

Main Priorities for A Green Deal Towards A Climate - Neutral Europe

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In 2019, the European Commission (EC) issued a communication on the European Green Deal (EGD), which marked a major transformation of the national economy to ensure a Europe neutral in 2050. One of the biggest challenges today is climate change, which is leading to environmental problems. To reduce these threats and risks to the world and humanity, the UN adopted 2015 the Paris Agreement, the United Nations (UN) Framework Convention on Climate Change, which sets out actions to reduce the effects of climate change. In 2019, the EC issued a statement stating that the European Union (EU) would be the first climate-neutral part of the world in 2050. To achieve this goal, activities, and goals to reduce greenhouse gas emissions by 55% by 2030 are set within the framework of the EGD. Transformation processes will be a comprehensive change in all sectors of the tangible economy, making the EU's economy competitive, and innovative, promoting resource efficiency, moving to a clean, circular economy and halting climate change, preventing biodiversity loss, and reducing pollution.

The article analyzes the goals and significance of the EGD toward a climate-neutral Europe. The aim of the article is to analyze the planned activities of the EGD, to evaluate the involvement of the state and society in achieving these goals.

KEYWORDS: green deal, climate-neutral Europe, priorities.

Historically, the 17th-19th centuries marked a large increase in production, leading to an increasing increase in the use of non-renewable resources. With the significant increase in the period of industrialization, the development of science, and the emergence of new opportunities, the level of human comfort and the desire to live better have increased. Human needs have become increasingly important and environmental considerations have been less and less taken into account in the production of goods in a way that ensures the comfort of life. In the middle of the 20th century, scientists increasingly pointed out that the most important consideration for the existence of society and economic growth are man-made consequences, risks - wars, uneven economy, limited natural resources, and ecological problems. And in light of these considerations, another very important aspect is overcrowding. According to UN data, until the 21st century. by the end of the year, the number of people will reach 11 billion. and given these aspects of the consumer society, the increasing use of non-renewable resources, the exchange of goods, and the creation of large mountains of waste make it necessary to talk about environmental problems. Our planet can't observe our wastes. For us to function properly and exist in society, environmental and ecological issues have become part of our daily lives, as we increasingly need to think about access to water, quality, food security through sustainable energy, and waste reduction (Sikora, 2021).

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Abstract

Introduction



The Russell - Einstein Manifesto, published in 1955, is the beginning of the concept of sustainable development. It highlighted the dangers of nuclear weapons and, with the help of this Manifesto, issued in London during the Cold War, called on world leaders to find peaceful solutions to conflicts. From now on, the term “sustainable development” has been increasingly used to denote the importance of ensuring a level playing field for future generations and the need to take political responsibility for decisions made or not made (Butcher, 2005). The concept of sustainable development attracted public attention in 1972 when the scientists of the Club of Rome published the book “Limits to Growth”, in which possible world development scenarios were programmed with the help of a computer. Although this book was published in 1972, its position is still valid today: modern civilization has limits to growth determined by nature itself, and people, if they want to survive, have to think of a border beyond which unintended consequences begin (Meadows, D.M., Meadows, D.L., Randers, J., Behrens, W.W., 1972). 2100 was marked as the year of the crisis when the world will no longer be able to ensure the survival of civilization without changing its habits. 1973 was marked by the global energy crisis, and this year the German-born British scientist E.F. Schumacher published a collection of essays “Small is beautiful”, which analyzed and emphasized low-tech policy as a very suitable solution to the principle of “bigger is better” (Schumacher, 1973).

In 1972, world leaders reaffirmed scientists’ concerns about the environment, and in 1972, the first UN Environment Conference was held in Stockholm. This conference marks a turning point, as several principles were adopted to ensure that environmental issues are properly managed and that solutions are sought between economic growth, water, air pollution, and the role and existence of man in the world. The concept of “sustainable development” was first published in Gro Harlem Brundtland’s 1987 report “Our common future, also known as the Brundtland Commission’s report. Definition of sustainable development” is as follows: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987). The concept of sustainable development is described by the Venn diagram, which includes the three “E” (environment, economy, and equality). For society to be able to adhere to the basic principles of sustainable development, there is more and more talk about the inclusion of the fourth “E”, which is education. Sustainable management reduces natural disasters, food insecurity, mass migration, etc. risks that would require an extraordinary response, as well as significant costs. Thus, the issue of sustainability is relevant for economic policymakers. Aware of the consequences and challenges of climate change, the European Union unveiled a comprehensive European Green Plan in 2019 to ensure economic transformation and facilitate the European Union’s transition to a climate-neutral economy. The goal is to reduce greenhouse gas emissions by 55% by 2035 and to be a climate-neutral part of the world by 2050 (European Commission, 2019). Although the EU’s target of reducing GHGs by 55% by 2030 initially seems sufficient to mitigate the negative effects of climate change, the Intergovernmental Panel on Climate Change (IPCC) assessment is not sufficient to reduce GHG trends and meet the target 1,5 degrees to reduce the temperature. Consequently, to meet these commitments, the EU must reduce GHGs by at least 65% by 2030 compared to 1990 to comply with the principle of fairness of the Paris Agreement. To comply with the principle of justice in the Paris Agreement, the signatory countries must commit themselves to being leaders in promoting climate neutrality in the Member States with greater emissions responsibilities and greater financial resources.

Literature review

Over the last 15 years, green economies have become increasingly important and have been given an increasing role by policy makers. The green economy encompasses many different concepts, such as the green growth, the circular economy, cleaner production approaches, the bioeconomy, dematerialisation and tools such as life cycle assessment (Loiseau, et.al., 2016). The key elements of green growth consist of the synergies between economic activities and

environmental challenges (Wanner, 2015). Green growth aims to make capitalism greener by incorporating technology innovation, green investment and green consumption (Ossewaarde et al., 2020). The key concept of green growth is that economic growth can be “decoupled” from negative environmental impacts, thus arguing that economic growth is possible without the excessive, reckless use of “natural resources” (Machin, 2019).

Given the fundamentals of green growth, new solutions can create new jobs, new, innovative technologies, increase production and change consumption patterns. One of the key aspects that Ossewaarde considers is that external factors, such as biodiversity loss and pollution, which economists call climate change, are leading to new investment. For example, to reduce the use of non-renewable resources, solar and wind energy are offered as alternatives to energy production. As a result, new solutions, innovations, new jobs are created, which significantly affect economic development and promote GDP growth. By defining the symbiosis of environmental protection with economic development in this way, it does not raise concerns about the possibility of regression and massive job losses, which would affect the decline in living standards. According to Machin, the creation of green growth does not affect the structures of oligarchic power (Machin, 2019). Prior to the endorsement of Green Growth in the EU, the concept of Green Growth began in documents of international organizations OECD, UN and World Bank. One of the milestones was in 2005 with the Fifth Ministerial Conference on Environment and Development in Seoul, and fifty-two governments in Asia-Pacific agreed to “Green growth” (D’Souza, 2017). After this conference, green growth was the most widely accepted decision and solution to address environmental problems and halt the degradation of the natural environment (Sandberg, et al., 2019).

In Europe 2020, the EC made it clear that it is possible to combine environmental protection with GDP growth, so the environmental friendliness of the economy was also seen as a favorable factor for growth and growth.

In December 2019, the EU introduced its EGD, arguing that “tackling climate and environmental-related challenges (...) is this generation’s defining task”. EC presented EGD as ‘a new growth strategy to make the EU a fair country and a prosperous society’ (European Commission, 2019 a). One of the aims of the EGD is to tackle the ecological crisis and tackle climate change and its consequences, with a view to making the EU the world’s first climate-neutral part by 2050. The EGD program aims to pursue two strands: to ensure the well-being of all and to overcome the anthropogenic state, which is indicated as the reduction of floods, droughts, heat waves. The EU is therefore adopting major transformation measures aimed at reconfiguration.

The European economy is undergoing a major process of economic transformation, giving priority to environmental issues. It can therefore be pointed out that the EU is making a revolutionary choice towards a new EU that is in harmony with the biosphere (Slatin, 2019). The concept of green growth includes the harmonization of the economy and ecology, replacing the existence of an ecologically degrading industrial economy. (Loiseau, et. al., 2016) Consequently, evaluating from this perspective, environmental protection is not an expensive constraint, but a high-return investment opportunity (Rosenbaum, 2017).

Qualitative analysis methods were used in the development of the article. Initially, a literature review was performed, evaluating the scientific literature - scientific articles, books on sustainable development, green growth, green economy. Subsequently, the UN, EC documents on sustainable development, the green course were evaluated, evaluating the set goals and the planned measures to achieve them. Quantitative methods were used to analyze the secondary data.

Hypothesis: In order to achieve the goals of the EGD, it is necessary to develop a model for the assessment of environmental problems in order to promote the full involvement of government and society in achieving the goals.

The aim of the article is to analyze the planned activities of the EGD, to evaluate the involvement of the state and society in achieving these goals.

Results

Climate changes and causes. All these aspects: rapid industrialization, energy use, agricultural practices, transport, pollution are made rising temperatures, an increase in extreme weather events, loss of wildlife and biodiversity.

Figure 1 shows the total GHGs in the EU from 1990 to 2019, where GHG reductions were observed during this period. Significant GHG reduction in 2009 was affected by the global financial and economic crisis, which significantly reduced industrial activity. If we compare the changes caused by GHGs, then in 2019. there is a 24% reduction in GHG compared to 1990 and in absolute terms, it is 1182 million tonnes.

Figure 1

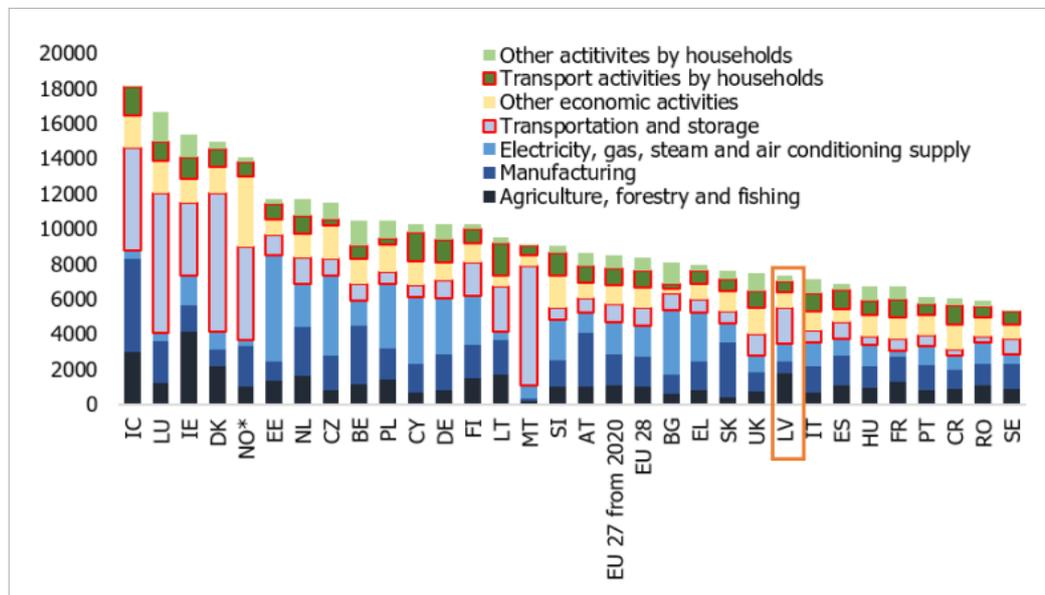
Greenhouse gas emissions (including international aviation, excluding LULUCF), trend, EU, 1990-2019



Source: European Environment Agency (online data), Eurostat

Picture 1

The overall volume of GHG emissions (kg/ per capita per year) in European countries in 2019



Source: Eurostat data

Comparing the data with the European Union member states, GHG emissions per capita can be concluded that the largest share is caused by emissions from agriculture, transport, and energy. Iceland, Luxembourg, Ireland, and Denmark have the largest share of share in the EU Member States. GHG emissions from transport as well as GHG emissions from production account for the largest share in these Member States.

In 2015, the United Nations General Assembly adopted a resolution Transforming Our World: A Sustainable Development Agenda for 2030, or Agenda 2030 (United Nations, 2015 a). It sets out 17 Sustainable Development Goals (SDGs) and 169 sub-targets to reduce global poverty and poverty. global development is sustainable. SDG is balanced in three dimensions: economy, social aspects, and the environment. The SDGs are relevant to all countries and can only be achieved by joint efforts, at the same time part of the SDGs is largely in line with the challenges and goals of the national level. Given the relatively wide range of topics covered by the SDGs, countries choose the most relevant goals for them to focus on by 2030, according to the priority goals to be achieved at the national level, thus adapting the SDGs to their needs and incorporating national and societal SDGs into national development planning. Higher-performing countries take the initiative to promote the development of other countries, reduce poverty and play a key role in promoting sustainable development. To build a success the concept of sustainable development of the concept is important to involve scientists, leaders, and entrepreneurs, and that is why conferences and forums are held to look for the best, most appropriate solutions.

The Agenda 2030 envisages that the whole society, incl. - citizens, businesses, politicians, national associations, the United Nations, and other institutions. The European Union has already begun work on the next programming period, with Agenda 2030 as the framework (United Nations, 2015 a). The 13th aim is "Climate action", which includes Taking urgent action to combat climate change and its impacts.

A circular economy is an innovative approach to eliminating emerging environmental problems caused by increasing resource depletion, accumulation of non-recycled waste, growing environmental pollution, and climate change. The concept of the circular economy is an increasingly attractive approach to tackling current sustainability challenges and facilitating a shift away from the linear "take-make-use-dispose" model of production and consumption (Klein, Ramos, et al., 2020). The development of this new paradigm started nearly half a century ago in the minds of innovative designers, promoted by think tanks such as the Ellen MacArthur Foundation (Webster, MacArthur, 2016) the Institute for Global Environmental Strategies (Ministry of Environment, Japan, 2019) and injected in policies and strategies of different countries in the world. Thus, CE is on the rise in the European Union, Japan, Canada, the USA, China, etc. The concept of the circular economy is increasingly being used to address sustainable development issues and to transform the linear economy into a resource-efficient economy model (Esposito et al., 2018).

It is clear that modern farming, in line with the principles of the linear economy, destroys the ecosystem, causing ecological problems. Thus, one of the solutions is the circular economy, which offers more sustainable solutions ensuring a longer product life cycle and materials are reused, thus extending their life cycle and are used in the production of new products. There are many definitions of circular economy, and the authors would like to forward the definition by Geissdoerfer and co-authors that are based on a thorough literature review, defining circular economy "as a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling (Geissdoerfer et al., 2017). "Circular economy is seen as one of the approaches to reach Sustainable Development Goals defined by the United Nations. The European Union

The Agenda 2030

Circular economy

launched its first circular economy action plan in 2015 (European Commission, 2015), and further on embarked CE as one of the basic stones in the new strategy document for reaching a more sustainable economy i.e. “The Green Deal” (European Commission, 2019).

The European Green Deal activities

In the light of the Paris Agreement to reduce air temperatures by 1.5 degrees, the EC launched a comprehensive European Green Deal (EDG) in late 2019, setting out smart and comprehensive, horizontal measures to ensure that by 2030. EU GHG reductions by 55% compared to 1990. The overarching goal is to make the European Union the world’s first climate-neutral part by 2050. An important document adopted by the European Parliament in April 2021 is the European Climate Act, which aims to transpose GHG emission reductions into law (European Parliament, 2021). Achieving this ambitious climate goal requires a transformation of the EU industry, thus stimulating sustainable economic growth, fostering technological innovation, creating new jobs, and improving the environmental and social performance of citizens. EGD promises to protect citizens from environmental harms and impacts, and to be just and inclusive. Wellbeing is to be put at the centre of economic policy.

By assessing the sectors with the highest GHG emissions, the EC has developed policies and targets to transform and adapt these sectors to meet climate neutrality goals. The key sectors are clean and secure energy at an affordable price, industry based on the principles of the circular economy, smart mobility with an emphasis on the transition to the electric car, agriculture (using organic products), etc., and the European Climate Pact integration (European Commission, 2019 b).

Although the EU is responsible for only 9% of global GHG emissions, according to Eurostat, the EU’s commitment to lead by example is to encourage other parts of the world to take significant steps to accelerate climate neutrality. The transformation of the economy, as envisaged in the EGD, requires changes to include environmental protection and climate issues as a horizontal principle in other legislation, which would also provide financial benefits in both the short and long term (Miccinilli, 2020). The integration of these criteria into legislation must derive from international law, such as the Paris Agreement (United Nations, 2015 b), the UN Agenda 2030 (UN 2015 a), and the Sustainable Development Goals.

The EGD aims to improve the well-being and health of citizens and future generations by promoting waste-free production, smart mobility, the construction of low-emission buildings, biodiversity, clean air and water, renewable energy production and use, and a circular and collaborative economy, greenhouse gas emissions and removals by sinks.

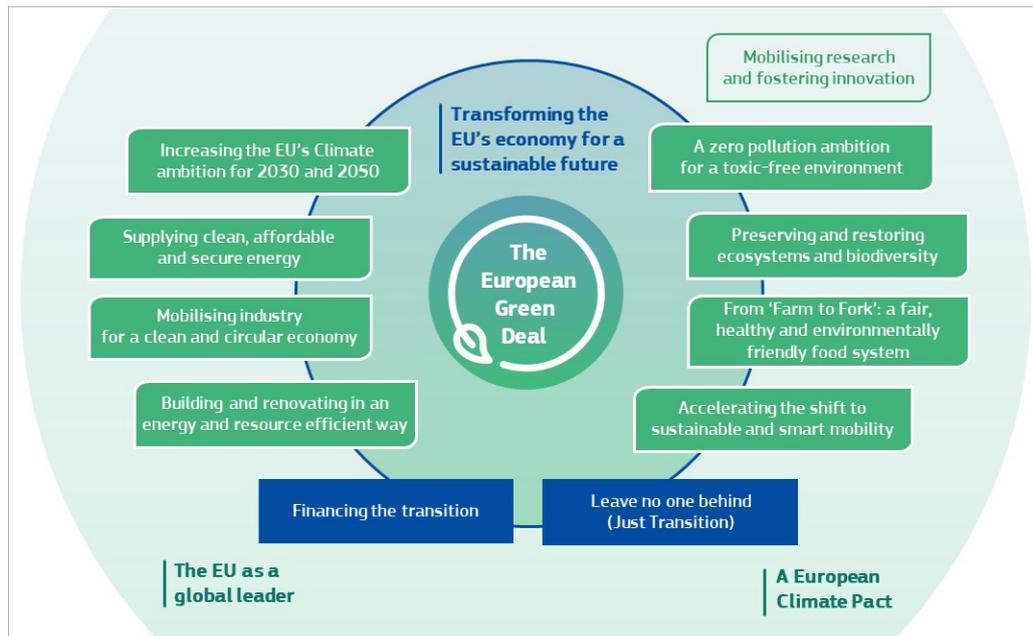
The EU has already started to modernize and transform the economy with the aim of climate neutrality. Much remains to be done, starting with more ambitious climate action in the coming decade.

EDG activities can be divided into 3 blocks:

- 1 Climate change targets to reduce GHG emissions (through transformation processes in sectors such as energy efficiency, mobility, construction, energy)
- 2 Environmental aspects, ensuring biodiversity, reduction of pollution;
- 3 A healthy and sustainable food system, ensuring an increase in organic food production through short supply chains, to ensure environmental and health aspects. (European Commission, 2019 a).

Cleaning our energy system.

According to the European Environment Agency, the EU’s largest source of energy comes from non-renewable oil and natural gas. According to Eurostat, energy production accounts for 75%



Picture 2

The European Green Deal activities

Source: European Commission *The European Green Deal* (2019)

of total EU GHG emissions. This is therefore one of the key elements in contributing to the EU's goal of climate neutrality. According to the EC, it will take about 25 years to bring about change, and for the EU to be ready in 2050, significant changes are needed now.

To ensure the transition to clean energy, the EGD includes the following principles:

- 1 A secure and affordable EU energy supply;
- 2 Creating a digital EU energy market
- 3 Improving energy efficiency and maximizing the use of renewable energy sources.

To achieve the set goals, it is necessary to increase the share of renewable energy consumption, which in 2020 accounted for about 22.1% of the energy consumed in the EU. Compared to the EU target of 20% in 2020, + 2% is met (Eurostat data).

In the EU in 2020, Sweden (60%), Finland (44%), and Latvia (42%) use the most renewable energy. Malta (11%), Luxembourg (12%), and Belgium (13%) have the lowest share of renewable energy. According to the EGD, the increase in renewable energy can also have a positive effect on employment. The goal is to reach an EU average of 40% for renewable energy. The proposals promote the use of renewable fuels, such as hydrogen, in industry and transport. One of the goals is for 2030 to reduce the reduction of final and primary energy by 36% - 39%.

Green Deal – mobility

Whereas the transport sector accounts for 25% of total GHG emissions, of which 75% is accounted for by road transport. Within the EGD, a change in the mobility of activities is planned. Mobility change includes the goal of identifying clean vehicles, and electric cars, and providing the necessary infrastructure to ensure charging. The EGD aims to reduce GHG emissions from the transport sector by 90% by 2050.

To achieve this goal, activities are needed that will promote the development of sustainable and intelligent transport. To ensure the planned GHG reduction by 2030 and reduce dependence on

fossil fuels, then according to EC estimates by 2030 will be more than 30 mln. emission-free cars (For comparison, in 2018 there were 292 million registered cars in Europe (Statista, 2018)) and more than 80 thousand emission-free trucks. Consequently, such changes are projected to reduce the impact of fossil fuels. Another important aspect of this change is the provision of charging points and sufficient capacity for electric vehicles. By 2025, around 1 million public charging and refueling stations will require 13 million zero and low emission vehicles.

Green Deal – construction and building renovation

In the European Union, buildings account for around 36% of total GHG emissions and are the largest consumer of energy, consuming around 40% of total energy. One of the challenges facing the EU is that most buildings are not energy efficient and use most fossil fuels. Thus, one of the activities is the renovation of buildings, where the main goal is to at least double or even triple the volume of renovated buildings, which is currently only 1%. The renovation of buildings must reduce both GHG and maintenance costs for heating and cooling. The EGD stipulates the construction of new buildings by 2030. must be done to ensure zero emissions to the building. The public sector must meet these requirements by 2027. To achieve zero-emission building construction, new buildings must use very little energy and make maximum use of renewable energy sources, and must not cause emissions to ensure the full functioning of the building.

Farm to fork

To promote the production of quality food, one of the activities under the EGD is the EU's "Farm to fork" Strategy, which aims to assess and reflect on all stages of the food supply chain to improve the sustainability of the food supply chain. It is important to implement this strategy, it is necessary to analyze it together with the Biodiversity Strategy because sustainable agriculture must take nature protection into account.

Farm to fork strategy sets out the following objectives:

- » To reduce the total use and risks of chemical pesticides by 50% by 2030 and to reduce the use of more dangerous pesticides by 50% by 2030.
- » Return at least 10% of agricultural land with very diverse landscape features.
- » By 2030, 25% of the EU's agricultural land must be organic (European Commission, 2020).

EU industrial strategy

One of the goals to achieve the goals of the EGD is to make changes in industrial processes towards climate neutrality. The EU's industrial strategy aims to encourage and support the industry to move towards innovation, growth and global competitiveness. It is important to make

changes in industrial processes to reduce dependence on others that provide critical materials. It would also boost the production of new products and boost competitiveness in the EU. (European Commission, 2021).

The EU is facing major changes to meet the goals set out in the EGD. Any significant change requires the involvement and understanding of all parties involved in the ongoing processes. As pointed out Sica (2019), the EGD is a transition that will encourage criticism of ecologically harmful cultures and provide solutions to go beyond green capitalism. As stated in the EGD, "transformational change" must be achieved by investing in large companies, with an emphasis on large technology companies that can contribute to and have a significant impact on "digital transformation". In order to promote and implement the activities set out in the EGD, changes are needed both in the setting of priorities at the national level, in the changing aspects of production

in business, and in the changing way of thinking and attitudes in society. In order to promote the process of economic transformation for the development of green industries, it is necessary to develop information and green technologies. Given the need for specific knowledge here, the state must carefully target subsidies for individual training as well as research. Therefore, the priority is research and knowledge that contributes to green growth and the achievement of the goals of the green course. New solutions are needed a new approach. As indicated above, public support and subsidies are also needed to ensure sustainable energy systems. By making such subsidies and supporting specific sectors, it is a political choice, which means redistributing funding between sectors and contributing to the greater development of a sector. Which, in turn, significantly affects the composition of the economy, as well as changes in the composition of society. In the case of the transformation process, it is also necessary to talk about institutional changes and changes in the field of taxation, because non-environmentally friendly solutions will be subject to a higher tax burden and green investments will be supported and subsidized.

To promote green growth, change involves a very wide range of policy instruments, including increased support for research, differentiated tax treatment, green public procurement, investment in green technologies. An important aspect is the setting of emission standards in sectors of the economy, such as manufacturing, transport and energy (Rosenbaum, 2017). The requirements set by the EGD will also significantly affect the change of society's debts in ensuring their quality of life. and it should be emphasized here that the richer the consumer is, the more he can afford it, and therefore the higher the GHG (transport, housing, clothing). And that is why, like the richer Member States, the wealthiest consumers should lead by example in achieving the goals of the EGD. In order to change the habits of the society, it is essential to involve the state closely, subsidizing, for example, the purchase of an electric car, thus promoting the purchase of emission-free transport. But the question is whether the amount of the grant will be able to provide full support to the middle-income person to buy this environmentally friendly vehicle. The commitment and involvement of all stakeholders is crucial to achieving the goals of the EGD. In the current situation, people are very concerned about work, livelihoods, housing and bills, and the EU institutions (including the Member States) should work with people to bring about lasting change. Because, as the EGD points out, citizens are and should remain the driving force.

To promote green growth, change involves a very wide range of policy instruments, including increased support for research, differentiated tax treatment, green public procurement, investment in green technologies. The EU aims to become the world's first climate-neutral part by 2050. This means that EU countries must reduce their greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. Consequently, changes in climate, energy, transport, and tax policies are expected. The EGD will bring about change in all sectors of the economy, introducing principles such as sustainable development and the circular economy. The EGD sets out a set of goals, strategies to be implemented over the next 10 years to promote Europe as the first climate-neutral part of the world and to facilitate the process of economic transformation. The EGD ensures a comprehensive transition of the economy to green growth. It is not only about reducing GHG emissions, it is about transforming the economy and society. The European Green Deal is the EU's flagship initiative. Achieving the objectives of the EGD requires promoting industrial change, ensuring clean energy, changes in transport, food, agriculture, construction, and changes in taxes and social benefits. It is essential to add value to the protection and restoration of the natural ecosystem by promoting more sustainable use of resources. Change must take into account the environmental, economic, and social aspects that are integrated into the concept of sustainable development. For these processes to be more successful, it is necessary to invest

Conclusion

in digital transformation, which is a very important driver of transformation. The EGD defines the way to change institutional and societal habits. Only a comprehensive approach can ensure an effective response to the ecological crisis and achieve the goals of the EGD. The commitment and involvement of all stakeholders is crucial to achieving the goals of the EGD.

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