

constraints, because it provides the delivery of a certain part of raw materials at lower prices. It should be noted that their use in connection with existing state-of-the-art manufacturing technologies has no negative impact on the quality of the newly created product.

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GREEN ECONOMY TRANSITION AND REGIONAL POLICY OF EUROPEAN UNION

Introduction

The purpose of article is to show how the concept of green economy can be an empowering tool of the sustainable regional development in Europe and to describe a green economy as a new, more radical direction in creating the harmonious, balanced social and environmental development of countries. The concept of green economy is formulated as an alternative approach to the existing model of economy. There is shared awareness that broad, systemic and longtime vision is necessary. And in fact the concept of a green economy has become a center of policy debates in recent years. This article examines the new thinking started after a global financial crisis (2008).

Priorities of regional policy of EU

In the European Union was recognized that the crisis should also be taken as an opportunity to set our economy more firmly on the path to a low-carbon and resource-efficient economy. The new strategy called Europe 2020 puts forward three mutually reinforcing priorities:

– Smart growth: developing an economy based on knowledge and innovation.

– Sustainable growth: promoting a more resource efficient, greener and more competitive economy.

– Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. (Europe 2020. A strategy for smart, sustainable and inclusive growth, 2010, p.6)

The motor of this strategy is sustainable growth which will help to decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernize our transport sector and promote energy efficiency. The crisis made us aware that "business as usual" is not possible anymore.

Greening the economy means mainstreaming the environment into economic development. The term 'green economy' is not consistently defined as it is still an emerging concept. A green economy is one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. Table 1. Presents selected definition of green economy.

Table.1.

Selected definitions of green economy

Green economy	UNEP 2011	Green economy is one that has a positive influence on people's well-being and social equity, while reducing environmental risk and consumption of natural resources.
	ICC 2012	Green economy is the economy where the economic growth is connected with ecological responsibility, which strengthen each other in the process of supporting the social progress.
	European Environmental Agency 2012	Green economy is the economy where environmental, economic and social policies and innovations support societies in effective use of resources and while at the same time improving human well-being, accentuating social integration and protection of natural systems which sustain life on the Earth.
	Poverty Environment Partnership 2012	Inclusive green economy provides conditions for bringing together the social, economic and environmental objectives of sustainable development in ways that can benefit poor and vulnerable groups and reduce inequality.
	European Commission 2011	Green economy is a low-carbon and a resource-efficient economy which provides growth, creates jobs and eliminates poverty by investing in and protecting the natural capital, on which the survival of our planet depends in the long-term.

Source: Own worked based on: European Commission 2011, ICC 2012; UNEP 2011;EEA 2103

Measurement of green economy implementation in the European Union

The Green Economy Index (GEI) was calculated for individual member states of EU to show the implementation of green economy goals (Ryszawska 2013). The states are arranged from the ones with the highest index values, such as: Sweden, the Netherlands, Denmark, Austria, Germany, to the states with the lowest value, such as: Romania, Cyprus, Portugal, Bulgaria,

Table 2 .

Green Economy Index values for EU member states

EU 27	Ranking list	Standardised GEI	GEI
Sweden	1	1.00	0.66
The Netherlands	2	1.00	0.66
Denmark	3	0.96	0.65
Austria	4	0.96	0.65
Germany	5	0.88	0.62
Great Britain	6	0.81	0.60
Belgium	7	0.69	0.56
Ireland	8	0.68	0.56
France	9	0.66	0.55
Finland	10	0.66	0.55
Slovenia	11	0.53	0.52
Luxembourg	12	0.52	0.51
Latvia	13	0.52	0.51
Malta	14	0.50	0.51
Italy	15	0.48	0.50
Lithuania	16	0.43	0.48
Hungary	17	0.40	0.48
Estonia	18	0.40	0.47
The Czech Republic	19	0.37	0.47
Poland	20	0.36	0.47
Slovakia	21	0.34	0.46
Spain	22	0.34	0.46
Romania	23	0.21	0.42
Cyprus	24	0.20	0.41
Portugal	25	0.16	0.40
Bulgaria	26	0.03	0.36
Greece	27	0.00	0.36

Source: Ryszawska B., Zielona gospodarka - teoretyczne podstawy koncepcji i pomiar jej wdrażania w Unii Europejskiej, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2013.

The Green Economy Index (Tab. 2) was first calculated in 2013; it illustrates positions of individual states in the process of transition to green economy on the basis of the latest data for 27 European Union member states. The states which have become green economy leaders are the ones

allocating considerable funds to reducing emissions of greenhouse gases, new energy- and resource-efficient technologies, costly renewable energy. These states have a leading position in creating national and regional level legislation that reduces the pressure exerted by the economy and consumption on the environment.

Table 3.

Groups of states as per the GEI

Groups	States
Group 1	Sweden, the Netherlands, Denmark, Austria, Germany, Great Britain, Belgium, Ireland, France, Finland
Group 2	Slovenia, Luxembourg, Latvia, Malta, Italy, Lithuania, Hungary, Estonia, the Czech Republic, Poland, Slovakia, Spain
Group 3	Romania, Cyprus, Portugal, Bulgaria, Greece

Source: Own work

All these states have their own green economy or green growth strategies, and they see a chance for development on this way. The green economy leaders do not consider the environmental requirements in the industry, transport or power generation sector a cost, but rather a chance for an added value, competitive advantage, new jobs. These states have highly developed knowledge-, innovation- and new technology-based economies, and hence it can be said that green economy combines business activities with growing awareness and needs of the green society in these states. This is a win-win-win game for business, for the environment and for people. In conclusion, it can be stated that the high GEI value results from four major factors:

- funds allocated to greening the economy (public and private),
- taking real actions towards reducing the pressure exerted on the environment through innovations and technologies,
- political and institutional awareness and determination (regulations),
- positive attitude of the civil society (awareness, education, bottom-up actions, formed habits and needs).

The states from the second group are quite advanced in implementing solutions aimed at reducing emissions, conserving resources, protecting the natural capital. Their activities focus on increasing productivity and energy efficiency. They do not have large funds for additional environmentally friendly investments at their disposal. They see their development opportunities, such as the ones demonstrated by states that are more developed with this respect, in the green economy area. The third group is characterized by a low level of numerous analyzed indicators, recently in particular: low GDP, high unemployment rate, large social disparities. In the area of productivity and efficiency, the indications are low as well. The states

devote much less attention to investments in new innovative technologies, they spend limited funds for research and development. Simultaneously, a lot of these states have a favorable geographic location, their natural ecosystems are often preserved, their consumption and waste production is generally low.

Conclusions

The obtained results of the ranking list confirm the high position of the European Union member states, which have pursued the greening policy, invested additional funds in green sectors and developed new technologies, which enhance energy and material efficiency, for years. Three groups of states, which are at different stages of pursuing green economy objectives, were distinguished. The main factor in favour of implementing green economy in the first group is investments and innovations, the second group concentrates on improving efficiency in numerous areas. The third group's potential is the natural capital, biodiversity, lower level of energy and material consumption, as well as lower production of municipal waste.

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