

Περιφέρεια | Regional Integration: Politics, Economics, Governance

Τόμ. 18 (2024)

Περιφέρεια | Regional Integration: Politics, Economics, Governance: Addressing Climate Change in Turbulent Times

Autumn Φθινόπωρο 2024	Issue Τεύχος 18
ΠΕΡΙΦΕΡΕΙΑ REGIONAL INTEGRATION politics economics governance	
INTRODUCTION ΕΙΣΑΓΩΓΗ	The Editor of the special issue Addressing Climate Change in Turbulent Times Emmanuela Doussis
POLICY BRIEF ΚΕΙΜΕΝΟ ΠΟΛΙΤΙΚΗΣ	Constantinos Cartalis Towards climate neutrality in the European Union
RESEARCH ARTICLES ΕΡΕΥΝΗΤΙΚΑ ΑΡΘΡΑ	Andreas A. Papandreou Climate economics: central themes and evolving debates Marie-Claire Cordonnier Segger & Markus Gehring Climate Justice through International Court and Tribunals: Advisory Opinions in the International Tribunal on the Law of the Sea (ITLOS), the Inter-American Court of Human Rights (IACtHR) and the International Court of Justice (ICJ) Emmanuela Doussis The bumpy road to climate neutrality and just transition and the case of Greece George Dikaos Policy change, port governance and climate policy in the European Union Othon Kaminiaris Taking stock of the Greek climate change adaptation processes: compliance with and efficiency of the institutional and legal framework Nikos Mantzaris Conflicting policies threatening the sustainability of Greece's electricity model: short history and lessons learnt
POLICY PAPER ΚΕΙΜΕΝΟ ΠΟΛΙΤΙΚΗΣ	Alexandros Sarris The European Union's Engagement in the Arctic through its Environmental Policy in an era of unprecedented tensions
BOOK REVIEW ΒΙΒΛΙΟΚΡΙΤΙΚΗ	EU Climate Diplomacy towards the IMO and ICAO (Marianna Terezaki) Επιστημονική επιθεώρηση για την περιφερειακή ολοκλήρωση-πολιτική, οικονομία & διακυβέρνηση

Αλλαγή πολιτικής, λιμενική διακυβέρνηση και κλιματική πολιτική στην Ευρωπαϊκή Ένωση

Γιώργος Δικαίος

doi: [10.12681/ri.40700](https://doi.org/10.12681/ri.40700)

Copyright © 2025, George Dikaos



Άδεια χρήσης [Creative Commons Αναφορά-Μη Εμπορική Χρήση 4.0](https://creativecommons.org/licenses/by-nc/4.0/).

Βιβλιογραφική αναφορά:

Δικαίος Γ. (2025). Αλλαγή πολιτικής, λιμενική διακυβέρνηση και κλιματική πολιτική στην Ευρωπαϊκή Ένωση. *Περιφέρεια | Regional Integration: Politics, Economics, Governance*, 18. <https://doi.org/10.12681/ri.40700>

Περιφέρεια | Regional Integration: Politics, Economics, Governance

Τόμ. 18 (2024)

Περιφέρεια | Regional Integration: Politics, Economics, Governance: Addressing Climate Change in Turbulent Times

Autumn Φθινόπωρο 2024	Issue Τεύχος 18
ΠΕΡΙΦΕΡΕΙΑ REGIONAL INTEGRATION politics economics governance	
INTRODUCTION ΕΙΣΑΓΩΓΗ	The Editor of the special issue Addressing Climate Change in Turbulent Times Emmanuela Doussis
POLICY BRIEF ΚΕΙΜΕΝΟ ΠΟΛΙΤΙΚΗΣ	Constantinos Cartalis Towards climate neutrality in the European Union
RESEARCH ARTICLES ΕΡΕΥΝΗΤΙΚΑ ΑΡΘΡΑ	Andreas A. Papandreou Climate economics: central themes and evolving debates Marie-Claire Cordonnier Segger & Markus Gehring Climate Justice through International Court and Tribunals: Advisory Opinions in the International Tribunal on the Law of the Sea (ITLOS), the Inter-American Court of Human Rights (IACtHR) and the International Court of Justice (ICJ) Emmanuela Doussis The bumpy road to climate neutrality and just transition and the case of Greece George Dikaos Policy change, port governance and climate policy in the European Union Othon Kaminiaris Taking stock of the Greek climate change adaptation processes: compliance with and efficiency of the institutional and legal framework Nikos Mantzaris Conflicting policies threatening the sustainability of Greece's electricity model: short history and lessons learnt
POLICY PAPER ΚΕΙΜΕΝΟ ΠΟΛΙΤΙΚΗΣ	Alexandros Sarris The European Union's Engagement in the Arctic through its Environmental Policy in an era of unprecedented tensions
BOOK REVIEW ΒΙΒΛΙΟΚΡΙΤΙΚΗ	EU Climate Diplomacy towards the IMO and ICAO (Marianna Terezaki) Επιστημονική επιθεώρηση για την περιφερειακή ολοκλήρωση-πολιτική, οικονομία & διακυβέρνηση

Αλλαγή πολιτικής, λιμενική διακυβέρνηση και κλιματική πολιτική στην Ευρωπαϊκή Ένωση

Γιώργος Δικαίος

doi: [10.12681/ri.40700](https://doi.org/10.12681/ri.40700)

Copyright © 2025, George Dikaos



Άδεια χρήσης [Creative Commons Αναφορά-Μη Εμπορική Χρήση 4.0](https://creativecommons.org/licenses/by-nc/4.0/).

Βιβλιογραφική αναφορά:

Δικαίος Γ. (2025). Αλλαγή πολιτικής, λιμενική διακυβέρνηση και κλιματική πολιτική στην Ευρωπαϊκή Ένωση. *Περιφέρεια | Regional Integration: Politics, Economics, Governance*, 18. <https://doi.org/10.12681/ri.40700>

Policy change, port governance and climate policy in the European Union*

Dr. George Dikaïos, Adjunct lecturer and postdoctoral researcher,
National and Kapodistrian University of Athens, gdikaïos@uoa.gr

Abstract

As not all European policy sectors have the same strength, does a focusing event assist on the creation of an EU-wide policy? After the adoption of the European Green Deal in 2019, there is a turn into European policies becoming more climate friendly. This article explores the case of the European port governance, a sector governed mostly intergovernmentally and not directly contributing to the fight against climate change. The article delves into the European Studies literature, utilizing it as empirical data, along with European legislation, to showcase that port 'policy' has not been developed and that the penetration of climate policy might lead to a faster development of the former than expected.

Keywords: Climate policy; port governance; European Studies; European Green Deal; policy change

Αλλαγή πολιτικής, λιμενική διακυβέρνηση και κλιματική πολιτική στην Ευρωπαϊκή Ένωση

Δρ. Γιώργος Δικαίος, Διδάσκων και μεταδιδακτορικός ερευνητής,
Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών

Περίληψη

Με την υιοθέτηση της Ευρωπαϊκής Πράσινης Συμφωνίας το 2019, υπήρξε μια τάση στις Ευρωπαϊκές πολιτικές να γίνουν πιο φιλικές προς την κλιματική αλλαγή. Το παρόν άρθρο, αντιμετωπίζοντας την Ευρωπαϊκή Πράσινη Συμφωνία ως σημείο καμπής της διαμόρφωσης πολιτικής στην Ευρωπαϊκή Ένωση, μελετά την περίπτωση της Ευρωπαϊκής λιμενικής διακυβέρνησης, ενός κλάδου που είναι κυρίως διακυβερνητικός και δεν συμβάλλει άμεσα στις προσπάθειες καταπολέμησης της κλιματικής αλλαγής. Το άρθρο εξετάζει την ακαδημαϊκή βιβλιογραφία στον τομέα των Ευρωπαϊκών σπουδών, αξιοποιώντας τη ως εμπειρικό υλικό, καθώς και την Ευρωπαϊκή νομοθεσία, με σκοπό να αναδείξει ότι η λιμενική «πολιτική» δεν έχει αναπτυχθεί και ότι η διεύθυνση της κλιματικής πολιτικής σε αυτήν μπορεί να οδηγήσει σε ταχύτερη ανάπτυξη της πρώτης από το αναμενόμενο.

Λέξεις κλειδιά: Κλιματική πολιτική, λιμενική διακυβέρνηση, Ευρωπαϊκές σπουδές, Ευρωπαϊκή Πράσινη Συμφωνία, αλλαγή πολιτικής.

* This work was partly supported by the SRG Research Grants 2022 (no. S108) and 2023 (no. 2307) of the Sasakawa Young Leaders Fellowship Fund.

1. Introduction and context

Ports are essential gateways for global trade, acting as catalysts for economic development across countries. They facilitate the flow of seaborne trade, with thousands of ports worldwide handling immense volumes of cargo (Alamoush et al. 2022). In Europe, and in particular in the European Union (EU), ports play a particularly vital role by connecting transport corridors to the global market, thereby supporting the exchange of goods within the internal market and linking peripheral and island regions to the continent's mainland (European Commission 2024c).

Despite their crucial role in the global economy and supply chains (which leads to think that they would be included in the efforts for the reduction of greenhouse gas emissions (GHG)), ports and ships remain heavily reliant on fossil fuels, leading to significant anthropogenic emissions and environmental externalities, including GHG emissions and air pollutants (Alamoush et al. 2022). Notably, within the maritime sector, approximately 6-7% of GHG emissions occur while ships are berthed in ports across the European Economic Area. This statistic underscores the urgent need for a paradigm shift toward greening shipping practices and transforming port services into sustainable operations (Jacobs 2022).

As global trade continues to expand, prioritizing sustainability in port activities is essential to mitigate environmental impacts and achieve long-term economic resilience in shipping. In this context, there is an imperative need for decarbonization in maritime transport. Ports can serve as facilitators for the greening of shipping, engaging with stakeholders to promote comprehensive policies for carbon reduction. Moreover, climate change has underscored another vital role of ports: beyond merely transferring goods, they are becoming critical energy hubs for both conventional and renewable energies (Jacobs 2022). This evolving role has been recognized by the European Commission, which has adopted a series of initiatives to enhance this function and further support the decarbonization of the maritime sector, ensuring that ports not only contribute to economic growth but also to environmental stewardship. However, it is important to note that an overarching EU port policy, which could facilitate decarbonization through its climatization, does not currently exist.

From the point of view of political science (and international relations (IR)), transport policy in general and shipping in particular remains an under-researched topic. Transport policy has usually been seen as rather technical and without interest for scholars studying politics or policymaking, thus, remaining on the bench of analyses. Nevertheless, nowadays, a turn is starting to be observed: transport policy has been catching interest of political scientists and IR scholars more and more, as it becomes more and more politicized. The reason for this politicization is the infiltration of a different policy field in the way transport works. This field is climate policy, which today is the one of the main priorities in the European Union's (EU) internal and external policy (Dikaïos 2024). As the EU is one of the largest international trade players globally, and its trade takes place mostly through maritime

transport (European Commission 2025a), climate rules have started impacting how shipping, ports and supply chains connected to maritime affairs operate.

During the initial research for this article, and to the best of the author's knowledge, it was observed that scholarly articles on EU port policy, stemming from political science and/or IR, were not existent. Based on this, the rationale behind the desk research methodology employed for this article is to discover such scholarly pieces and analyze them both quantitatively and qualitatively. Moreover, the empirical data is complemented by European legislation on the subject at hand. The article explores whether there is a shift regarding ports' governance, driven by the developments emanating from the European Green Deal. To do so, it devises an analytical framework that emerges through the field of 'policy change'.

The next part connects the EU climate policy with the EU's port governance, setting further the context. It is followed by the part that presents the analytical sketch of the article, which interrelates the notion of policy change with that of focusing events. The following parts analyze the results, presenting also the methodological approach, while a discussion and conclusion part completes the article.

2. Setting the scene of climate policy and port governance: A new interconnection for the EU?

While there is an abundance of literature examining the impacts of climate change on ports' operation coming from different disciplines (e.g., maritime studies, engineering, economics, etc.; see, indicatively, Becker et al. 2018; Devendran et al. 2023; Izaguirre et al. 2021; León-Mateos et al. 2021), there are only few pieces that discuss the subject from a political science perspective – not always published in political science /IR journals.

A significant aspect of transport policy lies in the functioning of ports, which can play a crucial role in the effort to decarbonize transport systems. To fully understand their impact, it is important to examine the EU port governance regarding climate change. As noted by several scholars (e.g., Pallis 2006; Thomas and Turnbull 2017; Verhoeven 2009), a common and consistent EU port policy has yet to be established. Although attempts have been made since the early 2000s to create a unified port policy –such as the 2001 White Paper on “European Transport Policy” and the 2011 “Roadmap to a Single European Transport”– various obstacles have emerged, primarily due to the differences among the ports of EU member states. According to Pallis (2006), EU ports have evolved in diverse ways that reflect their distinct markets and national characteristics, unlike other areas of the transport sector. A key issue highlighted by Pallis is the challenge of implementing a 'one size fits all' approach, given that each EU port is unique in terms of its market, geography, management, operations and employment. Furthermore, differing port traditions contribute to varied contemporary management and organizational strategies across these ports. Therefore, achieving a cohesive EU port policy would require legislation capable of addressing the complex and heterogeneous structures and policy transitions inherent to the sector (Pallis 2006).

The article of Pallis was published in 2006. Since then, the evolution of the port governance in the EU emphasizes mostly in competition matters and financial issues. It is telling of this slow evolution and lower attention to the ports' topics, that the current page of the European Commission dedicated to "Ports" still mentions the following: 'This initiative is currently under assessment and the proposal for the way forward is expected to follow in summer 2018' (European Commission 2024c). Moreover, the latest Regulation mentioned is one from 2017.

Since climate change began to significantly impact maritime transportation, a new discourse on the governance of ports has sparked. In particular, van Leeuwen (2015) observed that since the 1980s, there has been a noticeable trend towards regionalization in maritime governance concerning environmental matters. This shift can be attributed to the declining ambition of the IMO and the ineffective enforcement of its standards. As a result, this has prompted the establishment of stricter environmental standards and improved enforcement mechanisms within regional maritime governance. This pressure has facilitated the adoption of more effective global standards within the IMO, making regionalization a tool for enhancing the effectiveness of maritime governance (van Leeuwen 2015). Moreover, Puig et al. (2021) emphasized on the importance of collaboration among port authorities, stakeholders, and policymakers in promoting innovation and sustainability in port management, particularly considering climate change. Finally, Monios et al. (2024) recently identified four key groups of governance actors related to port governance in the context of climate change, one of which includes international shipping governance, involving the case of the EU. Traditionally, this group has not been closely associated with port governance since ports operate within national jurisdictions. However, the article notes that environmental regulations from the EU and IMO -such as decarbonization and low sulfur mandates- significantly influence ports' decisions regarding bunkering options and the inspection requirements for ship compliance (Monios et al. 2024). Three key findings are highlighted further in the literature (Monios et al. 2024; Puig et al. 2021; van Leeuwen 2015); first, climate change emphasizes the necessity for a shift in port governance to effectively tackle its environmental impacts; second, there has been a regional increase in effective measures to combat climate change within maritime transportation; third, these environmental challenges have enabled the EU to play a more assertive role in the decarbonization of the port sector. Does this crucial role of the EU in port management, highlighted by the impact of climate change on transportation, suggest a shift in port governance and could possibly prompt renewed discussions about an EU port policy?

Decarbonization, or as the EU frames it through its 2019 European Green Deal, climate neutrality, is the goal to produce net zero GHG emissions by 2050 and to detach economic growth from resource use. In this effort, there is an intermediate goal of reducing 55% of the greenhouse gas emissions by 2030, crystallized in the Fit for 55 package. The Fit for 55 package specifies how each sector of human activities should reduce its emissions and promotes the adoption of several legal measures, in order to succeed in the said ambition. Concerning mar-

itime transport, four are the main new European Regulations and Directives that will alter its business-as-usual operation: (1) the EU Emissions Trading System Directive (extension to maritime transport); (2) the Regulation on the use of renewable and low-carbon fuels in maritime transport (FuelEU Maritime initiative); the (3) Regulation on deployment of alternative fuels infrastructure (AFIR); and, the (4) Energy Taxation Directive (extension to maritime transport). The Regulation most related to ports is the AFIR, which foresees the creation of recharging and refueling stations for alternative fuels in ports, aiming to mitigate the emissions emitted during the stay of the ships in the ports. The above legislation sets the basis to interconnect climate policy with port governance in the EU; this will possibly occur through a systematic policy change initiated within the EU.

3. Policy change: An analytical sketch infused by focusing events and climate change

Policy change is highly associated in the literature with ideas, institutions, advocacy groups, policy learning, etc. (e.g., Béland 2009; Bennett and Howlett 1992). Moreover, there is recent literature concerning policy change published in 2000s (Arts et al. 2006; Capano 2009; Richardson 2000; Schmidt and Radaelli 2004). Additionally, aspects that can be attributed to policy change can be found in several studies that delve into the policy cycle or part of it (see for a literature review Howlett and Cashore 2009).

The literature on policy change can be seen as chaotic and, at the same time, excessively systematic, deep and comprehensive. Various models, factors and mechanisms have been utilized and put forward to explain series of different phenomena in policy changes (Carter and Jacobs 2014; Schmidt 2011; Wilson 2000). This article takes a different point of view and macroscopically explores whether any change is apparent in the EU port policy (or governance) after the adoption of the European Green Deal.

This article is taking the European Green Deal as a focusing event for the evolution of the EU port policy/governance system. The reason for this is that activities related to shipping were not expected to mitigate GHG emissions before the 2018 *Initial Strategy on the Reduction of Greenhouse Gas Emissions from Ships* of the International Maritime Organization. The EU, having committed to it -and in general to climate neutrality-, with the European Green Deal (and the consequent European Climate Law and the Fit for 55 package) set tangible goals for mitigating the carbon footprint of all the activities that take place within the EU. These activities include transportation in general, shipping in particular and, consequently, ports.

Focusing events, according to Alexandrova, 'are sudden, striking, large-scale occurrences that attract political attention' (2015:505). Therefore, one can claim that the adoption of the European Green Deal was a focusing event for the shipping industry at large, which claims that it is the most sustainable transport

mode, emitting significantly less than the others (World Shipping Council 2025). Although focusing events have so far been solely associated to disasters (Birkland 1997), this article deviates from this rationale, by claiming that focusing events can be a well-expected situation that has not borne (significant) results prior to its appearance. Thus, one can expect that the European Green Deal acted as a focusing event which impacted on the evolution of greener port policies. While not a sudden event, it is not frequent to propose an umbrella policy that covers -and expects changes in- all policy fields, and, consequently, introduces noteworthy transformations in the policy cycle of the policies affected. Besides, frequency and impact are also necessary factors for an event to be considered as focusing (Alexandrova 2015).

Coming back to policy change, this article adapts Howlett and Cashore's (2009) figure on the mode and speed of policy change, which is based in two basic concepts, namely, paradigmatic change and incremental change. Similar to definitions given by several scholars (Howlett and Cashore 2009; Mintom and Norman 2009; Wilson 2000), paradigmatic change is defined here as when an abrupt change takes place, that is not expected in the course of a policy's evolution, while incremental change is when a step-by-step approach is applied aiming to minor alterations that will allow for a greater change in the end. Moreover, the figure is complemented by the focusing event concept, which spurs change.

Table 1: Composite model of policy change when focusing events happen.
The table has been based on the work Howlett and Cashore 2009.

Mode of change	Speed of change		Focusing event
	Slow	Fast	
Paradigmatic			When the speed of change is slow , a focusing event makes things move faster. In case no action towards policy change is taking place, a focusing event might lead to either a slow or fast speed of change, in both paradigmatic and incremental modes.
Incremental			

For Mintrom and Norman (2009), incrementalism puts consecutive barriers to major policy changes. They argue that this happens in the name of political stability or risk evasion that would create imbalances both in the policymaking processes and political integrity. Wilson (2000), seconding this argument, claims that incrementalism is the mantra of political stability. It is interesting to note, that scholars who work on policy change, utilize similar literature which mostly

emanates from the policy cycle approach, and use catastrophes as examples (or as factors /mechanisms of change). In this article, as argued above, the change begins from a purposefully adopted policy change which significantly impacts other policies and (potentially) creates multiple venues of change in the latter's notions, ideas, institutions and processes. In the case under examination, this policy change is the climate policy of the EU, which is known to be one of the most comprehensive globally (Dikaïos 2024). The EU climate policy, traditionally, aimed specifically to mitigate GHG emissions in the EU. In 2019, the European Green Deal proposed a holistic approach to decarbonizing the European continent with target measures for the majority -if not all- human activities and to adapting to the negative effects of climate change.

4. EU port and climate policy in European Studies literature

To analyze the potential shift toward a unified EU port policy as a result of growing concerns about climate change in the transport sector, the research is structured into two distinct periods in order to compare the results: 2013-2018 and 2019-2024. The rationale for this specific division is rooted in significant port policy developments: in 2013, the European Commission initiated efforts to specifically enhance port operations and connectivity at 329 key seaports and, in 2019, the adoption of the European Green Deal marked a pivotal moment for the EU, emphasizing the need for decarbonization within the transport sector as well, which includes initiatives focused on EU ports. Moreover, this division is convenient to extract results as it is equal in time (six years each).

As observed earlier, there were no mentions found in the literature regarding EU port policy and its relation to climate change. Therefore, in order to confirm this observation, the first task was to conduct a targeted and comprehensive search in key political science/IR journals, with a special focus in European studies and in particular European policy-making. These journals are the *Journal of European Public Policy*, the *Journal of European Integration*, the *Journal of Common Market Studies*. The analysis involved a thorough evaluation of results across various fields, including titles, authors, keywords, abstracts, affiliations, and funding sources. However, the outcomes of this exploration indicated a significant scarcity of the relevant literature. The terms utilized for the search were, first, "port(s)" and, second, "port climate".

Concerning the term "port" for the period 2013-2018, out of the six articles that were identified using the term in an essential manner, only two articles employed it in both the title and the text, both written by Leiren (2014a; 2014b).

¹ The reasoning for proceeding with researching the terms 'port(s)' and 'port climate' is that the search was focusing on journals of European Studies, so using the term 'EU' leads to redundancy; similarly, the use of the term 'policy' yielded results concerning other EU policies or in general, which diverted the focus from the domain of ports, and as such it was removed.

The one article focused on the ways labour unions opposed a proposed EU port directive in 2000s, within the European decision-making process, while the other extended the research focus also in other transport modes and the post service scrutinizing their liberalization. The rest of them used the term 'port' within their content; nevertheless, the articles were not related to EU port policy or governance, apart from the one by Thomas and Turnbull (2017), which discusses the ways the European Commission attempts to develop a common European ports policy through framing techniques and by using specific language. Crespy and Parks (2017) utilize the proposed port directives as an example to explain opposition within the European Parliament; Kissack's (2015) article explores, among others, the role of ports in implementing maritime labour standards; and Suda (2013) mentions ports in the broader field of transportation security.

Continuing with the results of the 2019-2024 period of the same term -port- five articles were pinpointed that used this term more than twice within the content. Schmidt-Felzmann's (2020) article uses the example from two ports in Sweden to illustrate the overall challenges pertaining to the Russian gas supply through the Baltic Sea. Dyevre and Lampach's (2020) article introduces a new dataset that compiles the geographic coordinates of all courts that have referred cases to the European Court of Justice, and among the potential determinants of judicial participation in the system is the presence of large cargo ports. Freedman (2021) connects ports with the challenge of migrants' and refugees' security. Jarlebring's (2023) empirical part includes the examination of fisheries, where ports are mentioned. Finally, Szabó et al. (2022), about ten years after Leiren (2014a; 2014b), write again on the port services directive and liberalization.

It is also important to mention that more than 35 articles were identified that used the word "port" within their text (12 during the period 2013-2018; 23 during 2019-2024); however, the references were fewer than two or three and mainly included specific port countries, without essential policy implications.

Regarding the term "port climate", results were found only in articles from the period 2019-2024 and in two of the three journals under consideration, i.e., the *Journal of European Public Policy* and the *Journal of Common Market Studies*. In particular, three articles were identified. Specifically, the article by Turner et al. (2020) presents the strongest link between the two subjects, as it mentions the potential use of carbon capture and why it is progressing in specific European industrial centers, like the Port of Rotterdam. Proedrou (2019) in his last paragraph mentions the same Port as the way forward for climate/energy transition, while Badell and Rosell (2021) test whether EU institutions are still green actors, including towards their multiple variables ports.²

Thus, none of the results in either period or from either search has pointed to articles that examine EU port policy and specifically connect it with the subject of climate change.

² There is also the article of Zhang and Wang (2019), which explores how social media affect public opinion, which mentioned a single port incident, while the article tested -independently to the port mentioned- climate events.

Lastly, to further broaden the scope of the research, the JSTOR database was included focusing on political science literature published in English during the abovementioned periods. This search was restricted to titles, abstracts, and captions to manage the volume of results efficiently. Despite these limitations, our exploration of the terms “European Union” AND “Port Policy” and “European Union” AND “Port Policy” AND “Climate Change,” yielded no relevant results.

5. EUR-Lex

As the research on secondary literature did not bear any fruits, in order to expand the data of this empirical part, a quantitative methodology was employed, utilizing EUR-Lex in order to search port regulations adopted between 2013 and 2024, following the same division of time, i.e., 2013-2018 and 2019-2024. The following Table (2) presents the information gathered, which is analyzed right after:

Table 2: EUR-Lex results of the terms 'port(s)' and 'port climate'

Term	Year	Results of documents	Results of documents by author (i.e., European Commission ³)
"port(s)"	2013	763	359
	2014	740	286
	2015	582	222
	2016	864	293
	2017	815	287
	2018	966	297
		= T: 4,730	= T: 1,744
	2019	1002	389
	2020	795	330
	2021	1076	421
	2022	1010	346
	2023	1158	448
	2024	803	321
		= T: 5,844	= T: 2,255

³ The European Commission is selected to be mentioned in this Table as it was the author with the highest number of documents.

Term	Year	Results of documents	Results of documents by author (i.e., European Commission)
"port climate"	2013	292	133
	2014	283	111
	2015	190	74
	2016	267	108
	2017	276	111
	2018	334 =T: 1,642	122 =T: 659
	2019	346	171
	2020	328	157
	2021	504	219
	2022	372	156
	2023	612	258
	2024	298 =T: 2,460	135 =T: 1,096

Between 2013 and 2018, EUR-Lex identified a total of 4,730 documents that included the terms "port(s)" in their titles or content, and 5,844 in the subsequent period between 2019 and 2024. This is an overall increase of about 23%. Within these documents, the ones which included both the terms "port" and "climate", saw a respective increase comparing the two periods: during the first one 1,642 documents were identified, while in the second period the number was 2,460. This is an increase of about 50%.

Complementary, it is important to note that in both searches, i.e., 'port(s)' and 'port climate', the author with the most documents recorded was the European Commission, particularly in the second period between 2019-2024. More specifically, the percentage of the overall documents generated by the European Commission during 2013-2018 were about 36,9% for the term 'port' and 40,1% for the terms 'port climate', while for the period 2019-2024 the respective numbers were 38,6% and 44,6%.

During the same period (not depicted in Table 2, but an interesting aspect to note), there was also a noticeable increase in the adoption of these documents through the Non-legislative Procedure (NLE) rather than through the Ordinary Legislative Procedure (COD), which is also very well known in the European jargon as codecision. According to the EU law, the NLE refers to non-legislative acts

that take place interinstitutionally, including delegated and implementing acts, adopted usually by the European Commission or the Council of the European Union, in order to elaborate on a legislative act (European Commission 2025b).

6. Discussion, conclusion and the way forward

The empirical data from the EUR-Lex dataset strongly suggests that indeed there is a turn in the EU port governance, incorporating more and more climate policy's targets. It also suggests that more focus on ports is given in the European policy-making processes. The data found in scholarly literature is scarce and cannot constitute for strong arguments, but a slight turn can be observed, mainly in a growing interest of the role on the ports from a political science/IR perspective. The connection with climate change policy comes eclectically, usually utilizing ports as an example, among others, to showcase climate policy developments. This turn can be attributed to the European Green Deal and the growing literature on the EU climate policy (e.g., Badell and Rosell 2021; Proedrou 2019; Turner et al. 2020). Prior to 2019, no articles combining the two subjects were found.

Although the overall results do not offer solid foundations for a deep analysis, there are some analytical conclusions that can be drawn. More specifically, paradigmatic and incremental changes cannot always explain changes because they explain the internal process of the policy change, while a focusing event comes to explain a reason that potentially leads to policy change. Incorporating focusing events in the policy cycle process, without the former being catastrophes or disasters as the theory suggests, might be applied as an interesting explanatory factor for the changes that are due to take place in the period of poly-crisis, where phenomena that are already governed (either super-regulated such as climate change or newly-regulated such as, e.g., artificial intelligence), have severe impacts on policies that they were well-established up until now and had their own processes. This is what usually is called in the literature -ization (climatization, securitization, etc.). In the case under examination, namely the EU port governance, policy changes stemming from the need to decarbonize the port sector and to adapt to climate change, might lead to the development of a coherent port policy which has not managed yet to crystallize. Therefore, the European Green Deal can be considered as a focusing event on this case, if we take into account the increase of relevance both in the literature and the European legislation. The latter, as a stronger indication, suggests that the development of the European port policy -if it eventually and gradually takes place- will possibly go through its climatization, i.e., incorporating climate targets (emanating from the overall EU climate policy) to its goals.

Therefore, although through paradigmatic and incremental changes one can understand the processes that (will) allow for the EU port governance to become climatized, they will not explain how and why this change came to the fore. The reason for this is this, especially in the present case study, is that a different policy -not directly connected to ports- grows robust enough to be able

to broadly influence other policies as well. This is not due to an abrupt event or a step-by-step approach that takes place within the ports' governance system, but due to an external situation that puts pressure on the former. Thus, to better understand the complexities of the policy change, there has to also be a comprehension of the 'focusing event', as we identified it here, that leads to this change. Moreover, the 'focusing event' might also lead to the paradigmatic and the incremental changes to happen concurrently, empowering one another.

Some questions that arise from the analysis at hand and open future research paths are: What was the role of the European Green Deal as a focusing event on this case? Did it allow for a paradigmatic change that altered the course of the EU port policy at once and for the foreseeable future to be more sustainable-oriented, or did it open the road for incremental changes to start building up, although the goals for decarbonizations are sooner than this mode will achieve? These questions can only be answered in the future, after an EU port policy has been better founded. It is also worth to note that the results from EUR-Lex highlight a situation that is prevalent in other policy changes that have to do with the climatization of the broader maritime /shipping policy, namely the role of the European Commission as a pioneer of this process (Dikaïos 2024). Additionally, the augmentation of the NLE highlights a potential stronger supranationalization of the subject.

Validating to the incoming trend of climatization of the EU port policy are the changes happening in the legislation, mentioned briefly in the Introduction. More specifically, following the adoption of the European Green Deal in 2019 and the legislative initiatives outlined in the Fit for 55 package, there has been a significant focus on alternative fuels and energy efficiency in port infrastructure from 2019 to 2024. These measures reflect an overarching trend toward the greening of shipping, which subsequently fosters the development of sustainable infrastructure for alternative fuels within port services. The latter has also been confirmed by the latest Environmental Report of the European Sea Ports Organization (ESPO), published in 2024, which indicates that from 2020 to 2024, climate change ranks either first or second among the top ten environmental priorities of the port sector (ESPO, 2024). Notably, the introduction of the Fuel EU Maritime Regulation in 2023 significantly enhances the production and adoption of sustainable, low-carbon fuels in maritime transport. It also mandates that vessels utilize On-shore Power Supply (OPS), thus positioning ports as essential facilitators in this transition (Jacobs 2022). According to the 2024 ESPO Report, the OPS system -recognized as one of the three principal green services offered by ports-⁴ enables ships to connect to the electricity grid while docked, thereby presenting substantial opportunities to mitigate the environmental impact of maritime operations. Furthermore, the new Regulation on the Deployment of Alternative Fuels Infrastructure (AFIR) (Regulation 2023/1804), which repeals Directive 2014/94 on Clean Power Transport, is designed to ensure minimum infrastructure requirements to support the uptake of alternative fuel vehicles across all transport modes in EU Member States, aligning with the EU's

⁴ The other two are Liquefied Natural Gas bunkering facilities and Environmental Differentiated Port Fees (ESPO, 2024).

climate objectives (European Commission, 2024a). Finally, Regulation 2024/1679, which revises the Trans-European Transport Network (Ten-T) policy originally instituted in 2013 and identifies ports as key nodes in the transport network, seeks, upon a more robust framework, to diminish the environmental and climate impact of transportation while enhancing the safety and resilience of the network (European Commission, 2024b). All these can work as starting points for further and more elaborate research into the politics, policy-making and other political phenomena of the (EU) port policy.

To conclude, the EU port policy can also offer insights to regional integration. As, traditionally, ports are mainly governed at the EU Member State level, the codification of new common rules for ports, will create the necessary conditions to lead to a case of European port integration. This, as mentioned earlier, failed in the 2000s and no significant steps have been taken since then. Nowadays, climate change policy might offer the path to bring back to life a neglected for many years policy field. The scarcity of political science literature on EU port policy underscores the nascent state of this area of study. Nevertheless, the analysis indicates a marked trend toward a more proactive and assertive role of the EU in the management and governance of port infrastructures, particularly concerning the challenges posed by climate change, while the introduction of the Fit for 55 package may signify the inception of a concerted effort toward a unified EU port policy. In conclusion, while the current literature may be limited, the evolving dynamics of climate policy present an opportunity for the EU to redefine its role in the port sector, facilitating a transition towards sustainability while addressing the challenges posed by climate change.

References

- Alamouh, A. S., Ölçer, A. I. and Ballini, F. (2022) 'Ports' role in shipping decarbonisation: A common port incentive scheme for shipping greenhouse gas emissions reduction'. *Cleaner Logistics and Supply Chain*, vol. 3, article no. 100021.
- Alexandrova, P. (2015) 'Upsetting the agenda: The clout of external focusing events in the European Council'. *Journal of Public Policy*, vol. 35, no. 3, pp. 505-530.
- Arts, B., Leroy, P. and van Tatenhove, J. (2006) 'Political modernisation and policy arrangements: A framework for understanding environmental policy change'. *Public Organizations Review*, vol. 6, no. 1, pp. 93-106.
- Badell, D. and Rosell, J. (2021) 'Are EU institutions still green actors? An empirical study of green public procurement'. *Journal of Common Market Studies*, vol. 59, no. 6, pp. 1555-1572.
- Becker, A., Ng, A. K. Y., McEvoy, D. and Mullett, J. (2018) 'Implications of climate change for shipping: Ports and supply chain'. *WIREs Climate Change*, vol. 9, no. 2, article no. e508.

- Béland, D. (2009) 'Ideas, institutions, and policy change'. *Journal of European Public Policy*, vol. 16, no. 5, pp. 701-718.
- Bennett, C. J. and Howlett, M. (1992) 'The lessons of learning: Reconciling theories of policy learning and policy change'. *Policy Sciences*, vol. 25, pp. 275-294.
- Birkland, T. A. (1997) *After Disaster: Agenda Setting, Public Policy, and Focusing Events* (Washington, D.C.: Georgetown University Press).
- Capano, G. (2009) 'Understanding policy change as an epistemological and theoretical problem'. *Journal of Comparative Policy Analysis: Research and Practice*, vol. 11, no. 1, pp. 7-31.
- Carter, N. and Jacobs, M. (2014) 'Explaining radical policy change: The case of climate change and energy policy under the British Labour Government 2006-10'. *Public Administration*, vol. 92, no. 1, pp. 125-141.
- Crespy, A. and Parks, L. (2017) 'The connection between parliamentary and extra-parliamentary opposition in the EU. From ACTA to the financial crisis'. *Journal of European Integration*, vol. 39, no. 4, pp. 453-467.
- Devendran, L., Menhat, M., Hanafiah, R., Md., Yatim, N. I., Ali, N. and Zaideen, I. M. M. (2023) 'Adapting to the impacts of climate change on port operation'. *Australian Journal of Maritime & Ocean Affairs*, vol. 15, no. 2, pp. 107-126.
- Dikaïos, G. (2024) *EU Climate Diplomacy towards the IMO and ICAO* (Cham: Palgrave Macmillan).
- Dyevre, A. and Lampach, N. (2021) 'Subnational disparities in EU law use: Exploring the GEOCOURT dataset'. *Journal of European Public Policy*, vol. 28, no. 4, pp. 615-631.
- ESPO (2024) *ESPO Environmental Report 2024: EcoPorts in Sights 2024* (Brussels: European Sea Ports Organisation).
- European Commission (2025a) *Maritime*. https://transport.ec.europa.eu/transport-modes/maritime_en (last accessed: 7 January 2025).
- European Commission (2025b) *Non-legislative Procedures*. <https://eur-lex.europa.eu/EN/legal-content/glossary/non-legislative-procedures.html> (last accessed: 7 January 2025).
- European Commission (2024a) *Alternative Fuels Infrastructure Regulation*. https://transport.ec.europa.eu/transport-themes/clean-transport/alternative-fuels-sustainable-mobility-europe/alternative-fuels-infrastructure_en (last accessed: 22 November 2024).
- European Commission (2024b) *European Transport Network (Ten-T)*. https://transport.ec.europa.eu/transport-themes/infrastructure-and-investment/transport-european-transport-network-ten-t_en (last accessed: 22 November 2024).

- European Commission. (2024c). *Ports*. https://transport.ec.europa.eu/transport-modes/maritime/ports_en (last accessed: 22 November 2024).
- Freedman, J. (2021) 'Immigration, refugees and responses'. *Journal of Common Market Studies*, vol. 59, no. S1, pp. 92-102.
- Howlett, M. and Cashore, B. (2009) 'The dependent variable problem in the study of policy change: Understanding policy change as a methodological problem'. *Journal of Comparative Policy Analysis: Research and Practice*, vol. 11, no. 1, pp. 33-46.
- Izaguirre, C., Losada, I. J., Camus, P., Vigh, J. L. and Stenek, V. (2021) 'Climate change risk to global port operations'. *Nature Climate Change*, vol. 11, pp. 14-20.
- Jacobs, K. (2022) 'At a Glance: European ports becoming 'fit for 55''. *European Parliamentary Research Service*, PE 729.395.
- Jarlebring, J. (2023) 'Blacklisting and the EU as a global regulator: The institutionally predisposed norm breaker'. *Journal of Common Market Studies*, vol. 61, no. 4, pp. 1007-1025.
- Kissack, R. (2015) 'Man Overboard!' Was EU influence on the Maritime Labour Convention lost at sea?. *Journal of European Public Policy*, vol. 22, no. 9, pp. 1295-1315.
- León-Mateos, F., Sartal, A., López-Manuel, L. and Quintás, M. A. (2021) 'Adapting our sea ports to the challenges of climate change: Development and validation of a Port Resilience Index'. *Marine Policy*, vol. 130, article no. 104573.
- Leiren, M. D. (2014a) 'Scope of negative integration: A comparative analysis of post, public transport and port services'. *Journal of Common Market Studies*, vol. 53, no. 3, pp. 609-626.
- Leiren, M. D. (2014b) 'The role of labour and associated EU liberalization challenges: Insights from the port sector'. *Journal of European Integration*, vol. 36, no. 2, pp. 152-169.
- Mintrom, M. and Norman, P. (2009) 'Policy entrepreneurship and policy change'. *The Policy Studies Journal*, vol. 37, no. 4, pp. 649-667.
- Monios, J., Wilmsmeier, G., Tello, G. A. M., Pomaska, L. (2024) 'A new conception of port governance under climate change'. *Journal of Transport Geography*, vol. 120, article no. 103988.
- Pallis, A. A. (2006). 'EU port policy: Implications for port governance in Europe'. *Research in Transportation Economics*, vol. 17, pp. 479-495.
- Proedrou, F. (2019) 'Behind the EU's energy and climate policy conundrum: Erroneous power toolbox, deadlocks and the way forward'. *Journal of Common Market Studies*, vol. 58, no. 2, pp. 402-418.

- Puig, M., Azarkamand, A., Wooldridge, C., Selén, V., Darbra, R. M. (2021) 'Insights on the environmental management system of the European port sector'. *Science of the Total Environment*, vol. 806, no. 2, article no. 150550.
- Richardson, J. (2000) 'Government, interest groups and policy change'. *Political Studies*, vol. 48, pp. 1006-1025.
- Schmidt, V. A. (2011) 'Speaking of change: Why discourse is key to the dynamics of policy transformation'. *Critical Policy Studies*, vol. 5, no. 2, pp. 106-126.
- Schmidt, V. A. and Radaelli, C. M. (2004) 'Policy change and discourse in Europe: Conceptual and methodological issues'. *West European Politics*, vol. 27, no. 2, pp. 183-210.
- Schmidt-Felzmann, A. (2020) 'Gazprom's Nord Stream 2 and diffuse authority in the EU: Managing authority challenges regarding Russian gas supplies through the Baltic Sea'. *Journal of European Integration*, vol. 42, no. 1, pp. 129-145.
- Suda, Y. (2013) 'Transatlantic politics of data transfer: Extraterritoriality, counter-extraterritoriality and counter-terrorism'. *Journal of Common Market Studies*, vol. 51, no. 4, pp. 772-788.
- Szabó, I. G., Golden, D. and Erne, R. (2022) 'Why do some labour alliances succeed in politicizing Europe across borders? A comparison of the Right2Water and Fair Transport European Citizens' Initiatives'. *Journal of Common Market Studies*, vol. 60, no. 3, pp. 634-652.
- Thomas, R. and Turnbull, P. (2017) 'Talking up a storm? Using language to activate adherents and demobilize detractors of European Commission policy frames'. *Journal of European Public Policy*, vol. 24, no. 7, pp. 931-950.
- Turner, K., Alabi, O. and Race, J. (2020) 'Nudging policymakers: A case study of the role and influence of academic policy analysis'. *Journal of European Public Policy*, vol. 27, no. 8, pp. 1270-1286.
- van Leeuwen, J. (2015). 'The regionalization of maritime governance: Towards a polycentric governance system for sustainable shipping in the European Union'. *Ocean & Coastal Management*, vol. 117, pp. 23-31.
- Verhoeven, P. (2009) 'European ports policy: Meeting contemporary governance challenges'. *Maritime Policy and Management*, vol. 36, no. 1, pp. 79-101.
- Wilson, C. A. (2000) 'Policy regimes and policy change'. *Journal of Public Policy*, vol. 20, no. 3, pp. 247-274.
- World Shipping Council (2025) Sustainable Shipping. <https://www.worldshipping.org/sustainable-shipping> (last accessed: 7 January 2025).
- Zhang, L. and Wang, P. (2022) 'Public attitude and opinion leaders: Mapping Chinese discussion of EU's energy role on social media'. *Journal of Common Market Studies*, vol. 60, no. 6, pp. 1777-1796.