

Article

The Role of Strategic Autonomy in the EU Green Transition

Susanna Paleari 

IRCrES (Research Institute on Sustainable Economic Growth)—CNR (National Research Council of Italy), Via Corti, 12, 20133 Milan, Italy; susanna.paleari@ircres.cnr.it

Abstract: The European Green Deal (EGD) is the cornerstone of a strategic package (EGD Strategic Framework; EGDSF), which aims to make the EU a climate-neutral and competitive economy by 2050. The green transition planned by the EGD has been affected by relevant external shocks, which have highlighted Europe's vulnerabilities in key strategic sectors. In this context, EU strategic autonomy (SA) has increasingly become a recurring element of the EGDSF. This article aims to provide a better understanding of the role of SA within the EGDSF and investigate whether it supports the EGD's environmental ambitions. Based on an in-depth qualitative analysis of the EGDSF, it examines the specific purposes that, via SA, the EU wants to achieve and provides a categorisation of the related implementation measures. It emerges that SA objectives embedded into the EGDSF have been shaped in support of EGD goals but that some trade-offs may arise depending on the implementation measures selected to meet the former. In particular, current measures that promote self-sufficiency and the extension of environmental requirements to foreign businesses/products accessing the EU market raise some environmental, economic, and social concerns, which can be partly addressed through a stronger and more comprehensive EGD external dimension.

Keywords: strategic autonomy; green transition; European Green Deal

1. Introduction

The European Green Deal (EGD) [1] is the cornerstone of a comprehensive strategic package (EGD Strategic Framework—EGDSF), which aims to transform the EU into a fair and prosperous society with a modern, resource-efficient, and competitive economy where there are no net emissions of greenhouse gases (GHG) in 2050 and where economic growth is decoupled from resource use. The achievement of the EGD ambition requires the development of deeply transformative policies, with wide effects on the whole economy and society.

The green transition planned by the EGD has been affected by several external shocks (the COVID-19 pandemic, Russia's invasion of Ukraine, and the subsequent energy crisis), which have highlighted Europe's vulnerabilities in key strategic sectors and have resulted in the adoption of dedicated recovery policies [2]. In this context, also characterised by the increasing tendency of major powers, such as China, the US, and India, to self-reliance and protectionism [3–6], the debate about EU strategic autonomy (SA) has received renewed attention, and SA has become a recurring element of the EGDSF. SA was officially mentioned for the first time, at the EU level, by the European Council conclusions on common security and defence policy of December 2013 [7]. Since 2020, the scope of EU SA has been widened to virtually all policy areas, while the expression has often been qualified by the adjective 'open' or replaced by its multiple correlated 'derivations', such as 'strategic sovereignty', 'resilience', 'capacity to act', etc. [3]. Although SA is currently defined in different and evolving ways [8,9], it may be broadly interpreted as the EU's ability to decide and act, free of foreign interference, in accordance with its rules, principles, and values [3,10–12]. These undoubtedly include environmental protection, which has progressively moved in EU treaties from being a sectoral policy to one of the core, transversal principles of the EU legal order [13] and, according to the EGD, a fundamental driver of economic growth [1].



Citation: Paleari, S. The Role of Strategic Autonomy in the EU Green Transition. *Sustainability* **2024**, *16*, 2597. <https://doi.org/10.3390/su16062597>

Academic Editor: Eran Feitelson

Received: 15 January 2024

Revised: 7 March 2024

Accepted: 14 March 2024

Published: 21 March 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

SA is becoming a substantial issue in the green transition and cannot be any more relegated to the sphere of rhetorical concepts. The present paper focuses on the role of SA within the EGDSF. Based on an in-depth qualitative analysis of the EGDSF policy design, it investigates the objectives that, via SA, the EU wants to achieve in the green transition and the related implementation measures. The ultimate purpose of the work is to identify the main potential frictions between SA and EGD goals and suggest possible ways to reduce them. Overall, it emerges that SA objectives embedded into the EGDSF have been shaped in support of EGD goals but that some trade-offs may arise depending on the implementation measures selected to meet the former. In particular, current measures aimed at improving the resilience of strategic supply chains by promoting self-sufficiency and the extension of environmental requirements to foreign businesses and products accessing the EU market raise some environmental, economic, and social concerns and should be used on a case-by-case basis, preserving market openness. A stronger and more comprehensive EGD external dimension that is not limited to the projection of the EU domestic environmental strategies into multilateral/bilateral cooperation but also addresses all the external and geopolitical consequences of these strategies may help to manage some of the above-mentioned concerns.

The present work contributes to improving existing knowledge about the operationalisation of SA in a relatively new area of application, namely environmental policy, which, as highlighted by the literature review in Section 2, is still quite an unexplored topic. Moreover, this result is not achieved via case studies but by systematically examining how SA is translated into the EGDSF, i.e., the EGD and the about 30 strategic documents already published by the European Commission accordingly.

The remainder of the article is structured as follows. Section 2 provides a short literature review, focusing on the area of research covered by the article. Section 3 describes the materials and methods used for analysis. Section 4 illustrates the results of the research work, which are then discussed in Section 5, while Section 6 concludes.

2. Literature Review

As SA is an evolving and ambiguous concept, scholars have tried to reconstruct its meaning based on political/institutional declarations by the EU and the Member States [9,12,14]. Recently, the European Parliamentary Research Services [15] (p. 3) defined SA as ‘the capacity of the EU to act autonomously (that is, without being dependent on other countries) in strategically important policy areas’. Moreover, SA has been compared with similar notions. In particular, the relationship between SA and strategic sovereignty has been interpreted in different ways [11,16–19], while academics have taken more similar views on what the ‘open’ component adds to SA. This adjective indeed highlights that the twin aims of achieving SA and preserving an open economy are not incompatible, although characterised by an inherent tension [20]. Open SA may therefore be described as a balancing act on a spectrum ranging from absolute self-sufficiency or autarky to full dependence [21,22].

Several research works investigate the reasons behind the rise of the EU SA and its implications. The current geopolitical landscape and the crisis of the liberal international order, which make EU countries especially vulnerable to external pressures, threatening EU security, economic health, and freedom of action, have been identified as key explicative factors [23,24]. Although in this context (open) SA is often stated as a need [18,19,23], it has also been recognised that it involves risks and trade-offs, such as further fragilising multilateralism, higher barriers for cross-border trade and investment (with negative impacts especially on developing countries), wider divisions within the EU and undue concentration of power within the single market [8,18,25,26].

Another issue that has been discussed by scholars is how to make SA operative. In general, advancing in EU political autonomy is underlined as a fundamental enabler [17,23], and suggestions have been made to improve the EU’s own capacity for SA while preserving ‘openness’. These include, e.g., expanding the EU trade defence toolbox while

making it compliant with WTO and institutionalise its ‘last resort nature’; maintaining fair competition within the single market; strengthening alliances with like-minded partners; and fostering a strong, fair, and rules-based multilateral trading system [20,25]. However, proposed changes and recommendations also depend on the policy area under scrutiny. Indeed, it has been observed that (open) SA is not an end in itself and that a critical reflection on how to turn this concept into concrete action cannot avoid questions about the specific objectives that via SA are pursued, the capacities needed to achieve them, and the dependencies from which autonomy is sought [11,27]. Purposes, dependencies, and capacities may vary across policy areas.

The progressive extension of the scope of EU (open) SA has been widely studied. There is a growing research interest in security and defence policy, i.e., the realm from which SA originates [11,28–30]. But scholars have also analysed the application of (open) SA to further policy areas that have security implications, mainly trade [14,20,24,31,32], strategic technologies and digitalisation [11,33–35], and energy [9,36].

A few works specifically focus on the role of SA within the green transition, arguing that ‘the environmental dimension constitutes a key aspect of open SA on an equal footing with the geopolitical, technological, and social spheres’ [37] (p. 3) and that a SA approach is already enshrined, to a certain extent, in the EGD [38]. This topic is increasingly attracting EU institutions’ attention [15,39,40]. Moreover, a part of the abundant literature on the EGD [41] already addresses issues that are critical to the (open) SA discourse. Several works on the energy transition and climate mitigation investigate the related geopolitical repercussions, including the problem of technological and critical raw materials dependency; the impact on third countries of specific EGD measures, such as the Carbon Border Adjustment Mechanism (CBAM); and the social factors (for instance energy poverty and skills shortage) that may influence global strategic decision [42–49]. Other researchers analyse the so-called EGD external dimension and examine the measures aimed at decreasing the EU’s contribution to the global ecological footprint and those to promote international cooperation to achieve the ambitions of the Paris Agreement and the 2030 Agenda [50–52]. In this context, the need for a more integrated external dimension, able to manage all the geopolitical issues raised by the EGD (both those having a competitive and cooperative nature), is often stated [53,54].

3. Materials and Methods

In this paper, the expression ‘SA’ is understood as the EU’s ability to decide and act, free of foreign interference, in accordance with its rules, principles, and values [3,10–12], and it is used hereinafter to make reference to both ‘strategic autonomy’ and its correlated terms (such as ‘open strategic autonomy’ and ‘strategic sovereignty’). All these expressions are considered interchangeable, although they are generally interpreted in different ways. In particular, ‘sovereignty’ is conceived as a more comprehensive concept than ‘autonomy’ (which has been originally linked to security and defence) [14,18,22,28], while ‘open’ has been later added to ‘autonomy’, as the latter elicits fears of unilateralism and autarky [20,27,55,56].

In order to investigate the role of SA within the green transition, an in-depth qualitative analysis has been carried out of the EGDSF, i.e., the EGD and the about 30 strategic documents already published by the European Commission accordingly (the full list of the documents that have been examined is provided by Table 1). The methodology that has been applied is illustrated by Figure 1.

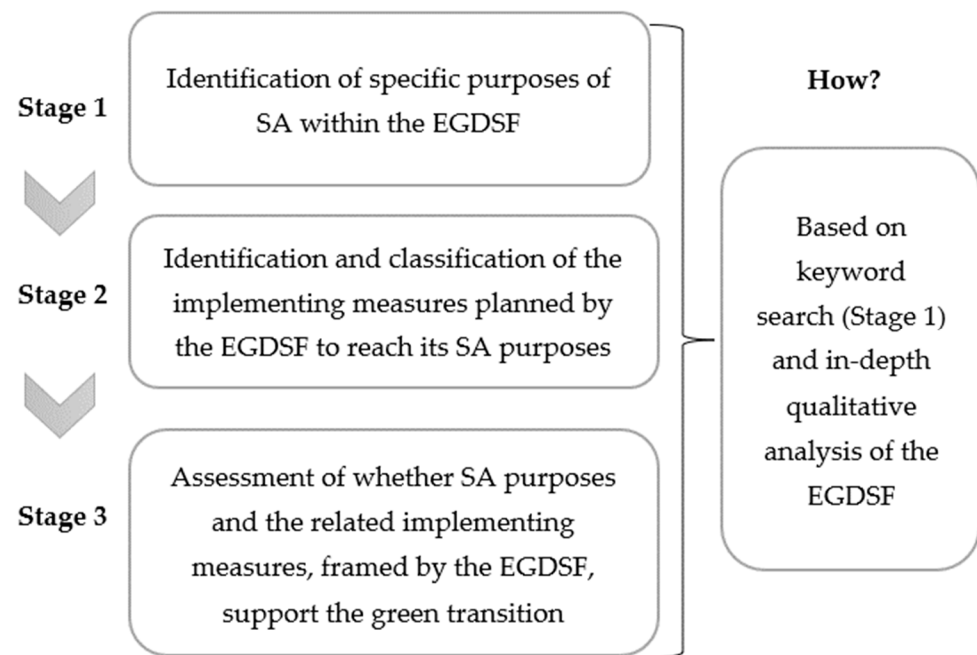


Figure 1. Methodology.

Based on the analytical framework developed by Fiott [11], the following questions have been addressed:

- Given that SA is not an end in itself [27], which are the specific purposes that, via SA, the EU strives to achieve in the green transition?
- How is SA being operationalised? What kind of policy measures have been planned by the EGDSF and are being adopted to reach the desired autonomy?

To answer the question on SA purposes, the EGDSF was screened to single out the strategic documents that embed an SA aspiration and to identify the objectives connected to such an aspiration. This task was performed, as a starting point, via a keyword search. Keywords that have been searched in the documents belonging to the EGDSF are the following: autonomy, sovereignty, self-sufficiency, resilience, vulnerability, security, dependence/independence, and diversification/concentration. Also, words (such as adjectives or verbs) drawn from the above-mentioned keywords were taken into account. Keyword search was complemented by a broader qualitative assessment of the EGDSF. The latter was useful to both refine the former (leaving out records that were not really linked to SA) and to take into account the implicit relationships between the EGDSF and SA. Within the EGDSF, three specific SA objectives were detected, namely the following:

1. Enhancing the resilience of supply chains that are key to the green transition, especially by making them less dependent on imports from third countries and less exposed to the related geopolitical risks. This objective pertains to the idea of SA as a spectrum that represents different degrees of autonomy and dependency [11].
2. Promoting environmental protection and resilience beyond EU borders. Climate change and environmental degradation pose challenges (e.g., conflicts, food insecurity, changes in the availability of critical assets, population displacement, and forced migration) likely to influence almost any initiative on SA [37]. Moreover, the lack of environmental commitment/results by third countries could undermine the EU's efforts in the face of global environmental problems, with potentially severe economic and social consequences both within and outside the EU. Since all EGDSF documents plan environmental actions, this work only focuses, from an SA perspective, on those measures that are specifically aimed at reducing environmental degradation and increasing resilience to environmental risks in third countries.

3. Ensuring a level playing field (firstly on the EU market) for EU businesses and products that must comply with environmental requirements. This objective reflects the European model of economic growth, which is based on ‘sustainable competitiveness’ [57] and the fact that the EGD is, at the same time, a growth and environmental strategy [1]. ‘Green’ EU business/products are needed to accelerate the EGD transition, but if they are not competitive, EU dependence on third countries will increase.

The questions concerning the operationalisation of SA were addressed by preparing an inventory of the most important implementation measures that the EGDSF has scheduled to reach its SA objectives. Relevant legislative proposals of the European Commission were also considered. In the first place, implementation measures were classified into three groups according to the SA objective they mainly serve. A single EU initiative may, indeed, support the achievement of several SA goals (which are, in turn, interrelated). For instance, bilateral and regional cooperation initiatives often aim to meet multiple objectives, which can e.g., include the promotion of environmental protection and the opening up of new markets to diversify EU’s imports of strategic materials/technologies. Secondly, implementation measures belonging to the same group were further classified into different types, as illustrated by Table 2. With regard to the measures that, under objective 1, contribute to reducing dependences on imports, only environmental measures that have a direct impact on the import by the EU of critical materials, products, and technologies were taken into account.

As a last step of the research process, it was discussed whether the specific SA objectives and the related implementation measures stated within the EGDSF support the EGD’s environmental ambitions by highlighting the most relevant synergies and trade-offs. Possible ways to manage trade-offs are also suggested (see Section 5).

The analysis is updated to July 2023. Part of the work is related to the activities of the European Topic Centre on Circular Economy and Resource Use (ETC/CE), funded by the European Environment Agency under a framework agreement for the period 2022–2026.

4. Results

4.1. SA Objectives within the Green Transition

Based on a keyword search beyond the EGD, 14 policy documents belonging to the EGDSF have been found to explicitly set a SA aspiration. Further, 13 documents implicitly embed SA objectives as they plan measures to achieve them (see Table 1).

Overall, about two-thirds of the above documents establish the goal of enhancing the resilience of supply chains that are key in the green transition, especially by making them less dependent on imports from third countries and less exposed to the related geopolitical risks. The underlying assumption is that the greater the dependency on specific strategic sectors, the more vulnerable and unable the EU is to pursue its environmental interests [58]. EGDSF documents setting this goal include, e.g., the main EGD energy strategies [59–61], the strategies concerning energy-intensive sectors (such as transport, textiles, and fisheries) [62–64], as well as the Action Plan on critical raw materials (CRMs) [65]. The EU currently imports 60% of its energy [66]. Boosting renewables while contributing to climate neutrality is expected to shift dependencies: dependence on the import of fossil fuels will be reduced, while there will be more in strategic materials and technologies (e.g., for the production of batteries and electric vehicles) with respect to which the EU is generally a net importer [37]. This is why, according to the European Commission, for both environmental and security reasons, Europe should have more SA, in particular when the sources of supply (as for some CRMs) are highly concentrated and at high risk of supply disruption [65]. Moreover, ensuring the security of supply is also a core objective of the Farm to Fork Strategy, addressing food systems [67] and of the Chemicals Strategy for Sustainability [68], which underlines that SA should be aimed mainly at those chemicals that have fundamental uses for our health and for achieving a climate-neutral and circular economy (CE).

The EGD has a strong external dimension, which will be crucial for its implementation. Most EGDSF documents, therefore, contain chapters on global issues and schedule actions beyond EU borders, e.g., [67,69–71]. This relates to SA in different ways. According to the Treaty on the European Union (Art. 3 par. 5), sustainable development is among the key values and interests that the EU should uphold and promote in the wider world. There are several global problems, such as climate change and biodiversity loss, which cannot be solved by the EU acting alone. Moreover, environmental and climate risks, wherever they take place, may have security implications for the EU by affecting the availability of water, food, and resources; worsening existing socio-economic inequalities; and generating cascading and spillover effects on trade and migration. The EU Strategy on adaptation to climate change, for instance, recognises that international climate resilience is not only a matter of solidarity but also of SA [70].

Ensuring a level playing field for EU businesses and products that must comply with environmental requirements is a third SA objective embedded in about half of the EGDSF documents, see, e.g., [62,72–74], which mainly focus on the EU market. In order to protect the environment, the EU needs to set environmental regulatory and economic measures within its borders, but to safeguard its interests, it should also be able to preserve the competitiveness of its companies implementing those measures (otherwise, EU vulnerability and dependency on third countries will increase). It is worth pointing out that EU interventions aimed at supporting international competition and reciprocity are also often promoted outside the EGDSF. These actions, however, are not analysed by the present work.

The three above-mentioned SA objectives are strongly interlinked. For instance, ensuring a level playing for EU companies can also be achieved via external action (e.g., by promoting more stringent environmental policies/standards at the international level), and it is pivotal to strengthening the EU manufacturing capacity of critical emerging technologies and materials (making the related value chains more resilient).

4.2. Measures Implementing SA Objectives

Many measures have been scheduled by the EGDSF to achieve its SA ambitions. The present section provides an overview of these measures, which have been grouped according to the SA objective they mainly serve and then classified into different types (as reported by Table 2). Obviously, implementation measures are different in nature, also depending on the corresponding SA purpose. For instance, most of the measures promoting environmental protection in third countries belong to the so-called ‘Green Deal diplomacy’, focused on convincing/supporting others to take on their share in the green transition [1]. Instead, environmental requirements are mainly applied to imported products and to certain foreign companies accessing the EU market via regulatory (e.g., product-making requirements) and economic (e.g., the Carbon Border Adjustment Mechanism; CBAM) [75] tools.

4.2.1. Measures to Enhance the Resilience of Value Chains That Are Key in the Green Transition

Measures to Reduce the Dependence on Imports from Third Countries

The first set of EGDSF measures aims to increasing the domestic sourcing/processing of critical resources and the production of strategic goods/technologies. The proposed CRMs Act [76] and the Net-Zero Industry Act (NZIA) [77] play a key role in this regard. The former establishes domestic capacities targets (at least 10% of the EU’s annual consumption for extraction and 40% of the EU’s annual consumption for processing) to be achieved by 2030 and, with the aim of accelerating them, introduces an EU time limit to the issuing of permits for relevant industrial projects. The latter identifies ‘strategic’ net-zero technologies, sets a benchmark for their manufacturing capacity to meet at least 40% of the EU’s annual deployment needs by 2030, and introduces a 2030 target for spurring the development of carbon capture and storage technologies. To reach these targets, the NZIA shapes a governance system based on the selection by Member States of Net-Zero Strategic Projects,

which, *inter alia*, have to be granted priority status at the national level and fast-tracked in permitting procedures. On the same line, but moving to agriculture, the Commission has recently adopted a legislative initiative on new genomic techniques, which, as they will be applied to a large range of crop species, are expected to contribute to SA by decreasing the Union's dependence on critical feed materials and fostering EU-grown plant protein [67,78].

The resilience of strategic supply chains will undoubtedly benefit from a strengthened implementation of specific environmental measures. For instance, to reduce the EU energy import dependency and address the energy crisis, REPower EU has proposed to further increase to 13% the binding target in the Energy Efficiency Directive and to 45% the target in the Renewable Energy Directive [60,79]. Similarly, improving the collection and recycling of CRM-rich waste is fundamental to ensure the EU's access to a secure supply of these materials. For this reason, the proposed CRMs Act [76] requires that, by 2030, at least 15% of the EU's annual consumption come from domestic recycling. Promoting the uptake of low-input practices in agriculture is expected to reduce EU dependency on fertilisers [67]. Eco-design, resource efficiency and CE practices generally contribute to SA by lowering the use of primary raw materials and are, therefore, mentioned by various EGD strategies [61,63,65] as relevant supporting tools.

Measures to Diversify Imports from Third Countries

The external dimension of the EGDSF has progressively been geared towards securing the supply of critical materials and strategic technologies via source diversification. In this way, dependency on dominant or unreliable suppliers is reduced, as well as the risk of total backlog. In particular, both the REPower EU package (via its External Energy Strategy) [80] and the Action Plan on CRMs [65], along with the proposed CRMs Act [76], schedule some actions to increase the EU SA by diversifying the supply of, respectively, energy and CRMs. The EGDSF [68] also addresses the problem of the limited number of suppliers for some chemicals used in essential societal applications.

Measures to Manage Critical/Emergency Situations

The EGDSF provides for the adoption of emergency plans and measures (e.g., strategic reserves and stockpiling) aimed at risk management to ensure that strategic supply chains/services can continue to operate unaffected in case of a crisis. Such initiatives are, e.g., scheduled by the Farm to Fork Strategy [67], the Chemicals Strategy for Sustainability [68], and the Sustainable and Smart Mobility Strategy (both with regard to freight and passenger transport) [62].

4.2.2. Measures to Promote Environmental Protection and Resilience to Environmental Risks beyond EU Borders

Measures Promoting Environmental Protection and Resilience in Third Countries

The EU makes use of multilateral agreements and fora to promote its EGD external action. For instance, the United Nations (UN) proposes or supports the adoption of relevant conventions (such as the agreements on plastics and on marine biological diversity of areas beyond national jurisdiction) [71,72] and standards (e.g., for chemicals) [68], as well as the launching of new partnerships (e.g., the Global CE Alliance) [72] and the establishment of observatories (e.g., the global soil biodiversity observatory and the international methane emissions observatory) [74,81]. Moreover, environmental protection is channelled via regional and bilateral cooperation (e.g., the NaturAfrica initiative to protect wildlife and key ecosystems, the EU–India Clean Energy and Climate Partnership, the Africa–EU Green Energy Initiative, etc.) [71,80]. The EU's long-term budget 2021–2027 has allocated EUR 110.60 billion (in current prices) to the heading 'Neighborhood and the world', and for some of the related funds, a climate contribution target has been set. In particular, the target is set at: 30% of the EU's Neighbourhood, Development and International Cooperation Instrument, which has a budget of EUR 80.59 billion; 16% of the pre-accession assistance, which has a budget of EUR 14.16 billion; and 20% of the Overseas Countries and Territories

Programme, which has a budget of EUR 500 million [82]. The EU's participation in international cooperation is often aimed at meeting multiple objectives and generating co-benefits, including creating a level playing field on the global market and, in some cases, diversifying the suppliers of materials/technologies that are pivotal to the green transition.

Specific Measures to Reduce the EU Environmental Footprint beyond EU Borders

The EU is committed to reducing its environmental footprint in third countries. This can partially be achieved as a positive side-effect of shaping EU environmental requirements, which, e.g., apply to EU products exported to third countries and to EU companies operating within global value chains. The EGDSF, however, has scheduled the introduction of specific measures to meet this objective. For instance, based on the current revision of the Waste Shipment Regulation [83], the shipment outside the EU (particularly to non-OECD countries) of waste having harmful environmental impacts will be subject to stricter requirements and the Zero Pollution Action Plan [69] has proposed to restrict the export to third countries of certain products which are no longer allowed in the EU market.

4.2.3. Measures to Ensure a Level Playing Field on the Single Market for EU Business and Products That Must Comply with Environmental Requirements

Measures Setting Environmental Requirements Applying to Imported Products and/or to the Related Production Processes

The EU prevents domestic products from suffering a competitive disadvantage because of higher environmental standards than other global players by imposing the same environmental requirements on all the products placed on the EU market (including imported ones). These measures may also have a positive impact on the environment of third countries. Indeed, EU environmental regulations, via market mechanisms, are often 'externalised', as they are sometimes emulated in other legal systems and contribute to shaping the international business environment (so-called 'Brussels effect') [53,84,85]. The EGDSF has scheduled the introduction of new or more stringent environmental requirements across all the environmental policy areas. When considering product requirements, for instance, a new regulation has been recently adopted [86], which establishes that from 2035, all new cars and vans registered in the EU must have zero emissions, and other ongoing legislative initiatives are aimed at extending the eco-design requirements beyond energy-related products [87]; setting new sustainability and safety requirements for batteries, packaging, construction products, vehicles, and toys [88–92], as well as for plant and forest reproductive materials [93,94]; and developing stricter emissions standards (Euro 7) for all petrol for cars, vans, lorries and buses [95]. Even more interesting is the planned extension of the environmental requirements related to production processes, including, e.g., the regulation on the placing of products associated with deforestation or forest degradation on the EU market [96] and the legislative proposal shaping the obligation to detect and repair methane leaks in the energy sector, which should apply from 2024 also to imported fossil energy [97]. Within this context, the CBAM [75] deserves special attention. This tool is designed to complement the Emission Trading System by putting a price on the carbon emitted during the production of carbon-intensive goods that enter the EU. It will be gradually applied to selected products at high risk of carbon leakage (cement, iron and steel, aluminium, fertilisers, electricity and hydrogen), but it has already faced severe scrutiny from EU trade partners (e.g., Brazil, South Africa, India, China, and the United States) and scholars [47,48,98–100] about its effectiveness in achieving its objectives, its compatibility with WTO rules, and its expected impacts on developing and least developed countries that have historically contributed less to global warming.

Measures Setting Environmental Requirements Applying to Non-EU Companies and Investors

The European Commission has proposed a Corporate Sustainability Due Diligence Directive (CSDDD) [101], which should revise and extend the scope of the current Non-Financial Reporting Directive (NFRD) [102]. The CSDDD introduces a framework to inte-

grate sustainability into corporate governance and management systems of large companies that operate in a single market by identifying, preventing, mitigating, and accounting for their adverse environmental impacts throughout global value chains. It applies to both upstream and downstream activities, as well as direct/indirect business relations in the global value chains. Moreover, the directive covers large companies from third countries meeting specific requirements (companies from third countries: (i) with 500+ employees and a net turnover over EUR 150 million generated in the EU or (ii) with 250+ employees and a net turnover over EUR 40 million generated in the EU, operating in defined high-impact sectors, such as textiles, agriculture, and the extraction of minerals). The CSDDD, in turn, will complement the Sustainable Finance Disclosure Regulation (SFDR) [103] and the Taxonomy Regulation [104], which have established a parallel regime for investors and also address non-EU investment managers marketing specified funds in the EU, as well as those who manage/advise EU-domiciled funds. Companies and asset managers within the scope of the NFRD and the SFDR will have to disclose to what extent they are aligned with the EU Taxonomy, which shapes a classification system for sustainable economic activities.

Measures to Improve the Implementation/Enforcement of Environmental Requirements

Some EGDSF documents set measures to improve the application and enforcement of the above-mentioned EU environmental requirements, focusing especially on imported products. For instance, according to the Action plan for the development of organic production [105], guidance will be provided to the Member States on reinforced import controls to tackle fraudulent practices, while the Strategy for Sustainable and Circular Textiles [63] aims at strengthening market surveillance via better coordination between all relevant actors (customs and market surveillance authorities, industry, etc.) and by encouraging the use of digital tools.

As stated in Section 4.1, relevant EU interventions aimed at ensuring international competition and reciprocity (with positive impacts on the green transition) are also promoted outside the EGDSF. Interesting tools include, for instance, the recently adopted regulations on foreign subsidies distorting the internal market [106] and on the access of third-country economic operators, goods and services to the EU public procurement and concession markets [107]; the legislation concerning the exercise of the EU's rights for the application and enforcement of international trade rules [108] and the proposal for an anti-coercion legal instrument to deter third countries from pressing the Union or a Member State into making a particular policy choice by implementing trade or investment measures against them [109]. All these measures, however, do not fall within the scope of the present work.

Table 1. EGDSF documents and their connection to SA.

EGDSF Document and Reference	SA Explicitly Mentioned	Examples of Measures to Enhance the Resilience of Supply Chains	Examples of Measures to Promote Environmental Protection Outside the EU	Examples of Measures to Ensure a Level Playing Field for EU Business/Products in the EU Market
Circular Economy Action Plan [72]		Supporting CE practices (e.g., resource efficiency and recycling) to make supply chains more resilient	Restricting the export of waste having harmful impacts in third countries; supporting the global agreement on plastic	New eco-design requirements for several products; new product-information requirements to empower consumers in the green transition
Hydrogen Strategy [59]	x	Diversification of imports of renewable electricity/hydrogen; increasing the production of renewable hydrogen to reduce EU dependency on the import of fossil fuels	Promoting hydrogen standardisation/regulation; cooperation on renewable hydrogen (e.g., with Southern–Eastern neighbourhood partners and the African Union)	
Renovation Wave Initiative [110]		Improved energy efficiency to make the EU less dependent on energy import		New sustainability and eco-design requirements for construction products
Biodiversity Strategy [71]			Adoption of a post-2020 global framework under the Convention on Biological Diversity; NaturAfrica initiative to protect wildlife and key ecosystems.	Adoption of stronger sustainability criteria for bioenergy
Farm to Fork Strategy [67]	x	Setting up a food crisis response mechanism; new rules to reduce the dependency on critical feed materials by fostering EU-grown plant proteins and alternative feed materials	Proposal of green alliances on sustainable food systems in bilateral, regional, and multilateral fora	Fighting food fraud via better import controls; reviewing import tolerances for substances with a high level of risk to human health
Action Plan on CRMs [65]	x	CE practices and increased domestic sourcing/processing to reduce dependency on CRM import; diversifying CRM imports	Promoting responsible mining practices for CRMs outside the EU via legislation and int. cooperation	
Methane Emissions Reduction Strategy [74]			Establishment of an int. methane emissions observatory under the UN framework	Introducing methane emission reduction requirements on fossil energy consumed in the EU

Table 1. Cont.

EGDSF Document and Reference	SA Explicitly Mentioned	Examples of Measures to Enhance the Resilience of Supply Chains	Examples of Measures to Promote Environmental Protection Outside the EU	Examples of Measures to Ensure a Level Playing Field for EU Business/Products in the EU Market
Chemicals Strategy for Sustainability [68]	x	Strengthening EU chemical production capacity; diversifying imports of essential chemicals; identifying strategic dependencies; emergency mechanisms	Setting global strategic objectives for managing chemicals beyond 2020; introducing/adapting criteria/hazard classes in the UN globally Harmonized System of Classification and Labelling of Chemicals	New requirements for chemicals to protect the environment and human health (e.g., to take account of the combination effects of chemicals in toys, cosmetics, food additives, etc.)
Strategy on offshore renewable energy [111]	x	Increased RES production to make the EU less dependent on the import of fossil fuels; CE practices to increase CRM supply chain resilience	Engagement with int. partners to develop offshore renewable energy	
Sustainable Mobility Strategy [62]	x	Making strategic value chains (batteries, raw materials, hydrogen and renewable/low-carbon fuels) more resilient; preparing crisis contingency plans to ensure business continuity	Proposing high environmental transport standards in int. fora (IMO, ICAO, etc.)	Euro 7 emission standards for cars/vans/lorries/buses; CO ₂ emission performance standards for new passenger cars/vans; rules to address the effects of foreign subsidies in the internal market
EU Adaptation Strategy [70]	x		Supporting partner countries in developing adaptation strategies (e.g., in Africa); increasing int. climate finance for adaptation via EU funds	
Action plan for the development of organic production [105]				Measures to tackle fraudulent practices (e.g., provision of guidance to Member States on reinforced import control)
A new approach for a sustainable blue economy in the EU [112]			Conclusion of a binding agreement on marine biological diversity in areas beyond national jurisdiction and of a global WTO agreement to ban harmful fisheries subsidies	
Zero Pollution Action Plan [69]		Supporting practices for pesticides and nutrients reduction by promoting innovations and exchange of knowledge	Enhancing actions under the Basel, Rotterdam, Stockholm, and Minamata Conventions on WEEE, hazardous chemicals, POPs, and mercury	
Fit for 55 [73]		Improved energy efficiency and increased RES production to make the EU less energy import-dependent.		CBAM to be gradually introduced for selected products at high risk of carbon leakage

Table 1. Cont.

EGDSF Document and Reference	SA Explicitly Mentioned	Examples of Measures to Enhance the Resilience of Supply Chains	Examples of Measures to Promote Environmental Protection Outside the EU	Examples of Measures to Ensure a Level Playing Field for EU Business/Products in the EU Market
EU Forest Strategy [113]				Regulation on the placing on the EU market of products associated with deforestation or forest degradation
EU Soil Strategy [81]			Supporting the establishment of the global soil biodiversity observatory as proposed by FAO	
Communication on Sustainable Carbon Cycles [114]			Proposing an accounting framework for the int. carbon market	
EU External Energy Strategy [80]	x	Diversifying imports of energy and CRMs; accelerating the green energy transition; prioritising energy efficiency	Pushing forward the Global Methane Pledge (to reduce the collective methane emissions of participating countries by at least 30% from 2020 levels by 2030)	Reshaping the EU's regulatory framework for hydrogen to ensure a level playing field for imported and domestically produced hydrogen
Strategy for sustainable and circular textiles [63]	x	CE practices and bio-innovation to make the EU textile sector less dependent on imported fossil fuels and virgin raw materials.	Enforcing the restrictions on exports of textile waste to non-OECD countries; developing criteria for distinguishing waste from second-hand textile products	Proposing measures addressing textiles under the Ecodesign for Sustainable Products Regulation and the revision of the REACH and Ecolabel Regulations; strengthening market surveillance
EU Solar Energy Strategy [61]	x	Reducing the import of fossil fuels via increased RES production and that of CRMs via CE practices; diversifying CRM imports.	Increasing the production of solar energy and renewables in third countries based, e.g., on EU-India Clean Energy and Climate Partnership and the Global Gateway EU-Africa investment package.	Proposing the application of the Ecodesign Directive and Energy Labelling Regulation to photovoltaic systems
REPower EU Plan [60]	x	Reducing the import of fossil fuels via increased RES production and improved energy efficiency; diversifying energy imports		
EU 'Save Energy' Communication [115]	x	Improving energy efficiency to make the EU less dependent on energy import		

Table 1. Cont.

EGDSF Document and Reference	SA Explicitly Mentioned	Examples of Measures to Enhance the Resilience of Supply Chains	Examples of Measures to Promote Environmental Protection Outside the EU	Examples of Measures to Ensure a Level Playing Field for EU Business/Products in the EU Market
Towards a strong and sustainable EU algae sector [116]	x	Upscaling regenerative algae cultivation and production in the EU to contribute to food security and reduce the dependency on feed materials		
Energy transition of the EU fisheries and aquaculture sector [64]	x	Improved energy efficiency/increased RES production to make the EU less dependent on energy import and the EU fisheries and aquaculture sectors more resilient	Promoting work on the energy transition for the fisheries and aquaculture sector in int. organisations (e.g., OECD, IMO, FAO)	
EU Action Plan on sustainable and resilient fisheries [117]			The EU should hold its vessels to at least the same standards when they fish on the high seas or in the exclusive economic zone of non-EU countries	
Resilient and sustainable use of natural resources [118]		Development of new genomic techniques to, inter alia, decrease EU's dependence on critical feed materials		Proposing new sustainability requirements for plant and forest reproductive materials

Note: every example of a planned measure is mentioned in the Table under the SA objective it mainly serves, even if the same measure may be set to achieve multiple SA objectives. 'Int.' means international, 'POPs' means persistent organic pollutants, 'REACH' is the regulation on the registration, evaluation, authorisation, and restriction of chemicals, 'RES' means renewable energy sources, and 'WEEE' means waste electrical and electronic equipment. Source: own elaboration.

Table 2. SA objectives and classification of measures planned by the EGDSF to achieve them.

<i>1 Enhancing the resilience of supply chains that are key in the green transition, especially by reducing dependence on imports from third countries and the exposure to the related geopolitical risks</i>
<ul style="list-style-type: none"> Measures to reduce the dependence on imports from third countries. <ul style="list-style-type: none"> Measures to increase the domestic sourcing, processing, and production of key resources/products; Specific environmental measures. Measures to diversify imports from third countries. Measures to manage critical/emergency situations.
<i>2 Promoting environmental protection and resilience beyond EU borders</i>
<ul style="list-style-type: none"> Measures promoting sustainability and environmental protection in third countries. Specific measures to reduce the EU environmental footprint beyond EU borders.
<i>3 Ensuring a level playing field in the EU market for EU businesses and products that must comply with environmental requirements</i>
<ul style="list-style-type: none"> Measures setting environmental requirements applying to imported products and/or to the related production processes. Measures setting environmental requirements applying to non-EU companies and investors operating in the EU. Measures to improve the implementation/enforcement of the above environmental requirements.

Please note that SA objectives are reported in the Table in italics in the grey rows, followed by the related types of implementation measures in the white rows. Source: own elaboration.

5. Discussion

Although the SA concept has been discussed in the EU since 2013, it has been applied to environmental policy over the past few years. With the EGD, the shift to climate neutrality has, hence, become a priority on the EU agenda and has been recognised as a strategic driver of economic growth and competitiveness. The implementation of SA within the EGDSF has received a huge boost for the recently changed geopolitical context, which has, on the one side, confirmed the need to accelerate the green transition while highlighting, on the other, the related supply chain risks for critical and strategic materials, products, and technologies. The late integration of SA into an already complex strategy, affecting all environmental policy areas and all economic sectors, is challenging in different respects. This situation is compounded by the multiple visions that EU policymakers and Member States have about what SA is and how to achieve it [8,119]. National divergences also reflect the uneven distribution of the costs associated with SA implementation across the EU-27. Recent SA policies have been estimated to create income losses in the EU of between 0.08% and 0.15% of EU-27 Gross Domestic Product, with smaller countries faring worse compared to larger ones because of their greater openness to and reliance on trade with non-EU countries [25]. As the SA agenda takes shape and is put into practice, the lack of a common understanding of the related objectives means, and resources could result in its failure [20].

Overall, the three core SA goals embedded into the EGDSF have been set in support of EGD goals. The green transition indeed cannot take place if the EU is not able to improve the resilience of the related key supply chains, preserve the competitiveness of the EU business and products that must comply with environmental requirements, and promote environmental protection on a global scale.

Frictions, however, may arise depending on the implementing measures planned to meet SA goals. Some implementing measures are certainly beneficial from both SA and EGD perspectives. For instance, energy efficiency and CE contribute to reducing dependencies, and, in general, more sustainable supply chains have proven to be more resilient [10]. In other cases, instead, trade-offs tend to emerge. Identifying and managing

these trade-offs is crucial for the success of the EGD. Setting wrong SA policies today may have long-term negative implications for the green transition.

In the following section, some preliminary reflections are provided on selected trade-offs affecting the current integration of SA within the EGDSF policy design and suggestions are formulated to address them. The increase in domestic sourcing and production of key resources and technologies to make the EU supply chains more resilient is the cause of growing criticism. In the first place, geopolitical resilience comes with a price tag [120]: improving self-sufficiency is a cumbersome process that requires ‘political will, long-standing executive action and more than a mere contribution from the EU budget’ [3] (p. 8). This does not fit well with the EU commitment to be climate-neutral by 2050 and the urgency to efficiently transform Europe’s energy system [121]. Furthermore, the costs of resilience are not acknowledged by the proposed CRMs Act and the NZIA [76,77], and there is no new EU-level funding strategy accompanying the EGD Industrial Plan [122], which basically repurposes current EU programs to fund the green transition [120,123]. Second, the way this objective is being operationalised raises environmental and social concerns. In order to meet the targets they established, the CRMs Act and the NZIA [76,77] introduce faster permitting procedures, even if permitting alone is unlikely to substantially speed up strategic project development. Indeed, the main obstacles to cleantech investment in the EU are skills and access to funding [121], and the prolonged lead times for CRM extraction projects are primarily attributed to the exploration and project preparation phase, which falls under the responsibility of mining companies [120]. Moreover, fast-track permit processes, along with other features of the two proposed regulations (such as the lack of limits to the EU consumption of CRMs and the definition of net-zero technologies only based on their GHG emissions, without any consideration for their further environmental impacts), risk weakening social and environmental safeguards [124–126]. The idea that improved self-sufficiency could come at the expense of environmental/social protection blows beyond EU industrial policy, affecting, e.g., the recent Commission proposal on new genomic techniques (NGTs) [78]. This legislative initiative, which also aims at guaranteeing EU food security, loosens existing rules for genetically modified plants produced by certain NGTs [127,128]. In light of the above and considering that international supply chains are often more efficient and diversified and, hence, more capable of rapid adaptation to new shocks than local ones, the EU should carefully evaluate on a case-by-case basis whether and for which products self-reliance is a valuable approach [38,129]. Before opting for reshoring/developing new industrial capacities, available alternatives should be explored, most notably diversification and coordination of supply chain risks with trade partners [20].

It also has to be added that labour markets represent a dimension of SA that has been underrated by the EGDSF. For instance, actions scheduled by the CRMs Act [76] do not seem to adequately address skills shortages in the mining sector, which is unfashionable to young generations and traditionally perceived as damaging to the environment and hard physical work. More in general, if the EU does not take appropriate and timely measures, given its population projections, it will need to rely on external labour to sustain its economic prosperity (as well as the green transition) and, as a consequence, its SA may be compromised in the future [37].

Another sensitive issue is the ongoing extension of the EU environmental requirements applying to imported products, the related production processes, and certain foreign companies accessing the EU market. These measures may generate environmental benefits beyond EU borders, as highlighted by the ‘Brussels effect’ [53,84,85]. However, the direct cost that they impose on the EU’s trading partners may discourage the latter from exporting to the EU, which, in turn, plays against the EU’s efforts to diversify its sources of imports [130]. Large compliance costs for third countries businesses could also make Europe comparatively less attractive for foreign investments. Some of the proposed initiatives (like the CBAM) [75] are often perceived as a distortion to international trade or as unequal since they mostly impact the least developed countries that are especially vulnerable to climate change [48,131]. Although they may have environmental (and not

protectionist) aims, the new requirements could lead to undesirable countermeasures and directly affect the EU's openness to trade and investment [20]. In using these tools, the EU should, therefore, remember that its strength remains its market openness and that tackling climate change and other environmental challenges can only be carried out via global engagement and cooperation [10,99]. Finally, greater coherence and balance should be achieved between environmental requirements/rules applying to EU products exported to third countries and third countries' products imported into the EU. For instance, the EU is currently exporting to third countries chemicals and pesticides that are banned within its borders (but then, the EU imports from third countries food and textiles with residues of the banned substances) [132].

The above brings us to the importance of the EGD external dimension. Third countries suffering from negative economic repercussions because of the EU green transition may see the EGD as a threat. This is why the EGD needs a stronger external dimension that is not limited to the projection of the EU domestic environmental strategies into multilateral/bilateral cooperation but that also addresses all the external and geopolitical consequences of these strategies. This includes, e.g., supporting oil-gas exporting third countries (such as North African countries) in shifting to renewable energy and green hydrogen (which could in the future be exported to Europe) and providing targeted financial and technical assistance to developing/least developed countries that incur high costs to adjust to new EU environmental requirements [46,53,54]. The EGDSF already sets some measures to manage some EGD geopolitical issues, but they are generally designed and implemented in a fragmentary way. A more integrated approach could make the EU's external action more effective, taking full advantage of the existing synergies across different policy objectives, areas, and measures. Moreover, in the context of the EGD external dimension, it will be crucial to shape a comprehensive strategy to support import diversification. On this issue, indeed, most of the relevant legislative initiatives (such as the proposed CRMs Act) [76], as domestic regulations, remain largely declaratory and vague [120,133].

6. Conclusions

The present paper analyses the role that SA plays within the EU green transition. In particular, it focuses on how this concept has been integrated into the policy design of the EGDSF to evaluate whether the specific SA objectives and the related implementing measures support the EGD goals.

It concludes that SA objectives embedded into the EGDSF have been shaped to achieve the EGD goals but that some trade-offs may arise depending on the implementation measures selected to meet the former. With this regard, it emerges that current measures that promote self-sufficiency and the extension of environmental requirements to foreign businesses/products accessing the EU market raise some environmental, economic, and social concerns. Therefore, the EU should carefully consider on a case-by-case basis whether and for which products self-reliance is a valuable approach, exploring available alternatives, such as the diversification and coordination of supply chain risks with trade partners. Moreover, the costs for third countries' products/businesses of complying with EU environmental requirements, as well as the related implications on trade openness and international cooperation, should not be understated. Multilateralism is a defining feature of the EU's internal constitution and external identity. The EU needs the support of reliable partners to improve the resilience of its strategic supply chains and to address global environmental challenges. A stronger and more integrated EGD external dimension may be extremely useful to manage all the geopolitical consequences of the EU green transition.

The above considerations are preliminary in nature, as some policy measures scheduled by the EGDSF could remain unimplemented, and several legislative initiatives have not been adopted yet so their building blocks could substantially change in the decision-making stage. It also has to be added that the debate on SA and how it is conceived/applied will undoubtedly be led, in the next future, by the upcoming European Commission. Further research is needed, therefore, to monitor this process and, especially, to assess whether

the EU has the capacity to apply the SA implementing measures designed by the EGDSF, along with their effectiveness and implications.

Overall, this article contributes to expanding existing knowledge about how the SA concept has been so far operationalised in a new area of application, namely EU environmental policy. It also provides EU policymakers with some reflections on the negative implications that selected SA implementing measures, set by the EGDSF, may have for the green transition.

Funding: The part of the work is related the activities of the European Topic Centre on Circular Economy and Resource Use (ETC/CE), funded by the European Environment Agency, under Consortium Agreement FPA OCP/EEA/CAS/21/006-ETC-CE.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data is contained within the article.

Conflicts of Interest: The author declares no conflicts of interest.

Abbreviations

CBAM	Carbon Border Adjustment Mechanism
CE	Circular Economy
CSDDD	Corporate Sustainability Due Diligence Directive
CRMs	Critical Raw Materials
EGD	European Green Deal
EGDSF	European Green Deal Strategic Framework
EU	European Union
FAO	Food and Agriculture Organisation
GHG	Greenhouse Gas
ICAO	International Civil Aviation Organisation
IMO	International Maritime Organisation
NGTs	New Genomic Techniques
NFRD	Non-Financial Reporting Directive
NZIA	Net-Zero Industry Act
OECD	Organisation for Economic Cooperation and Development
POPs	Persistent Organic Pollutants
REACH	Regulation on the registration, evaluation, authorisation, and restriction of chemicals
RES	Renewable Energy Sources
SA	Strategic Autonomy
SFDR	Sustainable Finance Disclosure Regulation
UN	United Nations
WEEE	Waste Electrical and Electronic Equipment
WTO	World Trade Organisation

References

1. EC. *The European Green Deal*; COM(2019)640 final; EC: Brussels, Belgium, 2019.
2. EC. *Europe's Moment: Repair and Prepare for the Next Generation*; COM(2020)456 final; EC: Brussels, Belgium, 2020.
3. EP. *EU Strategic Autonomy 2013–2023: From Concept to Capacity*; Briefing-EU Strategic Autonomy Monitor, European Parliamentary Research Service: Brussels, Belgium, 2022.
4. Chinese Government. Available online: <https://english.www.gov.cn/2016special/madeinchina2025/> (accessed on 9 June 2023).
5. Indian Government. Available online: <https://www.investindia.gov.in/atmanirbhar-bharat-abhiyaan> (accessed on 7 June 2023).
6. Kleimann, D.; Poitiers, N.; Sapir, A.; Tagliapietra, S.; Véron, N.; Veugelers, R.; Zettermeyer, J. *How Europe Should Answer the US Inflation Reduction Act*; Policy Contribution Issue n o04/23; Bruegel: Brussels, Belgium, 2023.
7. European Council. *Presidency Conclusions*; EUCO 217/13; European Council: Brussels, Belgium, 2013.
8. Miró, J. Responding to the global disorder: The EU's quest for open strategic autonomy. *Glob. Soc.* **2023**, *37*, 315–335. [CrossRef]
9. Ryon, E. European strategic autonomy: Energy at the heart of European security? *Eur. View* **2020**, *19*, 238–244. [CrossRef]
10. EC. *Trade Policy Review—An Open, Sustainable and Assertive Trade Policy*; COM(2021)66 final; EC: Brussels, Belgium, 2021.

11. European Union Institute for Security Studies. *European Sovereignty—Strategy and Interdependence*; Fiott, D., Ed.; Chaillot Paper 169; European Union Institute for Security Studies: Paris, France, 2021. Available online: https://www.iss.europa.eu/sites/default/files/EUISSFiles/CP_169.pdf (accessed on 19 September 2023).
12. Mauro, F. *Europe's Strategic Autonomy: That Obscure Object of Desire*; Analysis #13; IRIS: Paris, France, 2021.
13. Sikora, A. *Constitutionalisation of Environmental Protection in EU Law*; Europa Law Pub: Zutphen, The Netherlands, 2022.
14. Van den Abeele, E. *Towards a New Paradigm in Open Strategic Autonomy? Working Paper 2021.03*; ETUI: Brussels, Belgium, 2021.
15. EP. *EU Green Strategi Autonomy—The Challenge of Combining Two Objectives*; European Parliamentary Research Services: Luxembourg, 2023.
16. Beaucillon, C. Strategic Autonomy: A new identity for the EU as a global actor. *Eur. Pap.-A J. Law Integr.* **2023**, *8*, 411–416.
17. Helwig, N. *EU Strategic Autonomy—A Reality Check for Europe's Global Agenda*; Working Paper 2020/119; Finnish Institute of International Affairs: Helsinki, Finland, 2020.
18. Tocci, N. *European Strategic Autonomy: What It Is, Why We Need It, How to Achieve It*; Istituto Affari Internazionali: Roma, Italy, 2021.
19. Leonard, M.; Shapiro, J. *Strategic Sovereignty: How Europe Can Regain the Capacity to Act*; European Council on Foreign Relations: Berlin, Germany, 2019. Available online: https://ecfr.eu/publication/strategic_sovereignty_how_europe_can_regain_the_capacity_to_act/ (accessed on 19 February 2024).
20. Molthof, L.; Köbben, L. *How to 'Open' Strategic Autonomy*; Policy Brief; Clingendael–Netherlands Institute of International Relations: Den Haag, The Netherlands, 2022.
21. European Political Strategy Centre. *Rethinking Strategic Autonomy in the Digital Age*; EPSC Strategic Notes; European Political Strategy Centre: Brussel, Belgium, 2019.
22. Grevi, G. *Strategic Autonomy for European Choices: The Key to Europe's Shaping Power*; Discussion Paper; European Policy Centre: Brussels, Belgium, 2019. Available online: https://www.epc.eu/content/PDF/2019/190719_Strategicautonomy_GG.pdf (accessed on 19 September 2023).
23. Morillas, P. An Architecture fit for Strategic Autonomy—Institutional and Operational Steps towards a More Autonomous EU External Action; Policy Brief, Foundation for European progressive Studies. 2021. Available online: <https://fepe-europe.eu/publication/828-an-architecture-fit-for-strategic-autonomy/> (accessed on 14 January 2024).
24. Schmitz, L.; Seidl, T. As open as possible, as autonomous as necessary: Understanding the rise of Open Strategic Autonomy in EU. *Policy J. Common Mark. Stud.* **2023**, *61*, 834–852. [CrossRef]
25. Bauer, M. *The Impacts of EU Strategy Autonomy Policies—A Primer for Member States*; ECIPE Policy Brief; European Centre for International Political Economy: Brussels, Belgium, 2022.
26. Youngs, R. *The EU's Strategic Autonomy Trap*; Carnegie Europe: Bruxelles, Belgium, 2021. Available online: <https://carnegieeurope.eu/2021/03/08/eu-s-strategic-autonomy-trap-pub-83955> (accessed on 20 February 2024).
27. Gehrke, T. EU Open Strategic Autonomy and the trappings of geoeconomics. *Eur. Foreign Aff. Rev.* **2022**, *27*, 61–78. Available online: https://www.egmontinstitute.be/app/uploads/2022/06/EU-Open-Strategic-Autonomy_Gehrke_2022.pdf?type=pdf (accessed on 14 January 2024).
28. Camporini, V.; Hartley, K.; Maulny, J.P.; Zandee, D. *European Preference, Strategic Autonomy and European Defence Fund*; IRIS-Armament Industry European Research Group: Paris, France, 2017.
29. Zandee, D.; Deen, B.; Kruijver, K.; Stoetman, A. *European Strategic Autonomy in Security and Defence: Now the Going Gets Tough, It's Time to Get Going*; Clingendael–Netherlands Institute of International Relations: Den Haag, The Netherlands, 2020. Available online: https://www.clingendael.org/sites/default/files/2020-12/Report_European_Strategic_Autonomy_December_2020.pdf (accessed on 20 February 2024).
30. Besch, S.; Scazzieri, L. *European Strategic Autonomy and a New Transatlantic Bargain*; Centre for European Reform: London, UK; Brussels, Belgium; Berlin, Germany, 2020.
31. Ribeiro, G.C. *Geoeconomic Awakening: The European Union's Trade and Investment Policy Shift toward Open Strategic Autonomy*; EU Diplomacy Paper; College of Europe: Brugge, Belgium, 2023.
32. Weiß, W. The EU's strategic autonomy in times of politicisation of international trade: The future of commission accountability. *Glob. Policy* **2023**, *14*, 54–64. [CrossRef]
33. Escriche, I.A. *How Can the European Union Achieve Digital Strategic Autonomy? Views from Future Leaders*; CIDOB Briefings; CIDOB: Barcelona, Spain, 2022.
34. Okano-Heijmans, M. *Open Strategic Autonomy the Digital Dimension*; Clingendael–Netherlands Institute of International Relations: Den Haag, The Netherlands, 2023.
35. Sabatino, E.; Marrone, A. *Emerging Disruptive Technologies: The Achilles' Heel for EU Strategic Autonomy?* Commentaries, Istituto Affari Internazionali: Rome, Italy, 2021.
36. Lokenberg, S.; Cretti, G.; van Schaik, L. A tale of two dependencies: European Strategic Autonomy in the field of energy. *Eur. Foreign Aff. Rev.* **2023**, *28*, 417–438.
37. Akgüç, M. *Europe's Open Strategic Autonomy—Striking a Balance between Geopolitical, Socioeconomic and Environmental Dimensions*; ETUI Policy Brief; European Economic, Employment and Social Policy: Brussels, Belgium, 2021.
38. Vega, K.V. *Strategic Autonomy and the European Green Deal*; Fiker Institute: Dubai, United Arab Emirates, 2022.

39. EC. *Strategic Foresight Report 2023—Sustainability and People’s Wellbeing at the Heart of Europe’s Open Strategic Autonomy*; European Union: Brussels, Belgium, 2023. Available online: https://commission.europa.eu/document/download/ca1c61b7-e413-4877-970b-8ef619fc6b6c_en?filename=SFR-23-beautified-version_en_0.pdf (accessed on 20 February 2024).
40. JRC. *Shaping & Securing—The EU Open Strategic Autonomy by 2040 and Beyond*; Publications Office of the European Union: Brussels, Belgium, 2021.
41. Szpilko, D.; Ejdy, J. European Green Deal—Research directions. A systematic literature review. *Econ. Environ.* **2022**, *81*, 8–38.
42. Raimondi, P.P. *Walking out of the Woods: EU Industrial Policy between the Energy Crisis and Decarbonisation*; Commentaries, Istituto Affari Internazionali: Roma, Italy, 2022. Available online: <https://www.iai.it/sites/default/files/iaicom2264.pdf> (accessed on 20 February 2024).
43. Hernández, A.R. Geopolitics of the Energy Transition: Energy Security, New Dependencies and Critical Raw Materials. Old Wine in New Bottles for the EU? Bruges Political Research Papers, 87/2022. Available online: <https://www.coleurope.eu/sites/default/files/research-paper/wp87%20Rangel.pdf> (accessed on 20 February 2024).
44. Joița, D.; Panait, M.; Dobrotă, C.-E.; Diniță, A.; Neacșa, A.; Naghi, L.E. The European dilemma—Energy security or green transition. *Energies* **2023**, *16*, 3849. [CrossRef]
45. Cretti, G.; Ramnath, A.; van Schaik, L. *Transitioning towards Energy Security beyond EU Borders: Why, Where and How? Policy Brief*; Clingendael–Netherlands Institute of International Relations: Den Haag, The Netherlands, 2022.
46. Leonard, M.; Pisani-Ferry, J.; Shapiro, J.; Tagliapietra, S.; Wolf, G. *The Geopolitics of the European Green Deal*; Policy Contribution Issue n o04/2; Bruegel: Brussels, Belgium, 2021.
47. Zachmann, G.; McWilliams, B. *A European Carbon Border Tax: Much Pain, Little Gain*; Issue 5/2020; Bruegel: Brussels, Belgium, 2020. Available online: https://www.bruegel.org/sites/default/files/wp_attachments/PC-05-2020-050320v2.pdf (accessed on 20 September 2023).
48. Ülgen, S. *Economy Perspective on the EU’s Carbon Border Tax*; Canergie Europe: Brussels, Belgium, 2023. Available online: <https://carnegieeurope.eu/2023/05/09/political-economy-perspective-on-eu-s-carbon-border-tax-pub-89706> (accessed on 20 September 2023).
49. Jansen, J. *When Europe Talks Climate, 6 December 2023 It Needs to Think Jobs*; Policy Brief; Hertie School, Jacques Delors Centre: Berlin, Germany, 2023. Available online: https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20231206_Jansen_ClimateJobs_FINAL_2.0.pdf (accessed on 20 February 2024).
50. Teevan, C.; Medinilla, A.; Sergejeff, K. *The Green Deal in EU Foreign and Development Policy*; Briefing Note 131; European Centre for Development Policy Management: Maastricht, The Netherlands, 2021.
51. Grimm, S.; Reiners, W.; Helwig, N.; Siddi, M.; Mourier, L. *The Global Dimension of the European Green Deal: The EU as a Green Leader? The Multinational Development Policy Dialogue-KAS in Brussels*; Brussels, Belgium, 2021.
52. Eyl-Mazzega, M.-A. *The Green Deal’s External Dimension—Re-Engaging with Neighbors to Avoid Carbon Walls*; Editoriaux de l’IFRI: Paris, France, 2020. Available online: <https://www.ifri.org/en/publications/editoriaux-de-lifri/edito-energie/green-deals-external-dimension-re-engaging-neighbors> (accessed on 14 January 2024).
53. Raimondi, P.; Bianchi, M.; Sartori, N.; Lelli, M. *The External Dimension of the Green Deal, between Cooperation and Competition*; Istituto Affari Internazionali: Roma, Italy, 2022.
54. German Development Institute. *The External Dimensions of the European Green Deal: The Case for an Integrated Approach*; Briefing Paper 13/2021; German Development Institute: Bonn, Germany, 2021.
55. Council of European Union. *Strategic Autonomy, Strategic Choices. Issues Paper*. 2021. Available online: <https://www.consilium.europa.eu/media/49404/strategic-autonomy-issues-paper-5-february-2021-web.pdf> (accessed on 19 September 2023).
56. EP. *What If Open Strategic Autonomy Could Break the Cycle of Recurring Crises?* European Parliamentary Research Service: Brussels, Belgium, 2023.
57. EC. *Long-Term Competitiveness of the EU: Looking beyond 2030*; COM(2023)168 final; EC: Brussels, Belgium, 2023.
58. EP. *On the Path to ‘Strategic Autonomy’—The EU in an Evolving Geopolitical Environment*; European Parliamentary Research Service: Brussels, Belgium, 2020.
59. EC. *A Hydrogen Strategy for a Climate-Neutral EUROPE*; COM(2020)301 final; EC: Brussels, Belgium, 2020.
60. EC. *REPowerEU: Joint European Action for More Affordable, Secure and Sustainable Energy*; COM(2022)108 final; EC: Brussels, Belgium, 2022.
61. EC. *EU Solar Energy Strategy*; COM(2022)221 final; EC: Brussels, Belgium, 2022.
62. EC. *Sustainable and Smart Mobility Strategy: Putting European Transport on Track for the Future*; COM(2020)789 final; EC: Brussels, Belgium, 2020.
63. EC. *EU Strategy for Sustainable and Circular Textiles*; COM(2022)141 final; EC: Brussels, Belgium, 2022.
64. EC. *The Energy Transition of the EU Fisheries and Aquaculture Sector*; COM(2023)100 final; EC: Brussels, Belgium, 2023.
65. EC. *Critical Raw Materials Resilience: Charting a Path towards Greater Security and Sustainability*; COM(2020)474 final; EC: Brussels, Belgium, 2020.
66. EP. *Four Challenges of the Energy Crisis for the EU’s Strategic Autonomy*; European Parliamentary Research Service: Brussels, Belgium, 2023.
67. EC. *A Farm to Fork Strategy for a Fair, Healthy and Environmentally-Friendly Food System*; COM(2020)381 final; EC: Brussels, Belgium, 2020.

68. EC. *Chemicals Strategy for Sustainability Towards a Toxic-Free Environment*; COM(2020)667 final; EC: Brussels, Belgium, 2020.
69. EC. *Pathway to a Healthy Planet for All. EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'*; COM (2021)400 final; EC: Brussels, Belgium, 2021.
70. EC. *Forging a Climate-Resilient Europe—The New EU Strategy on Adaptation to Climate Change*; COM(2021)82 final; EC: Brussels, Belgium, 2021.
71. EC. *EU Biodiversity Strategy for 2030: Bringing Nature Back into Our Lives*; COM(2020)380 final; EC: Brussels, Belgium, 2020.
72. EC. *A New Circular Economy Action Plan For a Cleaner and More Competitive Europe*; COM(2020)98 final; EC: Brussels, Belgium, 2020.
73. EC. 'Fit for 55': *Delivering the EU's 2030 Climate Target on the Way to Climate Neutrality*; COM(2021)550 final; EC: Brussels, Belgium, 2021.
74. EC. *EU Strategy to Reduce Methane Emissions*; COM(2020)663 final; EC: Brussels, Belgium, 2020.
75. EU. Regulation (EU) 2023/956 of the European Parliament and of the Council of 10 May 2023 establishing a carbon border adjustment mechanism. *Off. J. Eur. Union* **2023**, L 130, 52–104.
76. EC. *Proposal for a Regulation of the European Parliament and the Council Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials and Amending Regulations (EU) 168/2013, (EU) 2018/858, 2018/1724 and (EU) 2019/1020*; COM(2023)160 final; EC: Brussels, Belgium, 2023.
77. EC. *Proposal for a Regulation of the European Parliament and the Council on Establishing a Framework of Measures for Strengthening Europe's Net-Zero Technology Products Manufacturing Ecosystem (Net Zero Industry Act)*; COM(2023)161 final; EC: Brussels, Belgium, 2023.
78. EC. *Proposal for a Regulation of the European Parliament and the Council on Plants Obtained by Certain New Genomic Techniques and Their Food and Feed, and Amending Regulation (EU) 2017/625*; COM(2023)411 final; EC: Brussels, Belgium, 2023.
79. EC. *Proposal for a Directive of the European Parliament and of the Council Amending Directive (EU) 2018/2001 on the Promotion of the Use of Energy from Renewable Sources, Directive 2010/31/EU on the Energy Performance of Buildings and Directive 2012/27/EU on Energy Efficiency*; COM(2022)222 final; EC: Brussels, Belgium, 2022.
80. EC. *EU External Energy Engagement in a Changing World*; JOIN(2022)23 final; EC: Brussels, Belgium, 2022.
81. EC. *EU Soil Strategy for 2030 Reaping the Benefits of Healthy Soils for People, Food, Nature and Climate*; COM(2021)699 final; EC: Brussels, Belgium, 2021.
82. EC. Available online: https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/pre-accession-assistance_en (accessed on 1 September 2023).
83. EC. *Proposal for a Regulation of the European Parliament and of the Council on Shipments of Waste and Amending Regulations (EU) No 1257/2013 and (EU) No 2020/1056*; COM(2021)709 final; EC: Brussels, Belgium, 2021.
84. Bradford, A. The Brussels Effect. Northwestern University School of Law. 2012, Volume 107, p. 1. Columbia Law and Economics Working Paper No. 533. Available online: https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1275&context=faculty_scholarship (accessed on 1 September 2023).
85. Kettunen, M.; Bodin, E.; Davey, E.; Gionfra, S.; Charveriat, C. *An EU Green Deal for Trade Policy and the Environment: Aligning Trade with Climate and Sustainable Development Objectives*; IEEP: Brussels, Belgium; London, UK, 2020.
86. EU. Regulation (EU) 2023/851 of the European Parliament and of the Council of 19 April 2023 amending Regulation (EU) 2019/631 as Regards Strengthening the CO₂ Emission Performance Standards for New Passenger Cars and New Light Commercial Vehicles in Line with the Union's Increased Climate Ambition. *OJ L 110*, 25.4.2023. pp. 5–20. Available online: <https://eur-lex.europa.eu/eli/reg/2023/851> (accessed on 14 January 2024).
87. EC. *Proposal for a Regulation of the European Parliament and of the Council Establishing a Framework for Setting Ecodesign Requirements for Sustainable Products and Repealing Directive 2009/125/EC*; COM(2022)142 final; EC: Brussels, Belgium, 2022.
88. EC. *Proposal for a Regulation of the European Parliament and of the Council Concerning Batteries and Waste Batteries, Repealing Directive 2006/66/EC and Amending Regulation (EU) No 2019/1020*; COM(2020)798 final; EC: Brussels, Belgium, 2020.
89. EC. *Proposal for a Regulation of the European Parliament and of the Council on Packaging and Packaging Waste, Amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and Repealing Directive 94/62/EC*; COM(2022)677 final; EC: Brussels, Belgium, 2022.
90. EC. *Proposal for a Regulation of the European Parliament and of the Council Laying down Harmonised Conditions for the Marketing of Construction Products, Amending Regulation (EU) 2019/1020 and Repealing Regulation (EU) 305/2011*; COM(2022)144 final; EC: Brussels, Belgium, 2022.
91. EC. *Proposal for a Regulation of the European Parliament and the Council on Circularity Requirements for Vehicle Design and on Management of End-of-Life Vehicles, Amending Regulations (EU) 2018/858 and 2019/1020 and Repealing Directives 2000/53/EC and 2005/64/EC*; COM(2023)451 final; EC: Brussels, Belgium, 2023.
92. EC. *Proposal for a Regulation of the European Parliament and the Council on the Safety of Toys and Repealing Directive 2009/48/EC*; COM(2023)462 final; EC: Brussels, Belgium, 2023.
93. EC. *Proposal for a Regulation of the European Parliament and the Council on the Production and Marketing of Plant Reproductive Material in the Union, Amending Regulations (EU) 2016/2031, 2017/625 and 2018/848 of the European Parliament and of the Council, and Repealing Council Directives 66/401/EEC, 66/402/EEC, 68/193/EEC, 2002/53/EC, 2002/54/EC, 2002/55/EC, 2002/56/EC, 2002/57/EC, 2008/72/EC and 2008/90/EC*; COM(2023)414 final; EC: Brussels, Belgium, 2023.

94. EC. *Proposal for a Regulation of the European Parliament and the Council on the Production and Marketing of Forest Reproductive Material, Amending Regulations (EU) 2016/2031 and 2017/625 of the European Parliament and of the Council and Repealing Council Directive 1999/105/EC*; COM(2023)415 final; EC: Brussels, Belgium, 2023.
95. EC. *Proposal for a Regulation of the European Parliament and of the Council on Type-Approval of Motor Vehicles and Engines and of Systems, Components and Separate Technical Units Intended for Such Vehicles, with Respect to Their Emissions and Battery Durability (Euro 7) and Repealing Regulations (EC) No 715/2007 and (EC) No 595/2009*; COM(2022)586 final; EC: Brussels, Belgium, 2022.
96. EU. Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the Making Available on the Union Market and the Export from the Union of Certain Commodities and Products Associated with Deforestation and Forest Degradation and Repealing Regulation (EU) No 995/2010. *OJ L 150*, 9.6.2023. pp. 206–247. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32023R1115> (accessed on 14 January 2024).
97. EC. *Proposal for a Regulation of the European Parliament and of the Council on Methane Emissions Reduction in the Energy Sector and Amending Regulation (EU) 2019/942*; COM(2021)805 final; EC: Brussels, Belgium, 2021.
98. Lim, B.; Hong, K.; Yoon, J.; Chang, J.-I.; Cheong, I. Pitfalls of the EU's Carbon Border Adjustment Mechanism. *Energies* **2021**, *14*, 7303. [CrossRef]
99. Meyers, Z. *The EU Needs a Bigger Playing Field—Not a Level Playing Field*; Centre for European Reform: London, UK; Brussels, Belgium; Berlin, Germany, 2022.
100. Sun, X.; Mi, Z.; Cheng, L.; Coffman, M.; Liu, Y. Transition towards ecological sustainability through fiscal decentralization, renewable energy and green investment in OECD countries. *Fundam. Res.* 2023, in press. [CrossRef]
101. EC. *Proposal for a Directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and Amending Directive (EU) 2019/1937*; COM(2022)71 final; EC: Brussels, Belgium, 2022.
102. EU. Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 Amending Directive 2013/34/EU as Regards Disclosure of Non-Financial and Diversity Information by Certain Large Undertakings and Groups. *OJ L 330*, 15.11.2014. pp. 1–9. Available online: <https://eur-lex.europa.eu/eli/dir/2014/95/oj> (accessed on 14 January 2024).
103. EU. Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on Sustainability-Related Disclosures in the Financial Services Sector. *OJ L 317*, 9.12.2019. pp. 1–16. Available online: <https://eur-lex.europa.eu/eli/reg/2019/2088/oj> (accessed on 14 January 2024).
104. EU. Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the Establishment of a Framework to Facilitate Sustainable Investment, and Amending Regulation (EU) 2019/2088. *OJ L 198*, 22.6.2020. pp. 13–43. Available online: <https://eur-lex.europa.eu/eli/reg/2020/852/oj> (accessed on 14 January 2024).
105. EC. *An Action Plan for the Development of Organic Production*; COM(2021)141 final; EC: Brussels, Belgium, 2021.
106. EU. Regulation (EU) 2022/2560 of the European Parliament and of the Council of 14 December 2022 on Foreign Subsidies Distorting the Internal Market. *OJ L 330*, 23.12.2022. pp. 1–45. Available online: <https://eur-lex.europa.eu/eli/reg/2022/2560/oj> (accessed on 14 January 2024).
107. EU. Regulation (EU) 2022/1031 of the European Parliament and of the Council of 23 June 2022 on the Access of Third-Country Economic Operators, Goods and Services to the Union's Public Procurement and Concession Markets and Procedures Supporting Negotiations on Access of Union Economic Operators, Goods and Services to the Public Procurement and Concession Markets of Third Countries. *OJ L 173*, 30.6.2022. pp. 1–16. Available online: <https://eur-lex.europa.eu/eli/reg/2022/1031/oj> (accessed on 14 January 2024).
108. EU. Regulation (EU) 2021/167 of the European Parliament and of the Council of 10 February 2021 amending Regulation (EU) No 654/2014 Concerning the Exercise of the Union's Rights for the Application and Enforcement of International Trade Rules. *OJ L 49*, 12.2.2021. pp. 1–5. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021R0167> (accessed on 14 January 2024).
109. EC. *Proposal for a Regulation of the European Parliament and of the Council on the Protection of the Union and Its Member States from Economic Coercion by Third Countries*; COM(2021)775 final; EC: Brussels, Belgium, 2021.
110. EC. *Renovation Wave for Europe—Greening Our Buildings, Creating Jobs, Improving Lives*; COM(2020)662 final; EC: Brussels, Belgium, 2020.
111. EC. *An EU Strategy to Harness the Potential of Offshore Renewable Energy for a Climate Neutral Future*; COM(2020)741 final; EC: Brussels, Belgium, 2020.
112. EC. *A New Approach for a Sustainable Blue Economy in the EU Transforming the EU's Blue Economy for a Sustainable Future*; COM(2021)240 final; EC: Brussels, Belgium, 2021.
113. EC. *New EU Forest Strategy for 2030*; COM(2021)572 final; EC: Brussels, Belgium, 2021.
114. EC. *Sustainable Carbon Cycles*; COM(2021)800 final; EC: Brussels, Belgium, 2021.
115. EC. *EU 'Save Energy'*; COM(2022)240 final; EC: Brussels, Belgium, 2022.
116. EC. *Towards a Strong and Sustainable EU Algae Sector*; COM(2022)592 final; EC: Brussels, Belgium, 2022.
117. EC. *EU Action Plan: Protecting and Restoring Marine Ecosystems for Sustainable and Resilient Fisheries*; COM(2023)102 final; EC: Brussels, Belgium, 2023.
118. EC. *Ensuring Resilient and Sustainable Use of EU's Natural Resources*; COM(2023)410 final; EC: Brussels, Belgium, 2023.

119. ECFR. *Independence Play: Europe's Pursuit of Strategic Autonomy*; prepared by Franke, U., Varma, T.; European Council on Foreign Relations: London, UK, 2019. Available online: <https://ecfr.eu/wp-content/uploads/Independence-play-Europes-pursuit-of-strategic-autonomy.pdf> (accessed on 1 September 2023).
120. Findeisen, F.; Wernert, Y. *Meeting the Costs of Resilience: The EU's Critical Raw Materials Strategy Must Go the Extra Kilometre*; Policy Brief; Hertie School–Jacques Delors Centre: Berlin, Germany, 2023. Available online: https://www.delorscentre.eu/fileadmin/2_Research/1_About_our_research/2_Research_centres/6_Jacques_Delors_Centre/Publications/20230630_Findeisen_Wernert_CRMA_Final.pdf (accessed on 24 July 2023).
121. Tagliapietra, S. *Economic Efficiency Versus Geopolitical Resilience: Strategic Autonomy's Difficult Balancing Act—A Timely Analysis on the Notion of Strategic Autonomy in the EU's Industrial Policy*; Bruegel: Brussels, Belgium, 2023. Available online: <https://www.bruegel.org/first-glance/economic-efficiency-versus-geopolitical-resilience-strategic-autonomys-difficult> (accessed on 20 September 2023).
122. EC. *A Green Deal Industrial Plan for the Net-Zero Age*; COM(2023)62 final; EC: Brussels, Belgium, 2023.
123. Tagliapietra, S.; Veugelers, R.; Zettelmeyer, J. *Rebooting the European Union's Net Zero Industry Act*; Bruegel Policy Brief; Bruegel: Brussels, Belgium, 2023. Available online: <https://www.bruegel.org/policy-brief/rebooting-european-unions-net-zero-industry-act> (accessed on 24 July 2023).
124. CAN, EEB and WWF. Joint NGO Statement on the NZIA. 2023. Available online: https://wwfeu.awsassets.panda.org/downloads/joint_ngo_statement_on_nzia.pdf (accessed on 24 July 2023).
125. Friends of the Earth Europe. Briefing on the EU's Critical Raw Material Regulation. 2023. Available online: <https://friendsoftheearth.eu/wp-content/uploads/2023/03/Critical-Raw-Materials-Regulation-FoEE-analysis.pdf> (accessed on 24 July 2023).
126. Righetti, E.; Rizo, V. The EU's Quest for Strategic Raw Materials: What Role for Mining and Recycling? *Intereconomics* **2023**, *58*, 69–73. [CrossRef]
127. Euractiv. Available online: <https://www.euractiv.com/section/agriculture-food/news/eu-executive-proposes-looser-rules-on-gene-edited-food/> (accessed on 20 September 2023).
128. Science. Available online: <https://www.science.org/content/article/european-commission-proposes-loosening-rules-gene-edited-plants> (accessed on 20 September 2023).
129. EESC. *Strategic Autonomy and Food Security and Sustainability*; own-initiative opinion of the European Economic and Social Committee, NAT/822, adopted at plenary on 20 October 2021; EESC: São Carlos, Brazil, 2021.
130. Guinea, O.; Sharma, V. *The L'Oréal Principle: How the EU Leverages Its Single Market for Its Trade Policy Objectives*; ECIPE blog; European Centre for Political Economy: Brussels, Belgium, 2022. Available online: <https://ecipe.org/blog/eu-single-market-trade-policy-objectives/> (accessed on 19 September 2023).
131. Magacho, G.; Espagne, E.; Godin, A. Impacts of CBAM on EU Trade Partners: Consequences for Developing Countries; AFD Research paper, 2022, 1–20. Available online: <https://www.cairn-int.info/journal-afd-research-papers-2022-238-page-1.htm> (accessed on 19 September 2023).
132. EP. Export of Pesticides Banned in the EU and Import of Pesticide Residues: Environmental and Public Health Risks. Parliamentary question-E-001396/2023. 2023. Available online: https://www.europarl.europa.eu/doceo/document/E-9-2023-001396_EN.html (accessed on 14 January 2024).
133. Le Mouel, M.; Poitiers, N. *Why Europe's Critical Raw Materials Strategy Has to Be International*; Bruegel: Brussels, Belgium, 2023. Available online: [https://www.bruegel.org/sites/default/files/2023-06/why-europe%E2%80%99s-critical-raw-materials-strategy-has-to-be-international-\(8941\)_1.pdf](https://www.bruegel.org/sites/default/files/2023-06/why-europe%E2%80%99s-critical-raw-materials-strategy-has-to-be-international-(8941)_1.pdf) (accessed on 25 July 2023).

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.