.1162/glep.2007.7.4.19.

Schunz, Simon. 2014. 'From the Berlin Mandate to the Kyoto Protocol (1995–1997): EU Influence on the first development of the global climate regime'. In *European foreign policy and the global climate regime,* Simon Schunz (ed.) 67-112. Brussels: Peter Lang S.A. International Academic Publishers. https://library.oapen.org/bitstream/handle/20.500.12657/25969/1004114.pdf?sequence=1

Selin, Henrik, and Stacy D. VanDeveer. 2015. *European Union and environmental governance*, London: Routledge.

Şekercioğlu, Selma. 2018. *Civil society impact on the European Union climate change policy*. London: Transnational Press London.

Sharma, Anju. 2016. 'Precaution and post-caution in the Paris Agreement: adaptation, loss and damage and finance.' *Climate Policy 17,* no. 1: 1-15. DOI: 10.1080/14693062.2016.1213697.

Siebenhüner, Bernd. 2003. 'The changing role of nation states in international environmental assessments – the case of the IPCC.' *Global Environmental Change* 13, no. 2: 113–123. https://doi.org/10.1016/S0959-3780(03)00023-2.

Simon, Frédéric and Kira Taylor. 2021. 'Breakthrough as EU negotiators clinch deal on European climate law.' *Euractiv,* April 21, 2021, accessed June 18, 2021 at: https://www.euractiv.com/section/climate-environment/news/breakthrough-as-eu-negotiators-clinch-deal-on-european-climate-law/.

Skodvin, Tora, Anne Therese Gullberg, and Stine Aakre. 2010. 'Target-group influence and political feasibility: the case of climate policy design in Europe.' *Journal of European Public Policy* 17, no. 6: 854-873. https://doi.org/10.1080/13501763.2010.486991

Sohn, Rike. 2016. 'EU environmental policy and diplomacy from Copenhagen to Paris and beyond.' *ZEI Discussion Paper C234*. http://aei.pitt.edu/86963/1/DP_C234_Rike_Sohn.pdf.

Sterk, Wolfgang, Christof Arens, Sylvia Borbonus, Urda Eichhorst, Dagmar Kiyar, Florian Mersmann, Frederic Rudolph, Hanna Wang-Helmreich, and Rie Watanabe. 2010. 'Deadlocks of international climate policy – An assessment of the Copenhagen climate summit.' *Journal for European Environmental & Planning Law* 7, no. 2: 201-219. DOI: 10.1163/161372710X525091.

Sunstein, Cass R. 2005. *Laws of Fear: Beyond the precautionary principle*. New York: Cambridge University Press.

Tedsen, Elizabeth, and Gesa Homann. 2013. 'Implementing the precautionary principle for climate engineering.' *Carbon & Climate Law Review* 7, no. 2: 90-100. https://www.jstor.org/stable/24323936.

Termini, Valeria. 2009. 'Energy and European Institutions.' In *The European Union in the 21st Century: Perspectives from the Lisbon Treaty,* Stegano Micossi and Gian Luigi Tosato (eds.): 98-118. Brussels: CEPS.

Torney, Diarmuid. 2013. 'Outsiders' perceptions and EU influence in the world: The case of climate change.' NFG Research Group „Asian Perceptions of the EU Freie Universität Berlin, no. 4/2013.

Torney, Diarmuid. 2015. *European Climate Leadership in Question Policies toward China and India*. Cambridge: MIT press.

Trew, Stuart. 2019. 'International regulatory cooperation and the public good. How 'good regulatory practices' in trade agreements erode protections for the environment, public health, workers and consumers.' April 2019. Berlin. ISBN: 978-3-9818609-0-0. https://www.tni.org/files/publication-downloads/international_regulatory_cooperation-web.pdf.

Trondal, Jarle. 2012. 'On bureaucratic centre formation in government institutions: lessons from the European Commission.' *International Review of Administrative Sciences* 78, no. 3: 425-446. https://doi.org/10.1177/0020852312445021.

Umbach, G. (since 2000): Umwelt-, Klima- und Meerespolitik, in: Weidenfeld, Werner / Wessels, Wolfgang (eds.): Jahrbuch der Europäischen Integration, Nomos.

UNFCCC. n.d. 'UNFCCC – 25 Years of effort and achievement. Key milestones in the evolution of international climate policy.' Online timeline. Accessed 30 June 2021. https://unfccc.int/timeline/.

UNFCCC. n.d. 'Understanding the Convention.' Online guide. Accessed 27 June 2021. https://unfccc.int/resource/bigpicture.

UNFCCC n.d. 1997. 'Conference on climate change opens in Kyoto; Aim is to combat global warming process beyond year 2000.' Accessed 14 July 2021. https://www.un.org/press/en/1997/19971201.ENV453.html.

UNFCCC n. d. 2015. 'Adoption of the Paris agreement. Proposal by the president.' Draft decision-/CP.21. FCCC/CP/2015/L.9/Rev.1. Accessed 14 July 2021. https://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf.

Van Asselt, Harro. 2007. 'Dealing with the fragmentation of global climate governance. Legal and political approaches in interplay management.' Global Governance Working Paper No 30, May. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1335082

Van Asselt, Harro, and Stefan Böβner. 2016, 'The shape of things to come: global climate governance after Paris.' *Carbon & Climate Law Review* 10, no. 1: 46-61. https://www.jstor.org/stable/4386013.

Van de Poel, Ibo, Jessica N. Fahlquist, Neelke Doorn, Sjoerd Zwart, and Lambèr Royakkers. 2012. 'The problem of many hands: Climate change as an example.' *Science and engineering ethics* 18, no.1: 49-67. DOI: 10.1007/s11948-011-9276-0.

Van Schaik, Luise, and Karel van Hecke. 2008. 'Skating on thin Ice: Europe's internal climate policy and its position in the world.' Egmont European Affairs Working Paper No. 12. http://aei.pitt.edu/10886/1/081207-WP-EU-climate.pdf.

Van Schaik, Louise. 2012. 'The EU and the progressive alliance negotiating in Durban: saving the climate?' Climate & Development Knowledge Network Working Paper 354.

Vasileiadou, Eleftheria, Gaston Heimeriks, and Arthur C. Petersen. 2011. 'Exploring the impact of the IPCC Assessment Reports on science.' *Environmental Science & Policy* 14, no. 8: 1052-1061. DOI: https://doi.org/10.1016/j.envsci.2011.07.002.

Van Vught, Frans. 2009. 'The EU innovation agenda: Challenges for European higher education and research.' *Higher Education Management and Policy* 21, no. 2. DOI: https://doi.org/10.1787/hemp-21-5ksj19w5lb6h

Victor, David G. 2015. 'Why Paris Worked: A different approach to climate diplomacy.' *Yale Environment 360*, 15 December 2015. https://e360.yale.edu/features/why_paris_worked_a_different_approach_to_climate_diplomacy.

Vijge, Marjanneke, Frank, Biermann, Rakhyun E. Kim, Maya Bogers, Melanie van Driel, Francesco S. Montesano, Abbie Yunita, and Norichika Kanie. 2020. 'Governance through global goals.' In *Architectures of earth system governance: Institutional complexity and structural transformation*, Frank Biermann and Rakhyun Kim,(eds.): 254-274. Cambridge: Cambridge University Press.

Vogel, David. 1997. 'Trading up and governing across: transnational governance and environmental protection' *Journal of European public policy* 4, no. 4: 556-571. https://doi.org/10.1080/135017697344064.

Vogler, John and Charlotte Bretherton. 2006. 'The European Union as a protagonist to the United States on climate change.' *International Studies Perspectives* 7, no. 1: 1-22. https://www.jstor.org/stable/44218447.

Voigt, Christina, and Felipe Ferreira. '"Dynamic Differentiation": The Principles of CBDR-RC, progression and highest possible ambition in the Paris Agreement.' *Transnational Environmental Law 5*, no. 2 (2016): 285–303. doi:10.1017/S2047102516000212.

Von Lucke, Franziskus. 2019. 'Principled pragmatism in climate policy? The EU and changing practices of climate justice.' Presented at the 2019 EUSA Sixteenth Biennial Conference, 9-11 May 2019, Denver, Colorado.

Von Lüpke, Heiner and Mareike Well. 2019. 'Analyzing climate and energy policy integration: the case of the Mexican energy transition.' *Climate Policy* 20, no. 7: 832-845. DOI: https://doi.org/10.1080/14693062.2019.1648236.

WANG, Tian and Xiang GAO. 2018. 'Reflection and operationalization of the common but differentiated responsibilities and respective capabilities principle in the transparency framework under the international climate change regime.' *Advances in Climate Change* Research 9, No. 4, Pages 253-263. https://doi.org/10.1016/j.accre.2018.12.004.

Wettestad Jorgen. 2000. 'The complicated development of EU climate policy'. In *Climate change and European leadership* Joyeeta Gupa and Michael Grubb,(eds.): 25-45. Dordrecht: Springer. DOI: https://doi.org/10.1007/978-94-017-1049-7_3.

Wille, Anchrit. 2013. The normalization of the European Commission: Politics and bureaucracy in the EU executive. Oxford: Oxford University Press.

Winkler, Harald and Lavanya Rajamani. 2013. 'CBDR&RC in a regime applicable to all.' Climate Policy, DOI:10.1080/14693062.2013.791184.

WRI. 2015. 'STATEMENT: WRI Reacts to EU's climate plan announcement.' World Resources Institute, 25 February2015. https://www.wri.org/news/statement-wri-reacts-eus-climate-plan-announcement

Wurzel, Rüdiger and James Connelly (eds.). 2011. *The European Union as a leader in international climate change politics.* Oxon and New York: Routledge

Wurzel, Rüdiger K.W., James Connelly, and Duncan Liefferink. 2016. *The European Union in International climate change politics. Still taking a lead?*. London: Routledge.

WWF. 2015. 'The EU's climate commitment is thin on details and ambition.' 6 March 2015. https://www.wwf.eu/?240872/The-EUs-climate-commitment-is-thin-on-details-and-ambition

Xinhua. 2019. 'Chinese FM says climate change big highlight of China-EU cooperation.' *Global Times*, 17 December 2019. https://www.globaltimes.cn/content/1173795.shtml.

Zehavi, Amos. 2012. 'New governance and policy instruments: are governments going 'soft'.' Oxford: The Oxford Handbook of Governance.

Zillman, John W. 2009. 'A history of climate activities.' *World Meteorological Organisation (WMO) Bulletin* 58, no. 3: 141-150.

Zito, Anthony R. 2009. 'European agencies as agents of governance and EU learning.' *Journal of European Public Policy* 16, no. 8: 1224-1243. DOI: 10.1080/13501760903332795.

CEPS
PLACE DU CONGRES 1
B-1000 BRUSSELS