REFORMING HIGHER ECONOMIC EDUCATION IN THE EU FOR ENVIRONMENTAL TRANSFORMATION

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Abstract

At the 2012 UN Conference on Sustainable Development, which became known as Rio+20, one of the main focuses was on the opportunities of the green economy as a way out of the global crisis. It is an alternative for future development and overcoming the crisis turmoil in most countries of the world. Tackling climate and environmental challenges is the defining task of the current generation. If the moment of post-crisis economic restructuring is not used to choose a model of sustainable development with an emphasis on the green economy, low-carbon production, and environmentally friendly industry, we are condemning ourselves to an unsustainable future, with high costs due to dynamic fuel prices and serious climate change. To meet these challenges requires profound, structural transformations, both in the technologies used to date and, to a very large extent, the use of new technologies relevant to the needs of the 21st century, innovation and the creation of new products and services that guarantee the possibility of sustainable development. All of this requires the mobilization of huge financial resources, on the one hand, but also places serious demands on the workforce and the labor market. New clean and green technologies, new business management models also imply a new quality of knowledge.

The aim of this paper is to analyze to what extent the current structure of the curricula in universities preparing business professionals corresponds to the new needs. The experiences of 6 universities in France and Bulgaria are analyzed. A comparative analysis of the offered Master's programmes and an assessment of their degree of relevance to the future requirements of the managerial elite is made. The conclusions show different degrees of preparedness of the universities, a certain underestimation of the importance of such training and the need for more adaptability of knowledge to the new realities.

The added value of this study is in the recommendations for change in economic education, in the context of the need and prospects for ecological transformation.

Keywords: green investments, sustainable development, environmental transformation, higher economic education, education reform

1. INTRODUCTION

At the 2012 UN Conference on Sustainable Development, which became known as Rio+20, one of the main focuses was on the opportunities of the green economy as a way out of the global crisis. It is an alternative for future development and overcoming the crisis turmoil in most countries of the world. Tackling climate and environmental challenges is the defining task of the current generation. As a result of COP21 in December 2015, the Paris Agreement was adopted, which sets long-term mitigation and adaptation targets and involves the setting of national policies by developed and developing countries. If the moment of post-crisis economic restructuring is not used to choose a model of sustainable development with an emphasis on the green economy, low-carbon production, and environmentally friendly industry, we are condemning ourselves

to an unsustainable future, with high costs due to dynamic fuel prices and serious climate change.

Ecological transition is a concept that aims to introduce a new economic and social model to address the environmental challenges of our century. This concept seeks to rethink our ways of producing, working, and living together in a territory in order to make it more environmentally friendly. By transforming the current economic system, the ecological transition provides an opportunity to reduce its environmental impact.

In this sense, the environmental transition represents a period of adaptation that allows the adoption of new energy schemes that favour renewable energies, as opposed to the current scheme based mainly on fossil fuels (oil, natural gas, coal, etc.). It also aims to reduce energy consumption by limiting waste as much as possible, improve energy efficiency and change consumer behavior in order to provide an economic and social response to the environmental challenges facing our planet.

Some EU member states have specific laws, others have a Public Charter. The task is to fix certain objectives that need to be realized in order to make the energy transition a success, strengthen the energy independence and economic competitiveness of countries, preserve public health, protect the environment, and combat global warming.

To meet these challenges requires profound, structural transformations, both in the technologies used to date and, to a very large extent, the use of new technologies relevant to the needs of the 21st century, innovation and the creation of new products and services that guarantee the possibility of sustainable development. All of this requires the mobilization of huge financial resources, on the one hand, but also places serious demands on the workforce and the labor market. New clean and green technologies, new business management models also imply a new quality of knowledge

The green economy is growing. The number of jobs as well as skills development related to the green transition are and will be increasingly important (Steffen et al., 2015). The workforce has an important role to play in helping society make progress in the transition to a low-carbon, environmentally friendly and socially just and solidarity-based economy. Skills development and training, as well as the formation of a managerial workforce capable of making and managing this transition, are therefore an integral part of the Sustainable Development Strategy and an important element for the implementation of the European Green Pact 2030(COM640, 2019). The content of the concept of 'green transition', the nature of the issues addressed and the ways and means to achieve it are all within the conceptual framework of the EU 2030 Agenda and the 17 UN Sustainable Development Goals.

COP21 was an important step in raising public awareness of climate issues. A better understanding of the complexity of our relationship and interaction with the environment requires a scientific understanding of climate phenomena and their implications for society. In order to build a shared future, we need to adapt our lifestyles, our ways of producing and consuming energy (Bansal, P. and Roth, K. (2000). All professions participate in the ecological transition. The transformation is transversal. (CGDD, 2017) The classic but outdated distinction between jobs that are at the heart of the transition (green jobs in the waste or biodiversity sector, for example) and those that need to go green (green jobs) is now a thing of the past(...). For all those who are looking for meaning in their work and want to include it in the green transition, the main issue is that of competence. This clearly also affects the management teams of companies. The need for knowledge of the processes and requirements of the current ecological transformation is ever more explicit. The task is to develop the mindset and professional skills needed to manage organizations in today's world. The boundaries between financial, social, and environmental objectives and between business and non-business actors are blurring, or even disappearing. Traditional business models focus on financial objectives, distinct and separate from environmental and social value creation. They see business as distinct and separate from civil society and governmental actors. These models are no longer relevant to the new challenges.

There can be no ecological transition without education for change (Vorreux et all, 2019). Education for sustainable development and ecological transformation aims to spread contemporary environmental, economic, and social issues on a wider scale. It empowers all to understand the complexity and interdependence of these issues in order to become citizen participants in ecological transition. Higher economic education must prepare the future managerial elite to know and manage the necessary tools for the changes that must occur in our ways of producing, consuming, and living on a planet with limited, finite resources.

Green skills are still very specific to each job. It is therefore necessary to initiate a profound change regarding secondary and higher education provided by the state, but also with regard to continuing education, which is the responsibility of companies in their sector.

The success of such a policy of education and training in sustainable development for the whole public, which responds to the challenges of the environmental transition, implies the application of a dual approach over time, in an iterative, consistent, and convergent manner:

- The conditions for assessing students' knowledge of sustainable development issues should be examined by levels and cycles;
- Higher education should integrate training in environmental transformation and sustainable development at the core of all curricula and subjects, in relation to the professional sectors;
- all courses, regardless of the type of higher education, must include sustainability issues.

The **aim of** this report is: to analyze in the short term the state of the Masters programs offered in selected universities in Bulgaria and France and their adaptability to the needs of the pressing environmental transition. In the long term, the objective is to propose guidelines for changing and improving the specializations offered in the field.

The research hypothesis states that although there are now specialized individual courses and, in some places individual Masters programs, overall universities in both countries are lagging behind in the process of transforming higher education to the needs of the environmental transition.

If we assume that society in the future will be increasingly connected, environmentally responsible and sharing, then this knowledge and skills need to be embedded on a massive scale today. This is also a commitment of secondary education, but especially of higher education.

It is therefore a question of a profound transformation of the higher education system through the adaptation of existing courses and the creation of new courses, the corresponding adaptation of graduate courses, the development of teaching methods and content common to all students, to be modulated according to their specialty, and the mobilization of the necessary human and material resources.

2. METHODOLOGY

To meet the objectives of this study, eight universities were selected and analyzed, four each from France and Bulgaria. As the Master's programs in economics and management are considered, the business faculties of these universities are selected respectively. The sample covers University of Bordeaux, University of Picardie Jules Verne, Paris Dauphine- PSL and KEDGE - from France, as well as Sofia University "St. K. Ohridski", Plovdiv University "P. Hilendarski", Higher School of Insurance and Finance (VUZF) and University of National and World Economy (UNWE) - from Bulgaria.

The selection criteria are: that the selected universities fall into different groups in the 2020 rating rankings; that universities located both in the capital cities and in other regions are represented; that both public and private universities are represented; that both classical universities and specialized higher economic schools are present; and that they vary in size and number of students (below and above 5000).

The main sources of information are two groups. First of all, these are the websites of the universities, in the section Masters and offered master programs in different fields. Next is an analysis of the curricula and their structure for those Masters programs that are up to the task of preparing professionals in the field of environmental transformation and finally interviews with the directors of these programs about the interest and prospects for the programs. Due to the author's personal involvement in three of the universities (UNWE, PU and UPJV) these interviews were conducted through direct contact, and in the other cases by completing a questionnaire sent by mail. Out of a total of 20 questionnaires sent, 17 were returned completed.

In Tab. 1 summarizes the information for the individual universities based on the criteria adopted.

Tab. 1 Characteristics of the universities included in the study

UNIVERSITY	classic	special	public	private	Capital	province	Top 5	Up to 5000
University of Bordeaux	✓		✓			✓		✓
Paris-Dauphine University-PSL		✓	✓		✓		✓	✓

University of Picardie Jules Verne(UPJV)	✓		✓			✓		
KEDGE		✓		✓	✓	✓		
Sofia University St. Kl.Ohridski (US)	✓		✓		✓		✓	
University of Plovdiv P.Hilendarski (UP)	✓		✓			✓		
University of National and World Economy (UNWE)		✓	✓		✓		✓	✓
VUZF University		✓		✓	✓			

Source: Author's systematization.

3. RESULTS

When comparing the number and content of Master's programs in the eight selected universities and business schools, the following summary results are obtained. Five of them have stand-alone Master's programs designed to offer knowledge in the field of environmental transformation. Except for the University of Bordeaux and KEDGE (where these specialized Master's programs represent 10+% of the total number of Master's programs offered), in all universities the relative share is very low. This shows that this issue is still very weakly present in the models of these universities. In three of them, the University of Amiens, the University of Plovdiv and the VUZF, there is not a single program specifically designed in this field. (see Table 2)

Table 2 Summary results of the survey

University	Total number of Master's degrees	Formative Master's Degrees in Environmental Transformation	Share of total in %	Masters programs with courses in this field	Share of total in %
Bordeaux	18	2	11,1	5	27,7
Amiens	15	-	0	1	6,6
Dauphine	63	5	8	7	11,1
KEDGE	20	2	10	4	20
US	24	1	4	3	12,5
UP	17	-	0	-	0
UNWE	78	1	1,2	4	5
VUZF	14	-	0	1	7

Source: Author's systematization

It is noteworthy that the territorial location of universities does not have a significant impact on the choice of this issue. Both the universities located in the capital cities and the universities located in other major university centers in Bulgaria and France still underestimate the importance of the issues related to the ecological transformation of the economy and the need for trained specialists in the field. The only exception is the University of Bordeaux, which ranks first in terms of the share of eco-oriented Master's programs (11.1%). A possible explanation for this increased interest can be sought in the city's long tradition in the field of sustainable development, the presence of numerous companies in the region whose business is environmentally oriented, and the strong commitment of the municipal government to the promotion of sustainable initiatives in the city. The involvement of the general public and an active information campaign contribute to increasing interest in such knowledge and make the university respond adequately to demand and expand the number and nature of the master's degrees offered, adapting to market needs. In this faculty (Economics, Management and Administration) and the two master's degrees offered, “Economie de developpement” and “Intelligence economique, innovation et territoires”, in the second year of specialization (M2), the whole range of subjects studied closely correlates with the profile of economists-managers of projects related to the impact of the environmental transition on the firm, the territory, the social and collaborative economy. In five other Master's programs there are courses that complement students' knowledge on environmental transition, the programs themselves having a more specialized profile, such as Firm Economics, International Economics.

The other one that stands out from the rest is KEDGE - a private, closely profiled entrepreneurial university from the Grandes ecoles group in France. There are three clearly profiled and specifically oriented towards environmental transformation master programs - Business Transformation for Sustainability, Sustainability Finance and Innovation, Transformation, Entrepreneurship.

Comparatively, there is a certain advantage of French universities compared to those in Bulgaria. Although they are still few, the Master's programs focusing on sustainable development are more comprehensive and inclusive. Bulgarian universities have a more narrowly focused focus, most often on corporate social responsibility or energy transformation. Two of the four Bulgarian universities under review, UNWE and SU, have similar programs focused on energy markets and business. But they offer a very one-sided view of the problem of the ecological transition.

The reason for this stronger focus on individual aspects in Bulgarian universities is probably due to a specific feature of the Master's programs, namely that they are one year long. While in France the 3+2 scheme (3 year Bachelor and 2 year Master programs) has been applied for years. This allows to a much greater extent to broaden and enrich the specialization of students.

In the interviews conducted and the results of the surveys, it is clear that all universities recognize the need to expand this aspect of training in the future. The delay, according to most program directors, is partly due to a previous underestimation of the importance of the issue. In most cases, these topics are by default related to corporate responsibility and have been seen as complementary to the main logic of the Master's programs. The other serious reason is the lack of sufficient faculty researchers in this field who can fully underwrite the full range of disciplines related to environmental transformation in its entirety. This explains the presence of only individual courses or no courses at all. Last but not least, it should be pointed out, and this is especially true for Bulgaria, that teaching there relies solely on core university teaching staff and links with business practitioners are rather episodic.

4. CONCLUSION AND RECOMMENDATIONS

The comparative analysis has shown that the situation differs significantly from one university to another. There is a clear tendency, in almost all of the units included in the study, to seek to adapt existing programs. Despite discussions and actions taken in recent years, with a few exceptions, environmental transition is taught only to a small extent, if at all. There is a certain underestimation of these issues in Bulgarian universities, where there are very few specialized master programs offered. To a lesser extent, individual disciplines are also present in the layout of the remaining Master's programs. There is also a tendency for the higher economic schools and business faculties of Bulgarian universities to offer many more and different master's programs, but without a clear focus on the problems of greening the economy. The fact that ecological transition is fundamentally a systems approach based on science, equity and social inclusion means that it needs to be reinforced in training courses.

The higher education system must therefore be comprehensively transformed by adapting existing courses and, if necessary, creating new ones, adapting courses for Masters level and continuing education courses, and developing teaching methods and content that are common to all students and tailored to their majors.

Preparing for the environmental and social transition, especially through education, is a priority issue of

strategic importance. The transformation in the logic, substance, and content of curricula is the greatest challenge facing universities. Moreover, this change must start happening immediately. To this end, a few basic recommendations can be systematized, without claiming to be exhaustive, but rather as a commitment of the author and for future research in this direction.

The recommendations are organized in three areas: creating, improving, and disseminating knowledge on sustainable development; improving education and training to implement the SDGs; and improving tools and mechanisms for citizen participation in favor of sustainable development.

1. An ambitious but necessary recommendation is that 100% of students graduating with a Bachelor's degree in economics have acquired a basic knowledge of the issues, ways and means of environmental transition. Masters programs should specialize, deepen and profile this knowledge towards management skills. Students need to acquire the skills to implement business models that link business, civil society, and governmental actors to create environmental, economic, and social value. Graduates will lead change processes in organizations and, more importantly, drive sustainable transformation at the interorganizational and ultimately societal level. Continuing education should also be mobilised to contribute to this goal through specific programs for those already engaged in the transition.

2.The integration of the ecological transition to be included not only at the level of academic disciplines and teaching, but also in research, innovation and entrepreneurship programs, as well as other projects carried out by universities in collaboration with stakeholders (companies, municipalities, associations...).

3.The Ministry of Education, in consultation with other ministries, to encourage universities to improve the provision of lifelong learning. The strong need to integrate the challenges of the environmental transition into existing professions and the need for vocational retraining is evident.

4.The integration of the environmental transition in the Master's courses for higher economic education will allow the joint acquisition of common knowledge and transversal skills for all students. In this way, they will be able to understand, experiment with and apply ecological transition during their studies and in their professional lives.

5. It is recommended that each master's programme and doctoral programs provide in-depth training tailored to the specifics of the respective field and forming basic knowledge about the ecological transformation of the economy;

6. To promote student initiatives and mobilisation within and beyond universities, with the help of stakeholders, facilitating their recognition as a component of their education;

7. Mobilize additional regional, national and European funding to accelerate the integration of learning for ecological transition, taking into account all types of public funding;

8. Promote best practices and successful programs to encourage other universities to change and adapt their programs and prepare a wide range of staff to meet the challenges of the current and especially future environmental transition.

9. The Ministry to stimulate research programs related to the ecological transition in all disciplines and, more broadly, responsible research and innovation practices within research centers (university laboratories, institutes, doctoral schools, etc.).

While this analysis, based only on a review of existing Masters programs, covers a small number of EU universities and countries, it shows clear deficits in higher economic education in the field of environmental transition. Future research intentions of the author foresee its extension to undergraduate programs as well as the inclusion of more universities.

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