G. Ü. İslahiye İİBF Uluslararası E-Dergi
Yıl: 2025, 9(9): 113-122
Makale Türü: Araştırma Makalesi Research Type: Research Paper

RETHINKING THE GREEN TRANSITION: EUROPE AND BEYOND – ENERGY, INDUSTRY AND FOOD SECTORS

♦♦♦

YEŞİL DÖNÜŞÜMÜ YENİDEN DÜŞÜNMEK: AVRUPA VE ÖTESİ - ENERJİ, SANAYİ VE GIDA SEKTÖRLERİ

Mehmet Cevat Yıldırım[1]

Abstract

This article critically examines the European Green Deal (EGD) and its implications for the energy, industry, and food sectors, both within Europe and beyond. While the EGD sets ambitious goals for achieving climate neutrality by 2050, the analysis reveals significant implementation challenges, technological uncertainties, and contradictions between long-term targets and current practices. In the energy sector, despite progress in renewable energy deployment, the EU remains dependent on fossil fuels and unproven carbon capture technologies. In the industrial sector, the Green Deal Industrial Plan promotes clean tech investments but risks reinforcing market-oriented logics and unequal financial allocations. In the food sector, the Farm to Fork strategy offers a comprehensive sustainability agenda, yet faces resistance from agribusiness lobbies and political divisions across member states.

Crucially, the article highlights how the EGD's global dimension extends its political and economic influence beyond EU borders. The article argues that, for the EGD to lead a truly just transition, it must move beyond technocratic fixes and adopt a more transformative and globally inclusive socio-ecological vision of sustainability.

Keywords: *European Green Deal, Green Transition, Energy, Industry, Food*

JEL Codes: *O52, Q01, Q57*

Öz

Bu makale, Avrupa Yeşil Mutabakatı'nı (AYM) ve Avrupa içinde ve dışında enerji, sanayi ve gıda sektörleri üzerindeki etkilerini eleştirel bir şekilde incelemektedir. AYM, 2050 yılına kadar iklim nötrlüğüne ulaşmak için iddialı hedefler belirlerken, analiz önemli uygulama zorluklarını, teknolojik belirsizlikleri ve uzun vadeli hedefler ile mevcut uygulamalar arasında çelişkileri ortaya koymaktadır. Enerji sektöründe, yenilenebilir enerji alanındaki ilerlemeye rağmen, AB fosil yakıtlara ve işlerliği kanıtlanmamış karbon yakalama teknolojilerine bağımlı kalmaya devam etmektedir. Sanayi sektöründe, Yeşil Mutabakatı Endüstriyel Planı temiz teknoloji yatırımlarını teşvik etse de piyasa odaklı mantığı ve eşitsiz finansal tahsisleri güçlendirme riski taşımaktadır. Gıda sektöründe, Tarladan Sofraya Stratejisi kapsamlı bir sürdürülebilirlik gündemi sunmakla birlikte, tarım işletmeleri lobilerinin ve üye ülkelerdeki siyasi bölünmelerin direnişiyle karşı karşıyadır.

Makale, AYM'nin küresel boyutunun siyasi ve ekonomik etkisini AB sınırlarının ötesine nasıl taşıdığını vurgulamaktadır. Makalede, AYM'nin gerçekten adil bir geçişe öncülük edebilmesi için teknokratik düzenlemelerin ötesine geçmesi ve sürdürülebilirliğe ilişkin daha dönüştürücü ve küresel olarak kapsayıcı bir sosyo-ekolojik vizyon benimsemesi gerektiği savunuluyor.

Anahtar Kelime: *Avrupa Yeşil Mutabakatı, Yeşil Dönüşüm, Enerji, Sanayi, Gıda*

JEL Kodu: *O52, Q01, Q57*

[1] Doç. Dr., Gaziantep Üniversitesi, İslahiye İktisadi ve İdari Bilimler Fakültesi, Kamu Yönetimi Bölümü, cevatyildirim@gantep.edu.tr , ORCID: 0000-0002-3636-9438

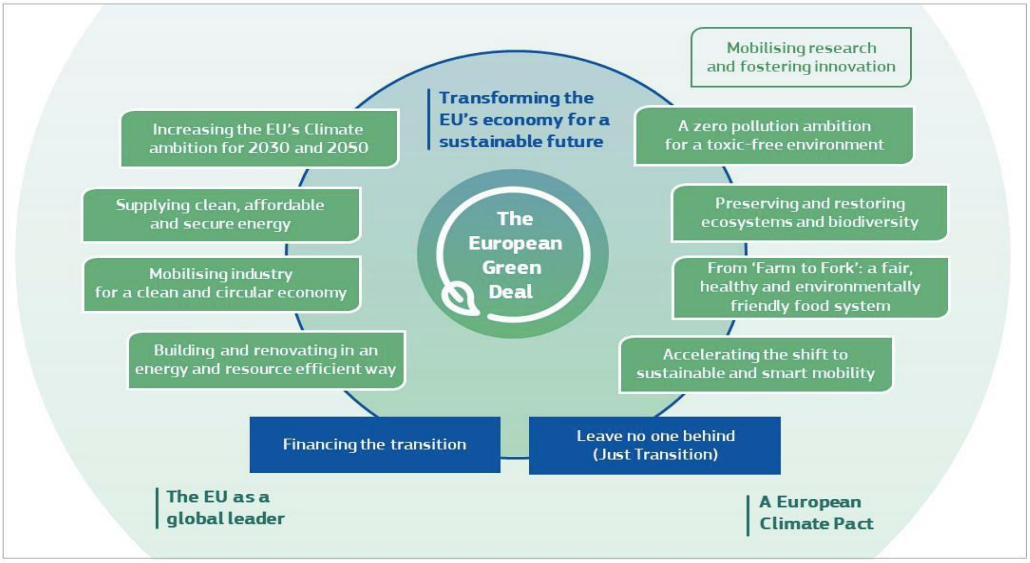
Makale Türü: Araştırma Makalesi Research Type: Research Paper

1. INTRODUCTION

The sustainable development approach, has become the mainstream economic policy, replacing incrementally unconstrained neoliberalism. Following the 2008 Great Recession and especially after the COP21 Climate Summit in 2015, the idea of a sustainable economy (Pearce et al., 1989; Hopwood et al. 2005; Hawken et al., 1999) is backed more and more by international institutions (UN, 2015; UNEP, 2015; OECD, 2017).

Following the COP 21 Paris Agreement in 2015, the EU was committed to introducing its carbon emissions reduction strategy. This led to the European Green Deal (EGD) (European Commission, 2019), a comprehensive economic reform strategy aiming to make the EU the first climate-neutral economy by 2050. An intermediary target of reducing carbon emissions by 55 % by 2030 (compared to the 1990 level) has also been adopted. Article 2 of the European Climate Law (European Union, 2021) made these targets legally binding.

Figure 1. The European Green Deal Explained (European Commission, 2019)



The European Green Deal is firstly European, but it is not limited with Europe. It has also a global dimension; EGD defines the EU as a "global leader" in green transition. It is noted that the EU will reshape its external relations its partners in accordance with the EGD, and will use it as a tool for "green diplomacy".

The EGD notes that:

"The EU will step up bilateral engagement with partner countries and, where necessary, establish innovative forms of engagement. The EU will continue to engage with the economies of the G20 that are responsible for 80% of global greenhouse gas emissions. Stepping up the level of climate action taken by international partners requires tailor-made geographic strategies that reflect different contexts and local needs – for example for current and future big emitters, for the least developed countries, and for small island developing states. The EU is also working with global partners to develop international carbon markets as a key tool to create economic incentives for climate action." (European Commission, 2019)

Europe's green transition agenda in the context of the EGD covers all sectors of European economy, from energy production to transport, from construction to food production, from industry

and manufacture to finance. To implement the EGD, EU produced a series of strategy papers and EU legislation addressing all these sectors.

In this study we will focus on some prominent implications of the EGD, we will present the EU framework developed after 2019, and we will consider these implications from a critical point of view. For this, we will first address the energy transition issues. Then we will present the industrial shifts in the context of the EGD. And last but not least, we will focus on food implications of the green transition.

2. ENERGY

EGD sets two precise targets: The main target is to "transform the EU to an economy where there are no net emissions of greenhouse gases in 2050" (European Commission, 2019). The second target is an intermediary one. This is to reduce carbon dioxide emissions by 55 % by 2030, compared to the 1990 level. These are ambitious goals and setting an intermediary target shows that EU is intended to act fast. Without doubt, EU is making an impressive effort to implement the EGD and to reach its goals.

However, when we look at the present state of affairs, we can say that there is still a long way to run in a very short period. Because, as noted by the European Commission in the latest "Climate Action Progress Report", despite a significant trend toward carbon emissions reduction, the average reduction level is not sufficient yet. The Commission notes that "an emission reduction of 134 Millions of tones CO2-eq needs to be achieved every year from now until 2030, on average. This is a slightly larger reduction compared with the annual average cut of about 120 Millions of tones CO2-eq seen over 2017-2023" (European Commission, 2024). We need to ask how this calculation will be changed until 2030 in case if yearly targets are not reached. Probably, each yearly shortcoming will increase the reduction targets of coming years until 2030, which will make the overall target even harder to reach.

Similarly, the European Environment Agency's (EEA) findings are in accordance with those of the Commission. EEA warns that "current efforts are not yet sufficient to achieve climate neutrality, or to achieve at least 55% net emission reduction target in 2030" and that "the pace of annual absolute GHG emission reductions must more than double" (EEA, 2023).

Strategies to reach the emission reduction targets cover all economic sectors. But one sector becomes prominent, this is the "clean energy" sector. EGD notes:

"Further decarbonising the energy system is critical to reach climate objectives in 2030 and 2050. The production and use of energy across economic sectors account for more than 75% of the EU's greenhouse gas emissions." (European Commission, 2019)

EU has always depended to external markets for energy, and now it decides to bring an end to this dependency by producing its own energy from clean and renewable sources. The war in Ukraine which started at the beginning on 2022 has accelerated the EU's clean energy transition. Particularly in the first months of war, EU suffered from lack of Russian gas, which triggered an increase in energy prices. Another traditional fossil energy provider to Europe, Iran, is already under the UN sanctions, which prevents this country to be a partner of EU.

The increase in the share of renewable energy sources plays a crucial role both in the decarbonization process and energy independency of Europe. Recent decade witnessed a big leap forward in this sector. Wind power plants and solar power plants become much more wide-spread than the previous decade, and more importantly, investment costs for these facilities decreased to much reasonable levels. However, despite all efforts, EU remains still behind its targets. EU's target for the share of renewables is raised to 45 % for 2030, in early 2023 (Dekeyrel, 2024), but according to the European Environment Agency, this can be reached only with an annual increase

of 2,2 % which occurred only in 2020 due to the decline in energy consumption related to the Covid 19 pandemic (EEA, 2023).

Concerning the existing technologies, the solar panel installation is problematic in many respects. First, as said, despite all development, solar energy is not enough to satisfy industrial energy need of Europe. Secondly, it depends on the materials to be exported (Sipka *et al*., 2024) from outside of Europe and these materials need to be extracted as well. In terms of materials, this technology depends on limited natural sources just like fossil energy sources. Thirdly, as solar farms require much more land than carbon-based energy plants, finding sufficient suitable land for solar panels is another challenging issue (The Nature Conservancy, 2024).

It seems that the GHG emissions reduction targets are too ambitious and it is a challenge to reach them by all member countries within the foreseen time limits. It is almost impossible to reach the EGD goals by promoting clean energy instead of fossil energy sources. We need to ask, in these circumstances, how the EU will reach the overall EGD targets, if not only by clean energies.

It is worthy to take a closer look at the wording of the EGD. It says "an economy where there are no net emissions of greenhouse gases" or "first climate -neutral continent" (European Commission, 2019). The tricky point is that climate neutrality does not mean zero emissions but emissions reduced to a level that can be absorbed by carbon sinks, which play "an essential role" according to the Climate Law (European Union, 2021). Carbon sinks are firstly natural areas where carbon dioxide turns to oxygen, which are the forests. 47 % of the European land area is covered by forests and it is enlarging. The European forest area has enlarged 5% since the year 2000. Although this is a positive fact about the carbon absorption capacity of Europe, it is not sufficient. EU needs and hopes to find other ways to absorb carbon dioxide to become carbon neutral. The Net Zero Industry Act (European Union, 2024), which is a key part of the EGD, offers support for strategic technologies and industries for carbon absorption (McNamara, 2023) and puts the target to reach 50 million CO_2 storage capacity by 2030. This storage will be made by carbon capture technologies, which means carbon dioxide storage in deep underground geological reservoirs.

However, in the present state of affairs, carbon capture technologies are not present in the market in the form of an efficient and secure technology. We still do not know yet what will happen in case of a leaking. A leaking from an underwater carbon reservoir can have deadly effects for the water ecosystem.

Last but not least, another obstacle in front of the EDG targets is European Liquid Nitrogen Gas exports. Major European liquid fuel providers signed 27-year LNG import agreements with Qatar, with deliveries starting in 2026, exceeding even the EGD's 2050 deadline (Sipka *et al*., 2024). It is obvious that if the EU will use the imported LNG, it will get far from the EGD targets.

3. INDUSTRY

The EGD notes that "Achieving a climate neutral and circular economy requires the full mobilisation of industry. (…) The EU's industry has started the shift but still accounts for 20% of the EU's greenhouse gas emissions" (European Commission, 2019). Then, EGD text mentions the Industrial strategy to be adopted in 2020 and puts the target to transform even the most polluting sectors. EGD says: "Energy-intensive industries, such as steel, chemicals and cement, are indispensable to Europe's economy, as they supply several key value chains. The decarbonisation and modernisation of this sector is essential" (European Commission, 2019).

This strategy is adopted in 2023 under the name of "The Green Deal Industrial Plan for the Net-Zero Age". This is private sector-oriented plan to support investments in green energy sectors. It says: "The Green Deal Industrial Plan aims to simplify, accelerate and align incentives to

preserve the competitiveness and attractiveness of the EU as an investment location for the net-zero industry" (European Commission, 2023).

This text presents the green transition as an opportunity to be seized. It notes that "within a few years (…) new markets will have been created, breakthrough clean technologies will have been innovated, developed, and brought to market, and our energy systems transformed. Therefore, those who invest first and faster today will secure their place in this new economy and create jobs for a newly skilled workforce, rejuvenate industrial manufacturing bases, lower costs for people and businesses and be in a prime position to support other parts of the world to decarbonise their own economies." (European Commission, 2023).

Like the EGD, Europe's industrial green transition bid has a global perspective as well. EU declares to be ready to collaborate with its partner for a green transition at the global level. It says:

"And the encouraging signs are that Europe's partners are also beginning to seize the net-zero industrial opportunities. The United States' Inflation Reduction Act will mobilise over USD 360 billion by 2032 (approximately EUR 330 billion). Japan's green transformation plans aim to raise up to JPY 20 trillion (approximately EUR 140 billion) – through 'green transition' bonds. India has put forward the Production Linked Incentive Scheme to enhance competitiveness in sectors like solar photovoltaics and batteries. The UK, Canada and many others have also put forward their investment plans in clean tech technologies. Europe is committed to working with all of those partners for the greater good." (European Commission, 2023).

As said, the expectancy of the new technologies has a crucial place in the industrial green transition scheme. However, relying so much on new technologies to be invented sounds risky. Some scholars criticize this approach as "sounding like technoutopian fantasies" (Kaul *et al*., 2022, p. 1150) that depend on technological fixes of "*deus ex machina* character" (Dyer-Witheford et al. 2023).

Industrial green transformation is considered as a competition factor, and a cooperation factor at the same time. The Green Deal Industrial plan notes that: "We can also create new forms of clean tech cooperation with our partners abroad. By working together with partners on developing net-zero technologies, diversifying and strengthening supply chains, and supporting others on their green transition, the race to net-zero can be good for the planet and for business." (European Commission, 2023).

Following its adoption in 2023, this plan is criticized by remaining too abstract and not bringing concrete implications: It covers mostly principles, funding framework, and employment issues. The financial support is organized in form of many EU funds and programs, such as REPowerEU program, Just Transition Fund and InvestEU program.

Concerning the allocation of EU funds and programs, a concern arises: The big suppliers of fossil energy and big producers of energy-intensive goods, such as private cars, benefit largely from these financing opportunities (Jene, 2022). EU's financial support is directed towards countries with more production in carbon-intensive sectors, which results rewarding the polluting countries.

4. FOOD

The European Green Deal puts forward that Europe is the world standard in sustainable food production, but notes also that food production in Europe still causes environmental pollution, biodiversity loss and climate change, and that there are health problems due to food waste and poor-quality nutrition. As a response to these challenges the EGD suggests that "strategic plans to support organic agriculture, agroecology, agroforestry and stricter standards in terms of animal protection" needs to be adopted.

A Strategy paper prepared in accordance to the EGD covers the European food system. It is entitled "Designing a Fair, Healthy and Environment Friendly Food System from Farm to Table" (European Commission, 2020), or briefly "farm to table strategy". Franz Timmermanz, ex-vice President of the EU Commission qualifies the farm to fork strategy as the "heart" of the Green Deal. Food and agriculture have always had an important place for the EU. Currently, 40 % of the EU budget is allocated to agricultural production, and this share was around 70 % in the first decades of the European integration.

Farm to fork strategy aims to reduce environmental impact of European food production. And it concerns not only European food producers but also everyone all around the world selling food and food products to the EU market. Even the EGD notes that "Imported food that does not comply with relevant EU environmental standards is not allowed on EU markets." (European Commission, 2019).

Farm to fork strategy is a document that identifies problems across all stages of the food supply chain—from agricultural production to the consumer—proposes solutions by mostly setting concrete targets, outlines the legal frameworks to be amended or newly introduced, and specifies the means and financial instruments through which the EU will provide support during the implementation phase. An action plan is annexed to the document, detailing the timeline for each step to be taken within the scope of the strategy.

Strategy observes that the EU needs a more sustainable, fairer and resilient food system. Within this framework, the urgency of issues such as "reducing dependence on pesticides, limiting excessive fertilizer use, promoting organic farming, improving animal welfare, and reversing the decline in biodiversity" is strongly emphasized (European Commission, 2020). The call for a high level of determination to significantly reduce the use and risks of agricultural chemicals is one of the most controversial aspect of the new food strategy.

Reducing the use of synthetic fertilizers and agricultural chemicals is a particularly significant concern; although there has been a 20% reduction in such usage within the EU over the past five years, a 50% reduction in the use of the most hazardous substances is targeted by 2030 (European Commission, 2020).

While these objectives are largely seen as indispensable for sustainability, it should be noted that they remain subject to debate. Indeed, on 25 June 2021, a heated discussion took place in the French Senate—representing the largest consumer of chemical fertilizers in Europe—regarding the Climate Law.

During the debate on Article 62, which concerns ecological farming, the chamber was divided between those advocating the penalization of producers who use chemicals and those who opposed this approach, instead calling for support of alternative methods (Euractiv, 2021).

This division can be seen as a reflection of the broader fault lines within the EU concerning these issues. Mainstream large food corporations, agricultural producers' cooperatives and representative organizations want to maintain the business-as-usual way of agricultural production. On the other hand, consumer organizations, NGOs and environmentalists support transition to a chemical free agriculture. For example, the Secretary General of EuroCoop, umbrella organization of retail cooperatives, Todor Ivanov says that "sustainable food shall not be the privilege of a small minority" (Coopnews, 2021). But this voice is not always the strongest in Europe. Ex-Minister of Agriculture of France, Julien Denormandie argues that it is wrong to defend the organic agriculture against "polluters" and label the mainstream agriculture as such. And he implicitly supports them by saying that different kinds of agriculture shall not be in rivalry. (Euractiv, 2021).

Another controversial dimension of the farm to fork strategy is its suggestion to introduce a new European food labeling system. The proposed labelling system involves mandatory labeling on the front side of food packages, showing the origin, nutritional quality and environmental impact of the produced food. The farm to fork strategy envisages the implication of this system by 2024. However, due to the heated debate around it, the legal framework has not been clarified yet. In accordance with the dichotomy about the use of chemical fertilizers, conventional food producers want the label to be optional and not mandatory. Not surprisingly, consumer organizations and environmentalists argue that, if not mandatory, the labeling system will be useless. Actionaid, an umbrella organization of 32 organizations representing NGOs focused on healthy food and environmental protection, published an open letter just after the adoption of the strategy. They noted that:

"We are concerned that the European Green Deal does not reflect the urgent systemic changes our food system needs and does not include concrete commitments to achieve a fundamental transformation." (Actionaid, 2019) Besides, Actionaid called the EU to refer to the strategy in its trade agreements and to use it as a diplomacy tool to promote sustainable food all around the world.

The French agricultural cooperatives association La Coopération Agricole prioritizes that the ecological/agricultural transformations planned to take place in the food supply chain do not harm the competitiveness of producers and sees the European Trade Policy as an important tool in this context. The organization's main expectation is, in summary, that criteria related to the protection of health, the environment, society and animals are taken into account when making trade agreements with foreign countries and that the transformation outside Europe is synchronized with that in Europe. (La Coopération Agricole, 2021)

In summary, we can group the Strategy's goals under four headings: "Reducing the environmental and climate footprint of European food systems, increasing the resilience of food systems, ensuring food security and expanding the global transformation towards competitive sustainability from farm to fork."

Last but not least, it is worthy to mention also structural critics raised against the current agricultural green transition process.

If the Green Deal and the Farm to Fork Strategy are to claim to provide solutions to the current problems of the European food system, they should do so by addressing not only the ecological aspect of the current crisis but also its dimension related to the economic paradigm. In this context, it would be useful to consider the food system as a platform where non-profit-oriented actors can exist, rather than seeing it as a mechanism focused solely on the market and competition.

5. CONCLUSION

The European Green Deal presents itself as a transformative project aiming to decarbonize the European economy while ensuring a just transition across all sectors. However, as this analysis has demonstrated through the cases of the energy, industry, and food sectors, the implementation of the EGD reveals a number of contradictions and unresolved tensions. The ambitious climate neutrality targets depend on technologies and infrastructural shifts—such as carbon capture systems and renewable energy expansion—that remain either technically uncertain, economically costly, or politically contested. Moreover, the notion of "climate neutrality" itself masks ongoing dependencies on extractive practices and global supply chains that reproduce environmental burdens elsewhere.

In the food sector, the Farm to Fork Strategy lays out a comprehensive vision for sustainable food systems. Yet, the political economy surrounding agriculture in Europe complicates this transformation. The resistance of dominant agri-business actors and the fragmentation of political

will among member states reflect deeper ideological divides regarding the future of food production. Moreover, the strategy's goals—though commendable—face implementation bottlenecks, as seen in debates over chemical use, food labeling, and trade alignment.

What emerges from this assessment is a clear need to reframe the European Green Deal not only as a technological and environmental agenda but also as a socio-economic and institutional transformation. Addressing ecological degradation without confronting the growth-oriented and competition-based logic of the European food and energy systems risks reproducing existing inequalities and inefficiencies under a green label. A meaningful green transition must thus incorporate a pluralistic and inclusive vision of sustainability—one that reimagines governance, production, and consumption beyond market-centric models.

REFERENCES

ACTIONAID. (2019). "CSO's Open Letter to European Commission on the Farm to Fork Strategy to Achieve Sustainable Food". https://actionaid.org/publications/2019/csos-open-letter-european-commission-farm-fork-strategy-achieve-sustainable-food (12.06.2025)

COOPNEWS. (2021). "European Retail Coops to Work on Code of Conduct for Farm to Fork Strategy". https://www.thenews.coop/152886/sector/retail/european-retail-co-ops-to-work-on-code-of-conduct-for-farm-to-fork-strategy/ (20.05.2025)

DEKEYREL, S. (2024). "The European Energy Crisis: Shock Therapy for The EU's Clean Energy Transition. European Policy Centre." https://epc.eu/en/Publications/The-European-energy-crisis-Shock-therapy-for-the-EUs-clean-energy-tr~575954 (04.04.2025)

DYER-WHITEFORD, N., HANSEN, B. R. and LEONARDI, E. (2023). "Degrowth Communism: Part I." *PPPR*. https://projectpppr.org/populisms/do437fp7nbqzgdnamujml283za7t7u

EURACTIV. (2021). "Loi Climat: Débats Tendus Autour Du Volet 'Agroécologie'". https://www.euractiv.fr/section/agriculture-alimentation/news/loi-climat-debats-tendus-au-sujet-du-volet-agroecologie/?utm_source=piano&utm_medium=email&utm_campaign=10209&pnespid=kbk0svdbXAuNzHIR5AzQk_NM5MJ2uq1UMSZ7jvyehQ (15.04.2025)

EUROPEAN COMMISSION (2019). Communication From The Commission To The European Parliament, The European Council, The Council, The European Economic And Social Committee And The Committee Of The Regions: The European Green Deal (COM/2019/640 final). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2019%3A640%3AFIN

EUROPEAN COMMISSION (2020). Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions. A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system COM (2020) 381 final. European Commission. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0381

EUROPEAN COMMISSION (2023). Communication From The Commission To The European Parliament, The European Council, The Council, The European Economıic And Social Committee And The Committee Of The Regions: A Green Deal Industrial Plan for the Net-Zero Age (COM 2023/62 final). European Commission. https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_23_510/IP_23_510_EN.pdf

EUROPEAN COMMISSION (2024). EU Climate Action Progress Report 2024. Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52024DC0498 (01.05.2025)

EUROPEAN ENVIRONMENT AGENCY (EEA). (2023). Trends and Projections in Europe 2023. European Union Publications Office. https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2023 (10.03.2025)

EUROPEAN UNION (2021). Regulation (EU) No 221/1119 of the European Parliament and of the Council of 30 June 2021 on establishing framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (European Climate Law). Official Journal of the European Union, L 243, 1-17.

EUROPEAN UNION (2024). Regulation (EU) 2024/1735 of the European Parliament and of the Council of 13 June 2024 on establishing a framework of measures for strengthening Europe's net-zero technology manufacturing ecosystem and amending Regulation (EU) 2018/1724. Official Journal of the European Union, L series, 1-63.

HAWKEN, P., LOVINS, A. B. and LOVINS L. H. (1999). *Natural Capitalism: The Next Industrial Revolution*. London. Earthscan.

HOPWOOD, B., MELLOR, M. and O'BRIEN, G. (2005). "Sustainable Development: Mapping Different Approaches" Sustainable Development, 13(1): 38–52. https://doi.org/10.1002/sd.244

JENE, K. (2022). European Green Deal Strategy and The Implications for Employment. *Vectors of Social Sciences*, 3, 23-31. https://doi.org/10.51895/VSS3/Jene

KAUL, S., AKBULUT, B. and DEMARIA, F. (2022). "Alternatives To Sustainable Development: What Can We Learn From The Pluriverse In Practice?" Sustainability Science. 17: 1149-1158. https://doi.org/10.1007/s11625-022-01210-2

LA COOPÉRATION AGRICOLE. (2021). "Révision De La Politique Commerciale De l'Union Européenne: Faire Rimer Compétitivité Et Durabilité". https://www.lacooperationagricole.coop/fr/actualites/revision-de-la-politique-commerciale-de-lunion-europeenne-faire-rimer-competitivite-et-durabilite (23.04.2025)

MCNAMARA, K. R. (2024). Transforming Europe? The EU's Industrial Policy and Geopolitical Turn. Journal of European Public Policy, 31,9: 2371-2396. https://doi.org/10.1080/13501763.2023.2230247

OECD. (2017). Investing in Climate, Investing in Growth. OECD. https://www.oecd-ilibrary.org/docserver/9789264273528-en.pdf?expires=1711869410&id=id&accname=guest&checksum=9A2A48D3F8A8E36853C80FBE138769BC (12.04.2025)

PEARCE, DW., MARKANDYA, A. and BARBIER, E. (1989). *Blueprint for a Green Economy*. London. Earthscan.

SIPKA, S., RAYNER, L., DEKEYREL, S., LAUSBERG, P. and BRADY, D. (2024). "The Green Deal in Times of Polycrises: Aligning Short-Term Responses with Long-Term Commitments." European Policy Centre. https://www.epc.eu/content/PDF/2024/TheGreenDeal_DP_v5.pdf (10.06.2025)

THE NATURE CONSERVANCY. (2024). Building Europe's Renewable Energy Future. Retrieved from https://www.nature.org/en-us/about-us/where-we-work/europe/stories-in-europe/renewable-energy-people-nature-europe/ (18.05.2025)

UN. (2015). Transforming Our World: The 2030 Agenda For Sustainable Development. Retrieved Fromhttps://documents.un.org/doc/undoc/gen/n15/291/89/pdf/n1529189.pdf?token=cpUY2YTDlaJi7E5UJ9&fe=true (30.04.2025)

UNEP. (2015). Uncovering Pathways Towards An Inclusive Green Economy: A Summary For Leaders https://wedocs.unep.org/bitstream/handle/20.500.11822/9838/-_Uncovering_Pathways_towards_an_Inclusive_Green_Economy_a_Summary_for_Leaders-2015IGE_NARRATIVE_SUMMARY_Web.pdf.pdf?sequence=3&amp%3BisAllowed=y%2C%20Portuguese%7C%7Chttps%3A//wedocs.unep.org/bitstream/handl (17.06.2025)