

Specific Elements of the Implementation of Sustainable Development Goals in the EU and Romania

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Abstract

This article presents the current status of the implementation of Sustainable Development Goals (SDGs) in the UE and in Romania. As a methodology, the analysis starts from the Monitoring Report on progress towards the SDGs in the EU context, written in 2022. Furthermore, the authors of this paper shaped the actual picture of the implementation of Agenda 2030 in Romania by analysing the main indicators from the Eurostat database. The main objective of this study is to emphasise the progress and shortcomings that exist at the UE level, but also in Romania in relation to the implementation of Agenda 2030. One of the main results achieved in this research is that progress is identified for some SDGs, but more effort will be needed in the achievement of Agenda 2030.

Keywords: *Agenda 2030, Monitoring Report, Romania, UE*

JEL classification: F 53, G 18, Q 01, Q 56

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1. Introduction

The Brundtland Report (Brundtland, 1987) highlights the importance of ‘socially inclusive and environmentally sustainable growth’ for the sustainable concept. In the sustainable concept, equally important is the quality of life of the people, according to the socioeconomic development view of the society (Faucheux et al., 1998; Barrientos et al., 2011; Stimson et al., 2006; Dokurno et al., 2017). In 2004, the concept of sustainable development was adopted and introduced as an orientation measure for economic and social development of European countries and to build on the experience of more developed countries in the EU (Smith, 2007; Agere, 2000; Sotarauta et al., 2012; Gibney, 2012). Starting in September 2015, the United Nations adopted the 2030 Agenda and its 17 goals for sustainable development. The 2030 Agenda is a complex framework for

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preserving nature, humanity, and human rights (Firoiu et al., 2019). Agenda 2030 establishes the main principles of global sustainable development. Sustainability represents one of the most debated topics for this decade and Agenda 2030 explains how countries can achieve sustainability.

It is important to mention that the goals of Agenda 2030 are not placed on a hierarchical ladder, so they are of the same importance (Nagy et al., 2018). Since 2017, Eurostat has published annual reports to monitor progress towards SDGs in the context of the EU. The report published in May 2022 is the sixth report generated by Eurostat and analyses the progress of the EU in what concerns the fulfilment of the SDGs relative to the set of indicators of the SDGs of the EU (European Commission and Eurostat, 2022). The analysis of the SDGs and Index became a central point of several scientific studies (Schmidt-Traub et al., 2017; Hogan et al., 2018; Nhemachena et al., 2018). Based on a report published in May 2022 by Eurostat, the authors of these articles emphasise the current state of each SDG at the UE level, but also extracted the actual state of implementation of Agenda 2030 in the Romanian country.

For the goals of achievement of the Agenda 2030, significant investments are needed in the R&D domain, in innovation, and in the learning process during all stages of life (International Labour Organisation, 2020).

Recently, an improvement in agricultural productivity and ecofriendly practises was found, but more effort will be necessary to reduce pressure against agricultural areas, improve biodiversity, and to reduce greenhouse gas emissions (Clark et al., 2019).

Regarding the worldwide increase in life expectancy, it can be considered the result of reduced infant mortality, better living standards, improved lifestyle, access to education, and also research in medicine (Eurostat, 2020).

The strategic framework for European cooperation in education and training aims to reduce the number of graduates who do not succeed to assimilate digital competences to less than 15% (Consiliul Uniunii Europene, 2021).

However, the Covid-19 pandemic has increased challenges in determining the differences between women and men who participate in labor force, as a result of the higher percentage of women in maternity care (European Commission, 2021b). Although the economy has increased its potential between 2014 and 2017, primary energy consumption has also increased in this period (European Commission, 2019).

It should be mentioned that a large concentration of people and economic activities are the main determinants of air pollution, resulting in 7 million premature deaths each year (World Health Organisation, 2021).

We must emphasise that GDP has increased by 2.0% each year between 2014 and 2019, as a result of the increase in private consumption and the investment field (European Commission, 2020).

On the other hand, rural areas are more exposed to poverty, due to limited access to services, infrastructure, labour market and educational opportunities (Volonteuropa, 2016).

UE concerns about sustainable use of biological resources have initiated in Romania a wide range of initiatives in order to urge this process (Cristache et al., 2019). Romania has acknowledged and endorsed sustainable development strategies through the implementation of SDGs in line with its current status as a member country of UE (Sirbu et al., 2015; Bocean et al., 2018).

Within this context, the aim of this research is to highlight the progress and shortcomings that exist at the UE level, but also in Romania, having as prerequisites the Agenda 2030. This research is important for public authorities as a central point in the future decision needed for the achievement of Agenda 2030.

2. The objectives and methodology of the research

The main objectives of this article are as follows.

Identifying the current state of implementation of Agenda 2030 at the UE level.

Shape the actual picture of the implementation of Agenda 2030 in Romania.

The research methodology comprises the following.

The Monitoring report on progress towards the SDGs in an UE context written in 2022 was analysed and the main conclusion regarding the status of Agenda 2030 was emphasised. Second, the main indicators were searched in the Eurostat database. Third, filters for geopolitical entry and time entry were applied. Therefore, tables were generated in spreadsheet with the xlsx extension. Lastly, the data existing for Romania were analysed and extracted.

3. Findings

The purpose of SDG1, 'No poverty', is to eradicate extreme poverty and halve poverty until 2030 (European Commission and Eurostat, 2022). According to the European Pillar of Social Rights Action Plan, EU has to reduce at least by 15 millions the number of persons who are at risk to leave in poverty or to be socially excluded until 2030 (European Commission, 2021c).

Income poverty was the most spread form of poverty with a negative impact on 17.1% of the total population of the EU in 2020 (European Commission and Eurostat, 2022). When a person is at risk of poverty, the probability of that person to cover basic needs, such as being able to afford adequate housing or receive medical treatment when needed is low (European Commission, 2020). The second most spread form of poverty is severe material and social deprivation, including people that can't afford to buy 7 essential goods for a proper lifestyle, from a list of 13, with a negative impact on 6.8% of the total population of the EU in 2020 (European Commission and Eurostat, 2022). In the same year, 8.2% of people from EU lived in households where adults with 65 years of maximum age have worked 20% from their potential (European Commission and Eurostat, 2022).

Romania is on the top of the ranking for income poverty and severe material and social deprivation and on final of ranking regarding people leaving in households where adults worked 20% of their potential (see Figure 1).

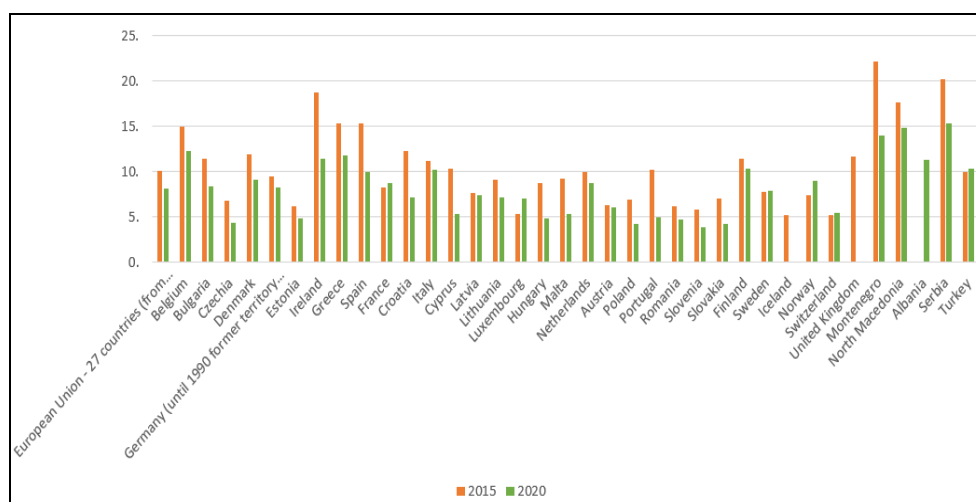


Figure 1. People living in households with a very low intensity of work, by country, between 2015-2020

Source: (Eurostat, 2022i)

SDG2, ‘Zero hunger’, proposes to eliminate hunger and malnutrition by ensuring safe, nutritious, and sufficient food for everyone (European Commission and Eurostat, 2022). To achieve this objective, sustainable production systems are needed, raising investment in rural infrastructure and in the field of research and development in agriculture (European Commission and Eurostat, 2022).

Lately, we can observe an increase in agriculture production in the EU, also in environmentally friendly practises, but future actions are needed to reduce the presure against agricultural areas, to enhance biodiversity, and to reduce greenhouse gas emission (Clark et al., 2019).

Labour productivity is part of sustainable agriculture and can be measured through the indicator ‘agricultural factor income per annual work unit (AWU)’. In recent years, the AWU, after the 2008 economic crisis, has raised, more exactly in 2021 increased with 36.7% compared with 2010 (European Commission and Eurostat, 2022).

As we can see in Figure 2, Romania is at the end of rank in what concern AWU, despite the fact that it is considered an agricultural country.

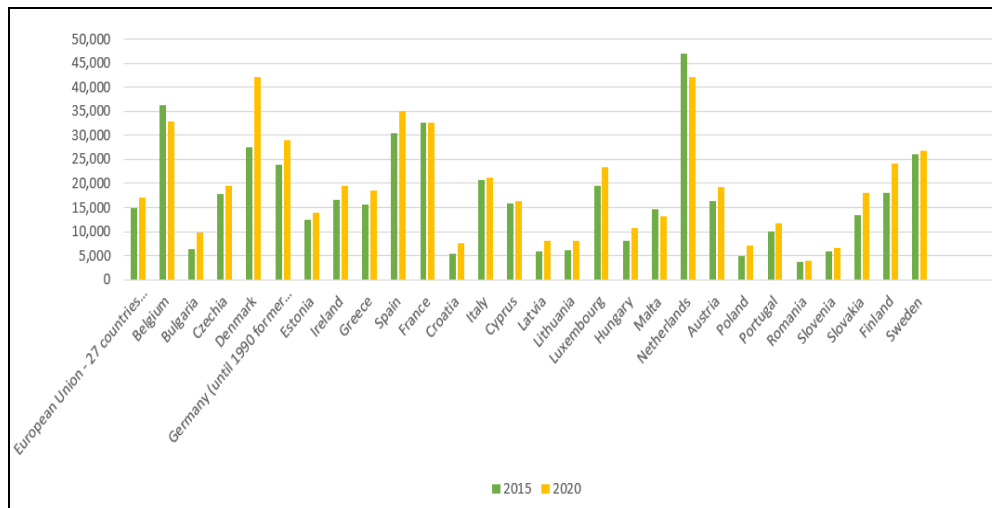


Figure 2. Income from agricultural factors per annual unit of work (AWU), on countries, 2015/2020 (EUR, chain-linked volume (2010))

Source: (Eurostat, 2022a)

SDG3, ‘Good health and well-being’, has as main purpose the spread of well-being for all ages through the improvement of health in children, maternal health, but also reproductive health, ending epidemics, reducing non-communicable and mental diseases, stopping behavioural and environmental health risk factors (European Commission and Eurostat, 2022).

In the monitoring process of SDG3, the European Commission & Eurostat used four main indicators: healthy lives, health determinants, causes of death and access to health care.

The access to health care services for all people represents one of the main objectives of UE, being considered as one of the fundamental rights of citizens (European Commission and Eurostat, 2022). If in 2005 3.3% of people complained about the inability to cover medical health care services, this percentage has decreased at 1.8% in 2020 (European Commission and Eurostat, 2022). However, this phenomenon has reversed during COVID-19 pandemics when access to medical health care services was totally stopped. Other reasons for the inaccessibility of medical health care services are the distance for people leaving in rural areas and the cost (European Commission and Eurostat, 2022).

As we can observe in Figure 3, Romania was on the top of the list in 2015 with respect to the unmet need for medical care, but this situation decreased considerably in 2020, before COVID-19 pandemic.

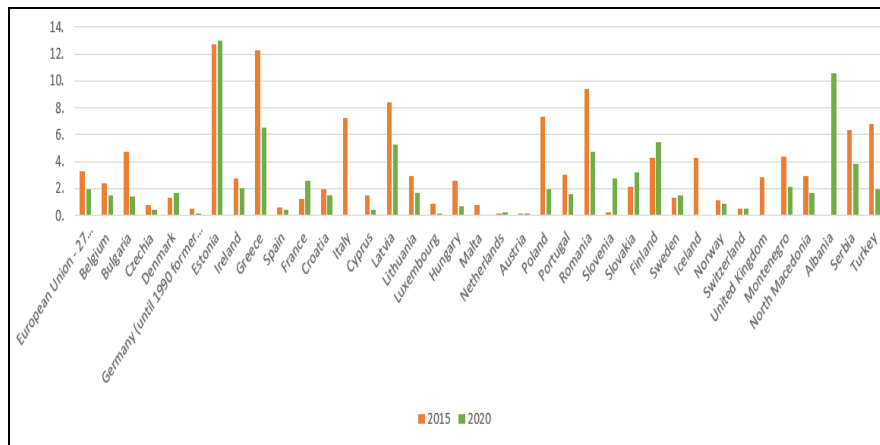


Figure 3. Unmet self-reported need for medical care, by country, 2015/2020 (% of population aged 16 and over)
Source: (Eurostat, 2022e)

Education is one of the prerequisites for the SDGs, growing the employability, productivity, innovation, and competitiveness (European Commission and Eurostat, 2022). SDG 4, ‘Quality education’, helps people surpass poverty, stops inequalities, facilitates access to health care services, and develops a sustainable live (European Commission and Eurostat, 2022). On the other hand, early leavers from education and training have a huge impact on the number of people not in employment, social exclusion, poverty, poor health, so the purpose of the 2030 Agenda is to include everyone in education and training (European Commission and Eurostat, 2022). In Romania, there is still a large percentage of early leavers of education and training and a small improvement in this direction in 2021 year compared with 2015 (see Figure 4).

SDG5, ‘Gender equality’, has as main goal the achievement of gender equality, and this can be done through the eradication of discrimination and violence against womens, but also through inclusion in leadership positions of a larger number of womens (European Commission and Eurostat, 2022).

In monitoring SDG5 were used the following subjects: gender-based violence, education, employment and leadership positions (European Commission and Eurostat, 2022).

The inclusion in employment manifests a big gap between men and womens with age between 20-64 years, even womens have a higher degree of promovability in tertiary education (European Commission and Eurostat, 2022).

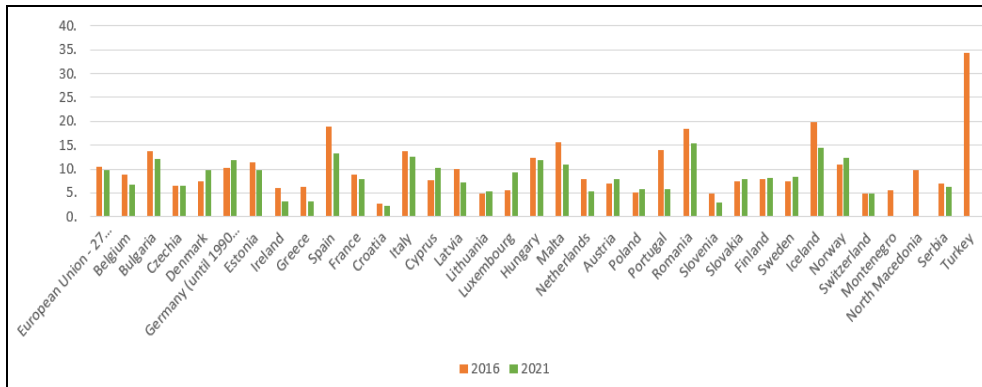


Figure 4. Early leavers of education and training, by country, 2016/2021 (% of population aged 18-24)
 Source: (Eurostat, 2022c)

Therefore, one of the main goals of Europe is to include an equal number of women and men in employment (European Commission and Eurostat, 2022). As we can see in Figure 5, in Romania the gender employment gap seems to be significant with a small reduction between 2016 and 2021.

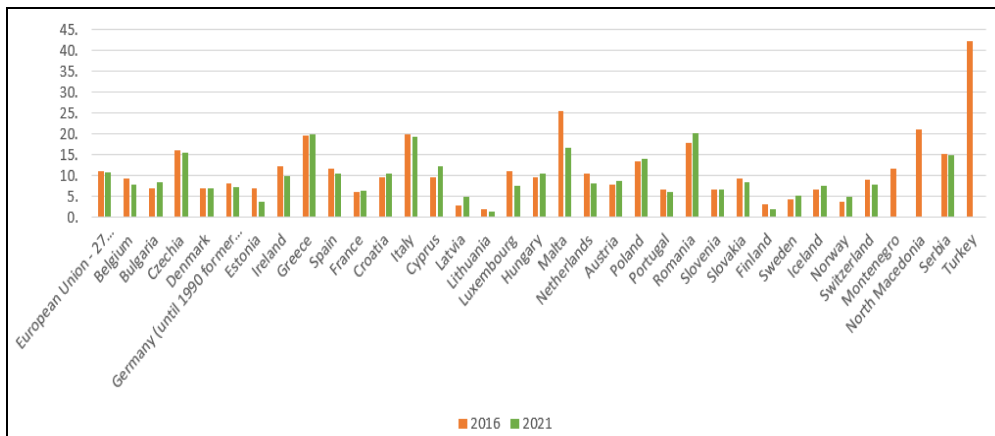


Figure 5. Gender employment gap, by countries, 2016/2021 (percentage points)
 Source: (Eurostat, 2022f)

Public and environmental health in the EU is linked with the access of the necessary amount of drinking water for each person and sanitation services (European Commission and Eurostat, 2022). Therefore, SDG6, 'Clean water and sanitation', propose to enhance water quality and water use efficiency, sustainable water abstraction and supply (European Commission and Eurostat, 2022).

In monitoring SDG6 European Commission and Eurostat, in 2022, used the following indicators: sanitation, water quality, and water use efficiency.

In recent years, the share of people connected with wastewater treatment is higher than 10 years ago, more accurately the proportion increased to 0.7% in 2020 compared with 2015 (European Commission and Eurostat, 2022). Similarly, the share of people connected to secondary waste water treatment started to increase from 2000, reaching 80.9% in 2019 (European Commission and Eurostat, 2022).

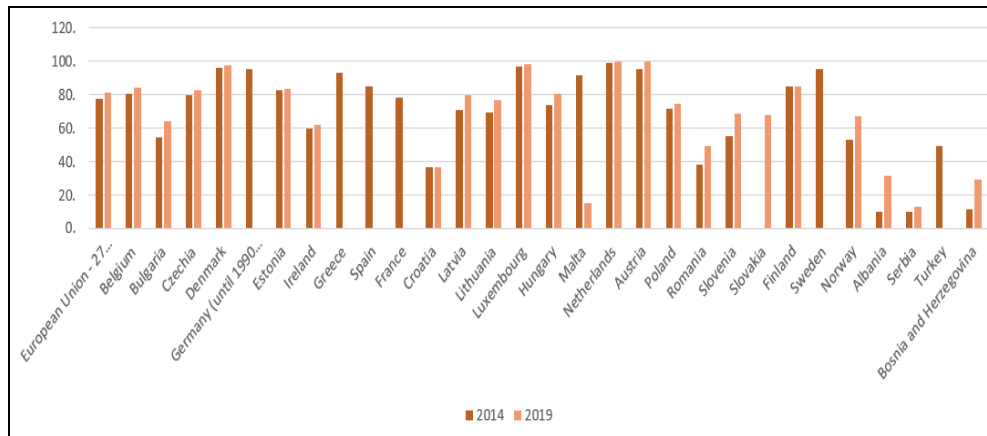


Figure 6. Share of people connected to secondary wastewater treatment, on countries, 2014/2019

Source: (Eurostat, 2022j)

In 2014, in Romania, 38.20% of the population was connected to secondary wastewater treatment, but until 2019 the share of the population increased steadily to 49.40% (see Figure 6).

The entire economy and human life are based on reliable and affordable energy services: electricity supply, heating and cooling, transport services (European Commission and Eurostat, 2022). Striking from this prerequisite, SDG7, ‘Affordable and clean energy’, propose universal access to modern energy systems, energy efficiency, and increased usage of renewable energy (European Commission and Eurostat, 2022).

In monitoring SDG7 in 2022, the European Commission and Eurostat used the following indicators: energy consumption, energy supply, and access to affordable energy.

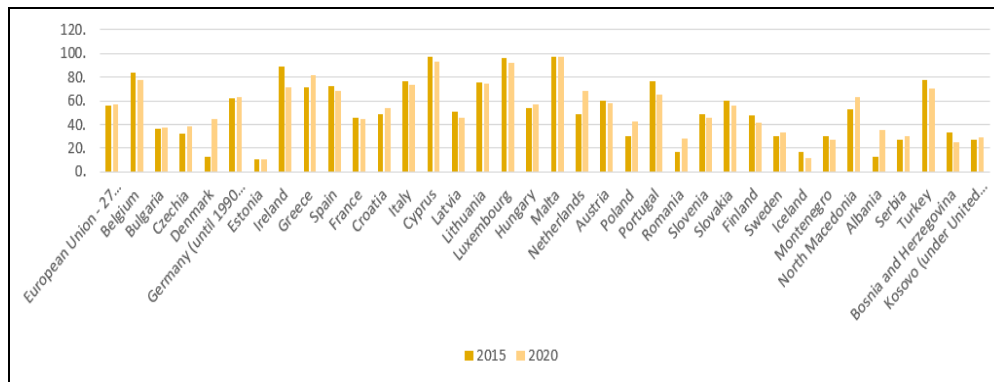


Figure 7. Dependence on energy imports, by countries, 2015/2020 (%)

Source: (Eurostat, 2022d)

The use of renewable energy in the EU has been raised in all three domains: electricity, heating and cooling, and transport energy (European Commission and Eurostat, 2022). Despite this, the import of fuel from countries outside the UE represents an important source to cover UE energy needs, with a share of the available 57.5% of gross energy (European Commission and Eurostat, 2022). In Romania, the dependence on energy imports is low, with a share of 16.687% in 2015 and 28.201% in 2020 (see Figure 7).

Decent employment has a great impact on the wellbeing and personal fulfilment of individuals, therefore SDG8, ‘Decent work and economic growth’, has as main goal sustained economic growth and economic productivity (European Commission and Eurostat, 2022). This will be considered the prerequisites for the creation of well-paid quality jobs, and for resource efficiency in consumption and production (European Commission and Eurostat, 2022).

In monitoring SDG8 the following indicators were used in 2022 by the European Commission and Eurostat: economic growth, employment, decent work.

The unemployment has a negative impact on people lives through reducing employability prospects, human capital depreciation, increasing the risk of poverty and social exclusion (European Commission and Eurostat, 2022). The economic growth registered between 2014-2019 helped young people to integrate more easily into the labour market, but once with the COVID-19 pandemic this phenomenon reversed (European Commission and Eurostat, 2022). In Romania, the proportion of young people neither in employment nor in training and education has not decreased since 2016 and this phenomenon has the negative impact on a labour market (see Figure 8).

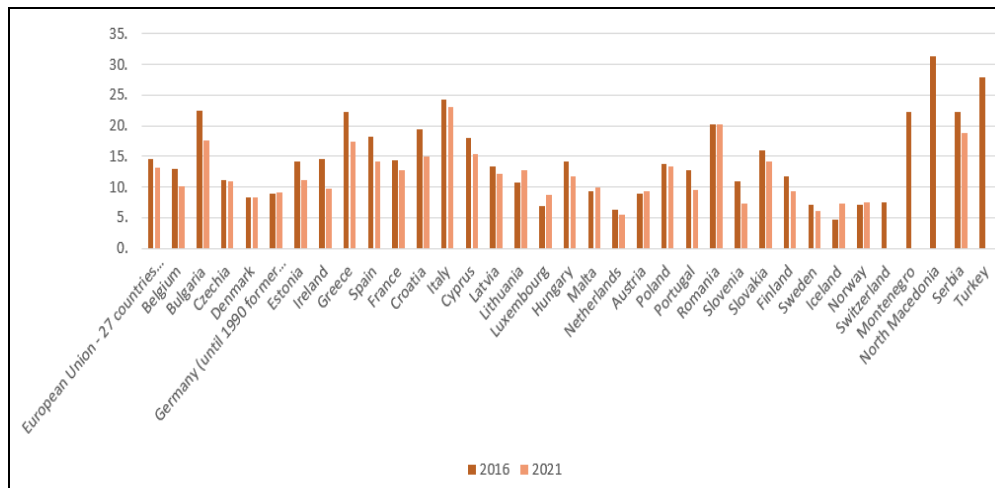


Figure 8. Young people neither in the labour market nor in training and education (NEET), by countries, 2016/2021

Source: (Eurostat, 2022p)

In the context of economic, political, and sustainable challenges, SDG9, ‘Industry, innovation and infrastructure’, has as main purpose the creation of a resilient infrastructure, to enhance sustainable industrialization and to promote innovation (European Commission and Eurostat, 2022).

The following indicators were used by the European Commission and Eurostat in 2022 in monitoring SDG9 : R&D and innovation, sustainable industry, sustainable infrastructure.

R&D personnel at UE level was 0.94% in 2005 and continued to grow until 2020, registering 1.44% in areas such as research, management, administration and technical (European Commission and Eurostat, 2022). In Romania, R&D personnel registered in 2015 0.3899% and until 2020 raised to 0.4103% (see Figure 9).

SDG10, ‘Reduced inequalities’, proposes reduced inequalities based on age, sex, disability, race, ethnicity, origin, religion, but also inequalities regarding the representation of countries and the migration process (European Commission and Eurostat, 2022).

In monitoring SDG10 in 2022, the European Commission and Eurostat used these indicators: inequalities within countries, inequalities between countries, and migration and social inclusion.

The variation in GDP coefficient per capita emphasises the reduced inequalities between EU countries, registering 44.8% in 2021 (European Commission and Eurostat, 2022). This process reversed during the COVID-19 pandemic (European Commission and Eurostat, 2022). In UE countries, purchasing power adjusted GDP per capita has big differences and Romania registered 73% (see Figure 10).

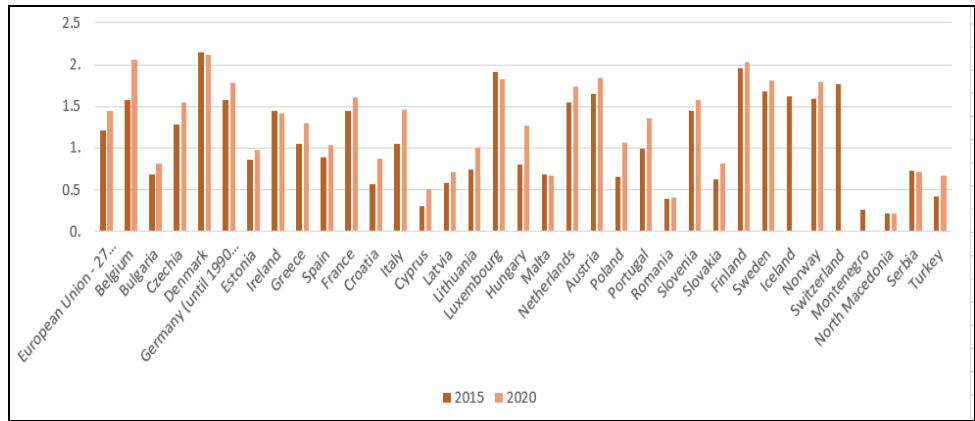


Figure 9. R&D personnel, by country, 2015/2020 (% of the population employed)
 Source: (Eurostat, 2022i)

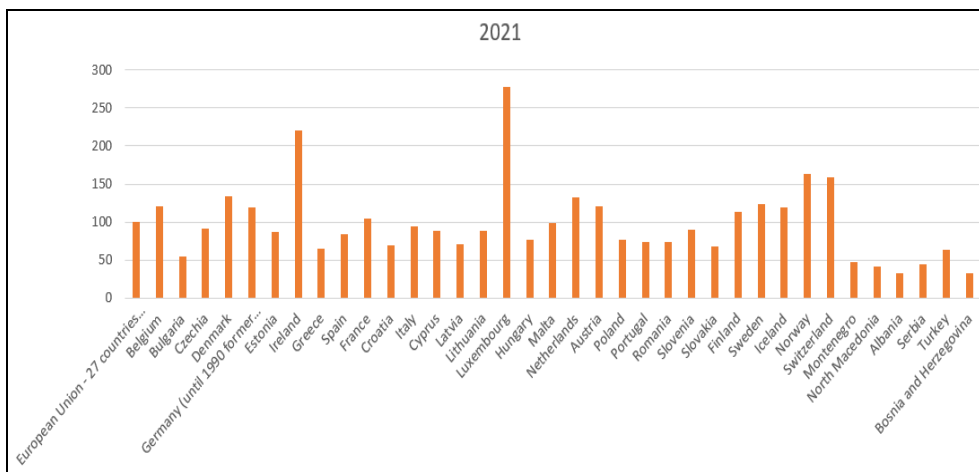


Figure 10. Purchasing power-adjusted GDP per capita, by country, 2021 (index EU=100)
 Source: (Eurostat, 2022k)

Urban areas are central points for economic and social development, innovation through the wide variety in education, employment, culture, and entertainment (European Commission and Eurostat, 2022). Therefore, SDG11, ‘Sustainable Cities and communities’, has as main goal the renewal and planning of cities in a way that offers opportunities for all, while reducing resource use and negative impact on the environment (European Commission and Eurostat, 2022).

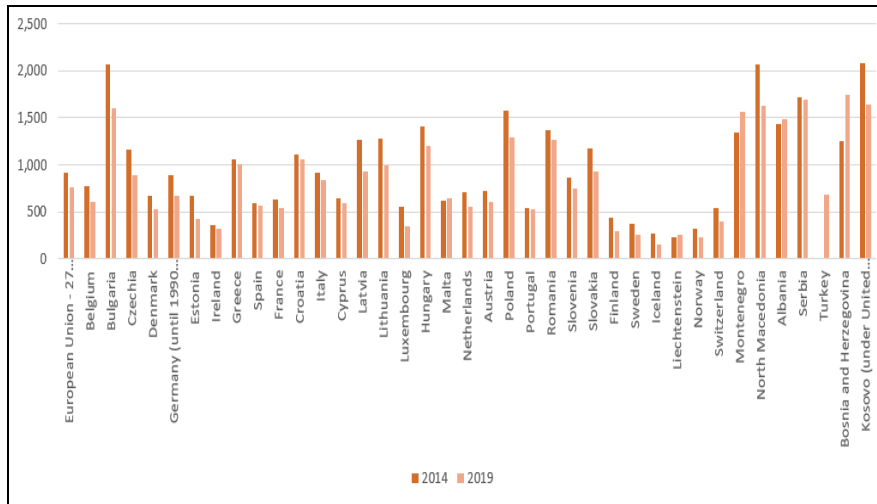


Figure 11. Years of life lost due to fine particulate matter, by countries, 2014/2019 (million years lost)
Source: (Eurostat, 2022o)

In the monitoring of SDG11, following indicators were used: quality of life in cities and communities, sustainable mobility, and environmental impacts.

Starting with 2005, years of life lost due to fine particulate matter - a consequence of atmospheric pollution - decreased, but from 2014 this phenomenon stagnate (European Commission and Eurostat, 2022). In this direction future efforts will be necessary to cover the goal set by UE in reducing atmospheric pollution by 55% until 2030 (European Commission, 2021a).

Between 2014 and 2019, in Romania lost years due to fine particulate matter decreased from 1.371 to 1.261 (see Figure 11).

Consumption and production patterns are important for the environment and people health (European Commission and Eurostat, 2022). Therefore, SDG12, ‘Responsible consumption and production’, seeks sustainable consumption and production through technological capacity, resource efficiency, and reduced global easte (European Commission and Eurostat, 2022).

The decoupling of environmental impacts from economic growth, green economy, and waste generation and management are key indicators in monitoring SDG12.

In 2019, the final UE consumers used 6.52 tonnes of raw material, registering an increase of 5.2% compared with 2014 (European Commission and Eurostat, 2022). Romania also registered an increase between 2014 and 2019 (see Figure 12). Anyway, according to the Grean Deal objectives future efforts will be needed to reduce raw material consumption.

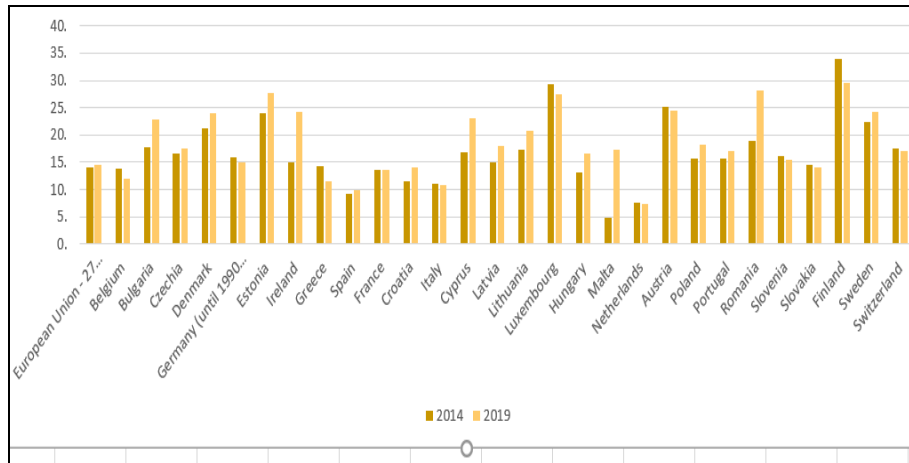


Figure 12. Raw material consumption, by country, 2014-2019 (tonnes per person)
Source: (Eurostat, 2022m)

SDG13, ‘Climate action’, seeks to cover the United Nations Framework Convention on Climate Change - reducing to zero negative impact of population on environment (European Commission and Eurostat, 2022).

Climate mitigation, climate impacts and adaptation, and financing climate action are key indicators in monitoring SDG13 by the European Commission and Eurostat, in 2022.

The evolution in reducing negative impact on climate was mixed, registering progress in decreasing net greenhouse gas emissions, but also in renewable energy (European Commission and Eurostat, 2022). In Romania, net greenhouse gas emissions per capita decrease by 0.2 tonnes per capita between 2015 and 2020, from 4.2 to 4.0 tonnes per capita, but we have to emphasize the fact that Romania is at the end of rank in what concern net greenhouse gas emissions (see Figure 13).

SDG14, ‘Life below water’, proposes reducing marine pollution, the negative impact of ocean acidification, the exclusion of overfishing, and protecting marine and coastal areas and ecosystems (European Commission and Eurostat, 2022).

Ocean health, marine conservation, and sustainable fisheries are the main indicators in measuring progress toward SDG14.

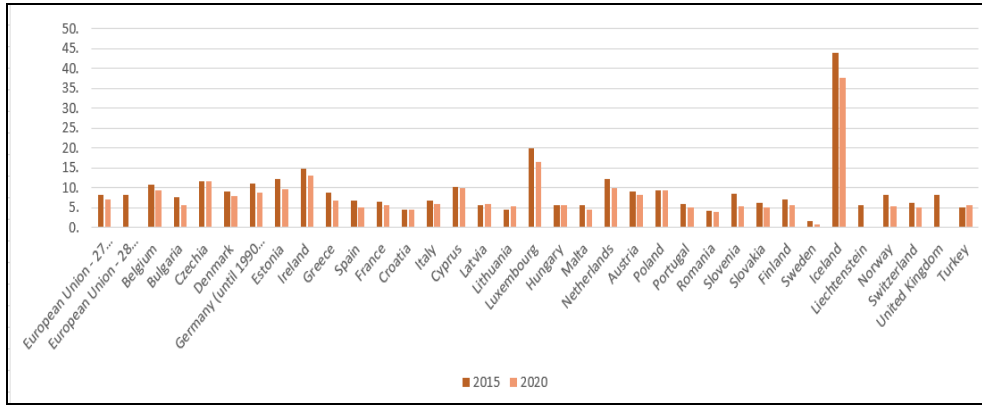


Figure 13. Net greenhouse gas emissions per capita, by country, 2015/2020 (tonnes per capita)
 Source: (Eurostat, 2022h)

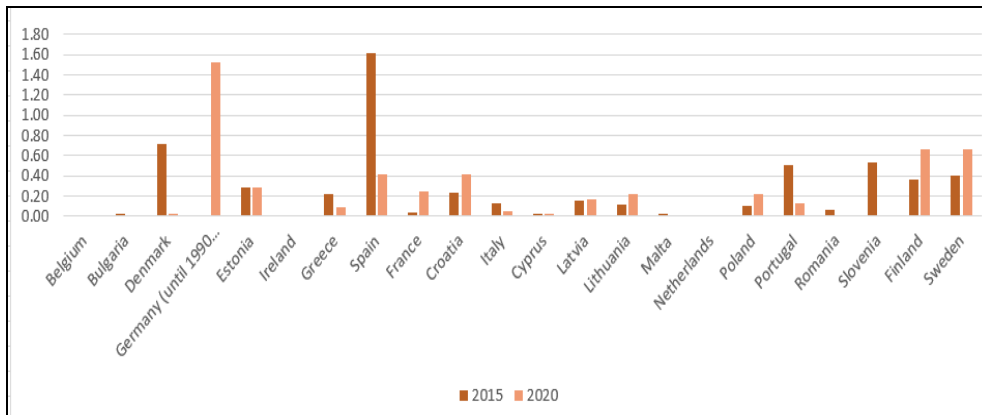


Figure 14. Marine water affected by eutrophication, by country, 2015/2020 (% exclusive economic zones)
 Source: (Eurostat, 2022g)

Despite progress in bathing water sites, marine ecosystems in the EU are continuously impacted by human activities, marine litter, and noise pollution (European Commission and Eurostat, 2022). In Romania, from 2020 no marine water was affected by eutrophication (see Figure 14).

SDG15, ‘Life on land’, has as main objectives terrestrial, inland water, and mountain ecosystem protection, conservation and sustainable use (European Commission and Eurostat, 2022). In this direction, activities like sustainably managed forests, combating desertification, protecting threatened species, and restoring degraded land and soil are crucial (European Commission and Eurostat, 2022).

In measuring progress towards SDG15 the following indicators were used by the European Commission and Eurostat in 2022: ecosystem status, land degradation, biodiversity.

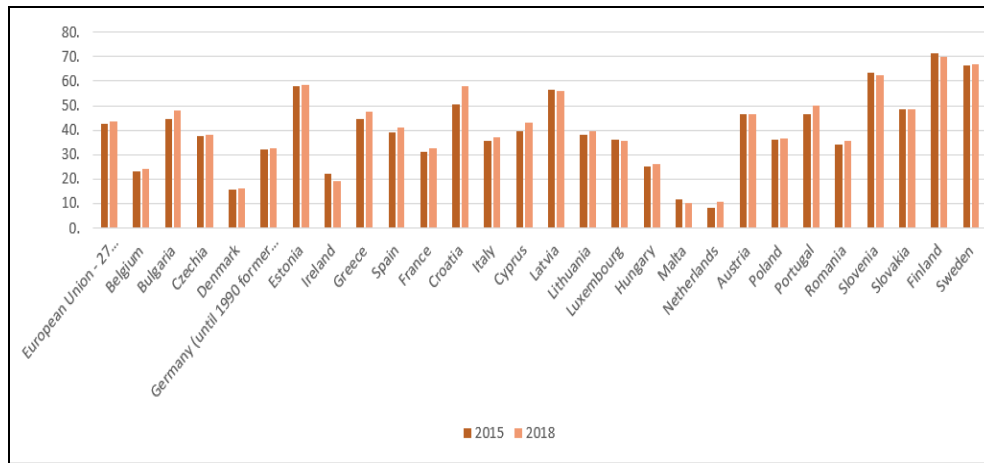


Figure 15. Share of forest area, by country, 2015/2018 (% of total land area)
Source: (Eurostat, 2022n)

The share of forest area in UE registered a positive trend between 2015 and 2018, with a 0.9% increase between this period of time (European Commission and Eurostat, 2022). In the same period, Romania emphasises an insignificant increase, in 2015 the share of forest area registered 34.1% and until 2018 raised only at 35.5% (see Figure 15).

SDG16, ‘Peace, justice and strong institutions’, promotes a peaceful and inclusive with respect of human rights, protection of the most vulnerable, the rule of law, and good governance at all levels as main prerequisites (European Commission and Eurostat, 2022).

Peace and personal security, access to justice, trust in the institution are key indicators in monitoring SDG16.

Efficient justice systems are a prerequisite in the fight against corruption, and without them, trust in democratic institutions could diminish (European Commission and Eurostat, 2022). Existing data at the UE level indicate a favourable trend in justice systems (European Commission and Eurostat, 2022). In Romania the corruption perception index in the ranking registered value 45, indicating a middle index of corruption (see Figure 16).

SDG17, ‘Partnerships for the goals’, propose a global partnership for sustainable development, emphasising the importance of macroeconomic stability, the need for financial resources for developing countries from international sources, and strengthened domestic sources for revenue collection (European Commission and Eurostat, 2022).

In monitoring SDG17, the following indexes were used: global partnership, financial governance within UE, access to technology.

For covering all the objectives existing in Agenda 2030 a global partnership is needed between governments, private sector, civil society and other stakeholders (European Commission and Eurostat, 2022). Financial sources can

help implementing Agenda 2030 in developing countries through private, public, domestic and international resources (European Commission and Eurostat, 2022). In the last years, the global partnership index registered a mixed evolution (European Commission and Eurostat, 2022).

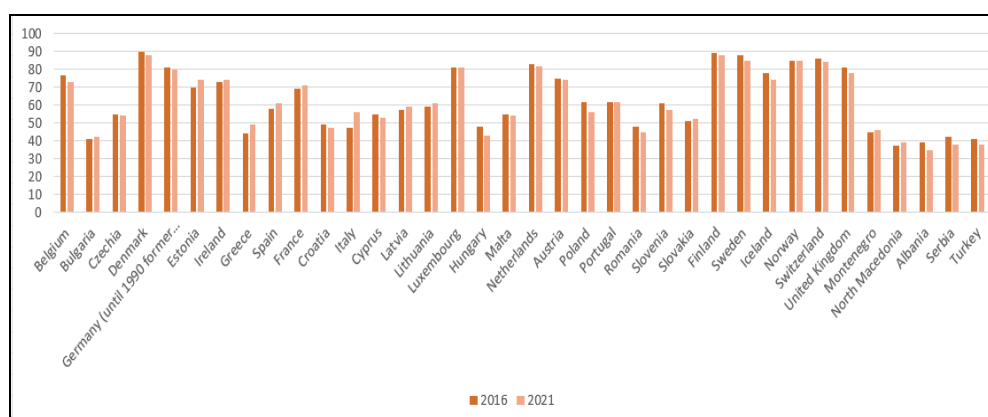


Figure 16. Corruption perception index, by country, 2016/2021
(0 = highly corrupt, 100 = very clean)
Source: (Eurostat, 2022b)

4. Conclusions

In December 2018, Romania adopted the National Strategy for Sustainable Development of Romania 2030, to set concrete measures for the implementation of Agenda 2030 (Romanian Government, 2018).

Consequently is observed a great evolution at the UE level for SDG16, SDG1, SDG8, SDG3, SDG9, and SDG7 (European Commission and Eurostat, 2022). In the second part of the rank, are SDG11, SDG10, SDG14, SDG5, SDG13, SDG12, SDG17, SDG2, SDG4 with a general favourable evolution and a favourable degree of coverage. In the last part of the rank, we can see SDG6 analysed for the first time in 2022, and SDG15 with small improvements but also a negative evolution for some indicators.

In Romania the situation has a different evolution. After analysing specific data extracted by the authors of this article from Eurostat, it is important to emphasise the fact that Romania is on top of the rank with SDG7, SDG13 and SDG14. Moderate progress is observed in SDG4, SDG5, SDG6, SDG9, SDG11, SDG12, and SDG16 at Romanian country level. At the end of the ranking the authors of this articles included SDG1, SDG2, SDG3, SDG8, SDG10 and SDG15. Hence, the results of OECD Program for International Student Assessment (PISA) from 2018, which mentioned that Romania has a lower position than the European average (OECD, 2018) can be reaffirmed today.

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