

DYNAMICS ROMANIAN ECONOMY TOWARDS ALIGNMENT AT THE EUROPE 2020 TARGETS

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Abstract:

The evolution of Romania in Europe 2020 report highlights some disparities in the European Union states: disparities on demographic indicators, disparities in economic development, in attracting foreign direct investment in research and development in the employment, education. The last part of this chapter presents some methodological possibilities for assessing disparities.

Evaluation of economic disparities between countries provide important gnosiological support the development of future. By addressing current issues and presenting disparities were identified and proposed solutions to improve the economic situation both national and European level in terms of economic growth, the employment of labor, improving the education system, increasing the share of GDP research and development and reduce environmental impacts, in accordance with the Europe 2020 objectives.

Key words: gaps, sustainable, relative poverty, human capital investment.

JEL Classification: E12, I21, I24, O15

1. Introduction

Romania as a member state of the European Union can not operate without respect for strategies imposed by community. Europe 2020 a strategy for smart, sustainable and inclusive economic development of Member Union aims to provide a high level of employment, productivity and to ensure economic, social and territorial.

To achieve these objectives have established a set of five targets:

1. The employment rate of people aged 20 to 64 years: 75%;
2. Investment in research and development: 3% of EU GDP;
3. Climate change / energy: technological achievement, trinomial, 20/20/20 "; reduce emissions of greenhouse gases - 20%, share of energy from renewable sources in gross final consumption - 20%, increasing energy efficiency - 20%;
4. The early school leaving rate: less than 10%, while the share of young people aged between 30 and 34 years graduates of tertiary education: at least 40%;
5. European citizens at risk of poverty: less than 20 million.

Table no 1 National objectives for Europe 2020

Nr.crt	Target	Europe 2020 target(%)	Target Romania (final value in 2020)	The extent to which European target (%)
1.	The employment rate of people aged between 20 and 64 years	75	63.3	90.4
2.	Investment in research and development (R & D expenditure ratio to GDP)	3	2	66.6
3.	Climate change / energy:			
	- Reducing emissions of greenhouse gases	-20	20	100
	- The share of energy from renewable sources in gross final consumption	-20	24	120

		-20	19	95
4.	Reduce Rate of early school leaving - The percentage of young people aged between 30 and 34 years graduates of tertiary education:	<10 40	11.3 26.7	87 66.7
5.	Reducing relative poverty rate	20 milions	580.000	2.9

Source: Eurostat, http://ec.europa.eu/europe-2020-in-your-country/romania/index_en.htm#content_4

EU states need to direct actions in the following priority areas:

- Employment

Due to demographic changes, employment in the European Union experienced a decrease. Only two thirds of the population of working age holds a job, compared to over 70% in the US and Japan, and the employment rate among women and the elderly is low. Young people have been severely affected by the economic crisis, the unemployment rate in this age group is over 21%. There is a high risk that poor people connected or outside the scope of the labor market to lose connection or the possibility to integrate the labor market.

- Skills

About 80 million people are poorly qualified, and programs of lifelong learning are useful especially those who already have a higher level of training. By 2020 it is estimated that another 16 million jobs will require high qualifications, while the demand for unskilled labor will drop by 12 million jobs. The ability to acquire and develop new skills throughout life will also be necessary to extend the active period.

- Fighting poverty

Before the crisis, about 80 million people were affected by poverty, 19 million of whom are children. 8% of employees have earnings that place them below the poverty line, and the unemployed are very exposed to this risk category. Measures under this priority directions include the modernization and strengthening education and training policies, social protection systems, increasing the rate of labor participation, reducing structural unemployment and increasing corporate social responsibility - in this respect are very important and care services for children and other persons dependent. Implementing flexicurity principles and facilitating the acquisition of new skills for workers to adapt to new conditions and potential career path changes are essential. A special effort should be made in combating poverty and social exclusion and reducing inequalities in access to health services, to ensure an equitable distribution of the benefits of growth. Equally important is the ability of economies to support the aging of the population through an active life and benefiting from a health system appropriate to ensure social cohesion and productivity.

2. Evolution towards alignment Romania Europe 2020 targets.

2.1. Romania's policy on the employment rate

In Romania, as a member state of the European Union should increase the quality of jobs, the working environment and aim to increase competitiveness in the labor market and increase the participation rate especially for those with low incomes in accordance with the guidelines of the economic policies employment established by the 2020 strategy.

The main target of the European Union according to which Member States set their own national targets, is that in 2020 the employment rate by sex with vârste between 20-64 years to reach the target of 75%. During 2000-2013, the evolution of the employment rate in Romania, by sex and age group 20-64 years is shown in table no 2.

Table no 2 Employment rate by sex and age group 20-64 in the period 2000-2013 (%)

Employment rate by sex and age group 20-64 in the period 2000-2013 (%)				
Year	Total	Male	Female	The Difference percent
2000	69,1	75,4	63,0	12,4
2001	68,3	74,6	62,3	12,3
2002	63,3	70,1	56,8	13,3
2003	63,7	70,5	57,0	13,5
2004	63,5	69,7	57,4	12,3
2005	63,6	70,4	56,9	13,5
2006	64,8	71,2	58,5	12,7
2007	64,4	71,0	57,9	13,1
2008	64,4	71,6	57,3	14,3
2010	63,5	70,7	56,3	14,4
2011	63,3	70,8	55,9	14,9
2013	62,8	69,9	55,7	14,2

Source: own calculations made based on data from Eurostat source;

In the entire analyzed period there was a significant increase in the gender (except 2006) and in the year 2013 the employment rate gap versus Europe 2020 target is 12.2 percentage points.

The data presented in Table. 2.: we can say that the employment rate oscillates around 63-64%, with an average of about 71% for men and 56-57% for women.

Over the period analyzed (2000-2013) Romania recorded a rate of employment in the 20-64 age group only in the years 2000 and 2001, in the remaining years this rate is significantly lower than European ones. In this way, as a member state of the European Union, Romania should increase turnout by policies that encourage gender equality and equal pay, "active aging" population, increasing job quality, youth employment. Educational factor, as I said in the previous chapter has a major impact on the labor market, so it should be ensured qualification recognition systems and skills acquired and promote them. The objectives of the employment rate is calculated by reporting the share of employed in the 20-64 age group in the total population in the age group 20-64 years.

Tabel no 3. The employment rate at the national level 20-64 age group by 2020

The employment rate at the national level 20-64 age group by 2020			
Year	Population between 20-64 years (thousand)	Employed population between 20-64 years (thousand)	Employment rate%
2012	14.989	8.924	58.8
2013	14.974	9.018	60.2
2014	14.959	9.115	60.9
2015	14.944	9.205	61.6
2016	14.929	9.285	62.1
2017	14.914	9.365	62.8
2018	14.899	9.428	63.2
2019	14.888	9.489	63.7
2020	14.880	9.540	64.1

Source: own calculations based on Eurostat data and data provided by the National Commission for Statistics of Romania and the National Institute of Statistics;

The analysis is noted that national targets on employment (according to Table no 3.) Follows an upward trend, but with a value below the Europe 2020 target.

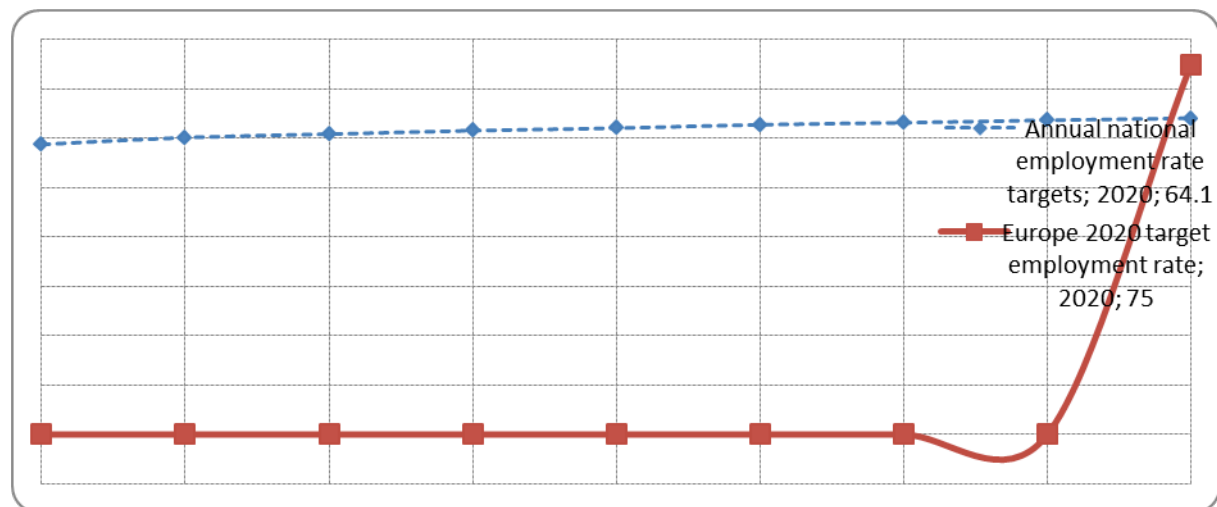


Fig. No.1.: Annual national targets and Europe 2020 target employment rate;

Source: Eurostat data processing and the National Commission of Prognosis;

The employment rate at the national level 20-64 age group is far below the target set in the Europe 2020 strategy, the EU as a whole: 64.1% versus 75%, so that Romania meets this objective only in proportion of 85.4%. It is pessimistic variant according to data from the National Commission for Prognosis and optimistic scenario indicates reaching a target of 70%.

Table no 4. Dynamics of average employment rate in Romania than in the EU27 employment rate (%)

Dynamics of average employment rate in Romania than in the EU27 employment rate (%)				
Year	EU 27	RO	RO -EU 27(%)	RO/EU 27
2000	66,6	69,1	2.5	103,7
2001	66,9	68,3	1.4	102
2002	66,7	63,3	-3.4	95,9

2003	67	63,7	-3.3	95
2004	67,4	63,5	-3.9	94,2
2005	68	63,6	-4.4	93,5
2006	69	64,8	-4.2	93,9
2007	69,9	64,4	-5.5	92,1
2008	70,3	64,4	-5.9	91,6
2009	69	63,5	-5.5	92
2010	68,6	63,3	-5.3	92,2
2013	68,6	62,8	-5.8	91,5

Source: own calculations based on Eurostat data, Eurostat 2020 Europe 2020 Indicators;

Employment rate exceeded the national employment rate in the European Union (EU 27), only in the first year of analysis (2000 and 2001), after which the trend reverses and remain negative over the years.

The difference between the employment rate at national and EU level is 5.6%, which make it difficult for Romania to reach the target employment rate in the 20-64 age category.

Table no 5. **Employment rates by age group 20-64 in the EU member states**

Employment rates by age group 20-64 in the EU member states													
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2013	Europe target 2020
Austria	71.4	71.5	71.8	72	70.8	71.7	73.2	74.4	75.1	74.7	74.9	75.2	78
Belgium	65.8	65	65.0	64.7	65.6	66.5	66.5	67.7	68	67.1	67.6	67.3	73.2
Bulgaria	55.3	54.8	55.8	58	60.1	61.9	65.1	68.4	70.7	68.8	65.4	63.9	76
Czech Republic	71	71.2	71.6	70.7	70.1	70.7	71.2	72	72.4	70.9	70.4	70.9	75
Cyprus	72.3	74.1	75.1	75.4	74.9	74.4	75.8	76.8	76.5	75.7	75.4	73.8	75
Denmark	78	78.3	77.7	77.3	77.6	78	79.4	79	79.7	77.5	75.8	75.7	80
Estonia	67.4	67.8	69.2	70	70.6	72	75.8	76.8	77	69.9	66.7	70.4	76
Finland	71.6	72.6	72.6	72.2	72.2	73	73.9	74.8	75.8	73.5	73	73.8	78
France	67.8	68.5	68.7	69.7	69.5	69.4	69.3	69.8	70.4	69.4	69.1	69.1	75
Germany	68.8	69.1	68.8	68.4	68.8	69.4	71.1	72.9	74	74.2	74.9	76.3	77
Greece	61.9	61.5	62.5	63.6	64	64.6	65.7	66	66.5	65.8	64	59.9	70
Ireland	70.4	71.1	70.7	70.6	71.5	72.6	73.4	73.8	72.3	67.1	65	64.1	69
Italy	57.4	58.5	59.4	60	61.5	61.6	62.5	62.8	63	61.7	61.1	61.2	67
Latvia	63.5	65.1	67	68.9	69.3	70.3	73.5	75.2	75.8	67.1	65	67.2	73
Lithuania	65.6	64.2	67.2	68.9	69	70.6	71.6	72.9	72	67.2	64.4	67.2	72.8
Luxembourg	67.4	67.7	68.2	67.2	67.7	69	69.1	69.6	68.8	70.4	70.7	70.1	73
Malta	57.2	57.2	57.7	57.8	57.9	57.9	57.6	58.5	59.1	58.8	60.1	61.5	62.9
Netherlands	74.3	75.4	75.8	75.2	74.9	75.1	76.3	77.8	78.9	78.8	76.8	77	80
Poland	61	59.4	57.4	57.1	57.3	58.3	60.1	62.7	65	64.9	64.6	64.8	71
Portugal	73.5	73.9	73.6	72.9	72.6	72.3	72.7	72.6	73.1	71.2	70.5	69.1	75
United Kingdom	74	74.4	74.5	74.7	75	75.2	75.2	75.2	75.2	73.9	73.6	73.6	...
Romania	69.1	68.3	63.3	63.7	63.5	63.6	64.8	64.4	64.4	63.5	63.3	62.8	70
Slovakia	63.5	63.5	63.6	64.8	63.7	64.5	66	67.2	68.8	66.4	64.6	65.1	72
Slovenia	68.5	69.4	69	68.1	70.4	71.1	71.5	72.4	73	71.9	70.3	68.4	75
Spain	60.7	62.1	62.7	64	65.2	67.2	68.7	69.5	68.3	63.7	62.5	61.6	74
Sweden	77.7	78.7	78.5	77.9	77.4	78.1	78.8	80.1	80.4	78.3	78.7	80	80
Hungary	61.2	61.3	61.4	62.4	62.1	62.2	62.6	62.6	61.9	60.5	60.4	60.7	75
EU27	66.6	66.9	66.7	67	67.4	68	69	69.9	70.3	69	68.6	68.6	75

Source: data from the source Eurostat, 2020, Headline Indicators;

Romania will have to make considerable efforts to achieve the target of 70% (optimistic scenario) the employment rate, and this effort will be correlated only with economic and social policies, training and retraining of the population, to encourage young people, to encourage self-employed financial incentives and adequate working conditions.

In Europe, Romania is included along with Bulgaria, Estonia, Hungary, Ireland, Latvia, Lithuania, Slovakia and Spain in the category of countries where it does not seem feasible target.

Table no 6. **Employment rates by age group 20-64 in the EU member states**

Employment rates by age group 20-64 in the EU member states						
Country	Europe 2020 target	Increase average annual	The average annual occupancy rate	Share of population in total	Employment rate (projection in 2020)	The difference between the national

		occupancy rate in 2000-2008	necessary to achieve the national target in the period 2013-2020	population working group (projection 2010-2020)		employment rate target (designed in 2020)
	78	1.2	0.5	2.3	75.4	-3.4
Austria	73.2	1.0	1.3	3.5	69.5	-3.7
Belgium	76	2.0	0.6	-11.5	67.8	-8.2
Bulgaria	75	0.9	0.1	-4.3	73.1	-1.9
Czech Republic	75	3.3	1.0	7.3	79	-4
Cyprus	80	0.4	0.6	0.0	78.2	-1.8
Denmark	76	1.7	0.2	-5.8	70.5	-5.5
Estonia	78	0.8	0.2	-3.4	76.9	-1.1
Finland	75	1.4	0.8	-0.6	73.1	-1.9
France	77	0.7	-0.3	-3.5	77.2	0.2
Germany	70	1.5	1.6	-1.6	68.4	-1.6
Greece	69	3.2	0.8	-0.4	65.7	-3.3
Ireland	67	1.5	1.2	1.7	63.9	-3.1
Italy	73	2.1	0.2	-6.4	67.8	-5.2
Latvia	72.8	1.1	0.4	-4.7	66.1	-6.7
Lithuania	73	1.5	1.9	13.7	70.4	-2.6
Luxembourg	62.9	1.7	-0.3	-4.7	65.4	2.5
Malta	80	1.0	0.3	-0.9	78.8	-1.2
Netherlands	71	1.2	0.6	-3.8	67.5	-3.5
Poland	75	0.6	0.8	-1.1	72.1	-2.9
Portugal	...	0.9	...	3.3	75.1	...
United Kingdom	70	0.2	0.7	-4.1	64.1	-5.9
Romania	72	2.0	1.1	-0.4	66.1	-5.9
Slovakia	75	1.4	0.9	-1.3	72.5	-2.5
Slovenia	74	3.5	2.1	0.3	67.9	-6.1
Spain	80	1.2	0.4	3.6	81.4	1.4
Sweden	75	0.3	1.9	-3.8	64.8	-10.2
Hungary	75	1.2	0.9	-0.9	71.3	-3.7

Source: calculated by the author based on data provided by Eurostat;

When establishing national strategies needed to achieve the Europe 2020 targets, to consider the demographic changes of recent years. European Union (EU 27), the population of the age group 20-64 years increased in the last decade (2000-2013 period) with about 14 million people, but according to forecasts this figure will be significantly reduced in the years 2010 -2020.

Except these population reductions for most Member States, the employment rate necessary to achieve the Europe 2020 targets is lower than that recorded in the 2000-2008 (years considered and called "pre-crisis").

According to data from table 6, in Romania and some other European countries (Belgium, Greece, Hungary, Luxembourg), the employment rate of the population in the age group 20-64 years necessary to achieve the Europe 2020 targets is higher than that recorded in the years "pre-crisis", which makes this target is considered to be very difficult.

From my point of view to reaching an employment rate of 70% by 2020 is an ambitious and remains a challenge involving efforts to Romania. The main objectives are to be considered at the involvement of young people, women, the elderly and vulnerable groups and improve quality and labor skills.

2.2. Romania and Europe 2020 in relation to R & D

According to the Europe 2020 strategy, all Member States should reach a target of 3% of GDP to research and development. The share of funding is determined as the ratio of allocation of public and private sources and the GDP.

At the European level is calculated two types of indicators: GERD- R & D expenditures indicator is achieved by a Member State, EBRD indicator -represents performed R & D spending in enterprises

To ensure access to a quality education system, the education and training class for the entire population, Romania must invest in education systems should aim to every person acquiring skills to integrate a knowledge-based economy and enabling it to respond to labor market needs.

Research expenditure ratio to GDP fluctuates over the period under review, but recorded lower values compared with the needs of education systems.

The objective of the 3% of GDP on R & D in 2020 will be difficult, given that in 2010, the share of GERD indicator in Romania in the European average was only 23, 5%, and the the EBRD only 12.6%.

Table no 7. The share of R & D expenditure in GDP in the EU Member

The share of R & D expenditure in GDP in the EU Member												
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2010	2013	Europe 2020 target
EU27	1.86	1.87	1.88	1.87	1.83	1.83	1.85	1.85	1.92	2.01	2	3
Belgium	1.97	2.07	1.94	1.87	1.86	1.83	1.86	1.89	1.97	2.03	1.99	3
Bulgaria	0.51	0.46	0.48	0.48	0.49	0.46	0.46	0.45	0.47	0.53	0.6	1.5
Czech	1.17	1.16	1.15	1.2	1.2	1.35	1.49	1.48	1.41	1.48	1.56	:
Denmark	2.24	2.39	2.51	2.58	2.48	2.46	2.48	2.58	2.85	3.06	3.06	3
Germany	2.47	2.47	2.5	2.54	2.5	2.51	2.54	2.53	2.69	2.82	2.82	3
Estonia	0.6	0.7	0.72	0.77	0.85	0.93	1.13	1.08	1.28	1.43	1.62	3
Ireland	1.11	1.09	1.09	1.16	1.22	1.24	1.24	1.28	1.45	1.74	1.79	:
Greece	:	0.58	:	0.57	0.55	0.6	0.59	0.6	:	:	:	:
Spain	0.91	0.92	0.99	1.05	1.06	1.12	1.2	1.27	1.35	1.39	1.39	3
France	2.15	2.2	2.24	2.18	2.16	2.11	2.11	2.08	2.12	2.26	2.26	3
Italy	1.04	1.08	1.12	1.1	1.09	1.09	1.13	1.17	1.21	1.26	1.26	1.53
Cyprus	0.25	0.26	0.3	0.35	0.37	0.41	0.43	0.44	0.43	0.49	0.5	0.5
Latvia	0.45	0.41	0.42	0.38	0.42	0.56	0.7	0.6	0.62	0.46	0.6	1.5
Lithuania	0.59	0.67	0.66	0.67	0.75	0.75	0.79	0.81	0.79	0.83	0.79	1.9
Luxembourg	1.65	:	:	1.65	1.63	1.56	1.66	1.58	1.57	1.66	1.63	2.3
Hungary	0.81	0.93	1	0.94	0.88	0.94	1.01	0.98	1	1.17	1.16	1.8
Malta	:	:	0.26	0.25	0.53	0.57	0.62	0.58	0.56	0.54	0.63	0.67
Netherlands	1.94	1.93	1.88	1.92	1.93	1.9	1.88	1.81	1.77	1.82	1.83	2.5
Austria	1.93	2.05	2.12	2.24	2.24	2.46	2.44	2.51	2.67	2.72	2.76	3.76
Poland	0.64	0.62	0.56	0.54	0.56	0.57	0.56	0.57	0.6	0.68	0.74	1.7
Romania	0.37	0.39	0.38	0.39	0.39	0.41	0.45	0.52	0.58	0.47	0.47	2
Portugal	0.73	0.77	0.73	0.71	0.75	0.78	0.99	1.17	1.5	1.64	1.59	2.7
Slovenia	1.38	1.49	1.47	1.27	1.39	1.44	1.56	1.45	1.65	1.86	2.11	3
Slovakia	0.65	0.63	0.57	0.57	0.51	0.51	0.49	0.46	0.47	0.48	0.63	1
Finland	3.35	3.32	3.36	3.44	3.45	3.48	3.48	3.47	3.7	3.92	3.87	4
Sweden	:	4.13	:	3.8	3.58	3.56	3.68	3.4	3.7	3.61	3.42	4
Britain	1.81	1.79	1.79	1.75	1.68	1.73	1.75	1.78	1.79	1.86	1.77	:

Source: Eurostat;

For Romania a chance to increase the share of R & D can be public-private partnership. Share this expenditure placed Romania on the last places in Europe. Romania is part, along with Lithuania, Latvia, Poland, Bulgaria, the group member for this target for 2020 requires considerable effort both quantitatively and qualitatively.

Table no 8. Projection share of GDP spent on Research and Development

Projection share of GDP spent on Research and Development				
Country	2010	Europe target 2020	Expenditure on R & D in GDP during 2000-2013	Forecast average annual rate of GDP Research Development to achieve the Europe 2020 target
	2	3	0.8	4.1
EU27	1.99	3	0.1	4.2
Belgium	0.6	1.5	1.6	9.7
Bulgaria	1.56	:	3.0	...
Czech	3.06	3	1.7	0
Denmark	2.82	3	1.3	0.6
Germany	1.62	3	10.4	6.3
Estonia	1.79	:	-0.3	...
Ireland	:	:	0.6	..
Greece	1.39	3	4.3	8.0
Spain	2.26	3	0.8	2.9
France	1.26	1.53	1.9	2.0
Italy	0.5	0.5	7.3	...
Cyprus	0.6	1.5	3.1	9.5
Latvia	0.79	1.9	3.1	9.1

Lithuania	1.63	2.3	-0.1	3.5
Luxembourg	1.16	1.8	4.7	4.5
Hungary	0.63	0.67	2.9	0.7
Malta	1.83	2.5	4.9	1.1
Netherlands	2.76	3.76	3.6	3.2
Austria	0.74	1.7	1.3	8.7
Poland	0.47	2	1.5	15.6
Romania	1.59	2.7	8.1	6.6
Portugal	2.11	3	0.7	3.6
Slovenia	0.63	1	-0.3	4.7
Slovakia	3.87	4	1.5	0.3
Finland	3.42	4	-0.8	1.6
Sweden	1.77	:	-0.3	...

Source: Eurostat and OECD;

In order to achieve the Europe 2020 target, the share of GDP spent on R & D should increase by 33 times, respectively have an average annual rate of 15.6% in 2011-2020 to 0.47% allocated to the 2013. among the Member States, Romania ranks last in the ranking by percentage of GDP expenditures on research and development and has the highest average annual expenditure required to achieve targets. The share of expenditure to GDP is higher, the more difficult for the State to achieve targets. This target could be achieved only if in Romania is placed at the forefront - inovarea research in the context of smart fiscal consolidation.

Even if Romania fails to reach the target by 2% in 2020, the share of R & D expenses will be at 66.6% compared to the target of the Europe 2020 strategy.

From our point of view this is a difficult target, given the economic conditions facing our country. Nationally better coordination is needed in order to improve overall system efficiency research and development.

Major challenges facing our country continues to be determined by the fragmentation of the system research and development, poor coordination of research policy innovation and other policies, and poor correlation between education, research and industry.

2.3. Romania and Europe 2020 in relation to education.

The main target of the Europe 2020 strategy on which Member States set national targets, is to reduce the dropout rate to less than 10%, while increasing the share of population aged 30-34 years who have completed a program of tertiary education to at least 40% by 2020.

Early school leaving rate is determined as a percentage of the population aged 18-24 years who attended secondary school at most and is not engaged in any form of education.

Table no 9. Early school leaving rate in Romania during 2000-2013

Early school leaving rate in Romania during 2000-2013			
Year	Total population (percentage of age group 18-24)	Male population (percentage of age group 18-24)	Female population (percentage of age group 18-24)
2000	22.9	23.8	22.0
2001	21.7	22.1	21.4
2002	23	23.9	22.1
2003	22.5	23.6	21.5
2004	22.4	23.7	21.1
2005	19.6	20.1	19.1
2006	17.9	17.8	18.0
2007	17.3	17.1	17.4
2008	15.9	15.9	16.0
2009	16.6	16.1	17.2
2010	18.4	18.6	18.2
2013	17.5	18.5	16.6

Source: Eurostat and OECD;

Early school leaving rate decreased by 5.4 percentage points total in the year 2013 as compared to 2010, by 5.3 percentage points of the male population and 5.4 percentage points of the female population. Although Romania has decreased by 5.4% compared to 2000, at 2013 early school leaving rate is 7.5 percentage points above the target set in the Europe 2020 strategy.

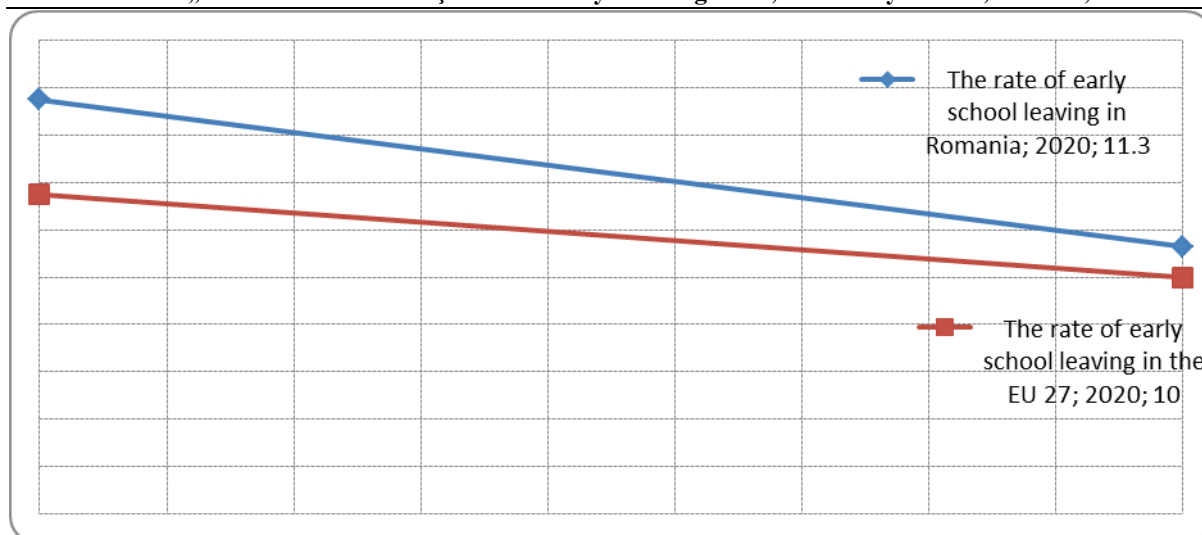


Fig. no 2. Target in Romania and EU 27 reported the Europe 2020 Strategy

Source: Eurostat;

In this case Romania should increase the openness and the importance of the education system, enabling the acquisition of key competences to ensure the development of partnerships and long-term links between the training system and the labor market. Romania has to make considerable efforts, economic, strategic and social to achieve (or at least near) the target of the Europe 2020 strategy for lowering the dropout rate to less than 10%.

Table no10. Early school leavers in the population between 18 and 24 years in EU countries (EU 27)

Early school leavers in the population between 18 and 24 years in EU countries (EU 27)													
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Europe 2020 target
Austria	10.2	10.2	9.5	9	9.5	9.1	9.8	10.7	10.1	8.7	8.3	8.3	9.5
Belgium	13.8	13.8	14.1	14.3	13.1	12.9	12.6	12.1	12	11.1	11.9	12.3	9.5
Bulgaria	...	20.5	20.7	21.9	21.4	20.4	17.3	14.9	14.8	14.7	13.9	12.8	11
Czech Republic	..		5.7	6.5	6.3	6.2	5.1	5.2	5.6	5.4	4.9	4.9	5.5
Cyprus	18.5	17.9	15.9	17.3	20.6	18.2	14.9	12.5	13.7	11.7	12.6	11.2	10
Denmark	11.7	9.2	9	10.4	8.8	8.7	9.1	12.9	12.5	11.3	11	9.6	9.9
Estonia	15.1	14.4	13.2	12.9	13.1	13.4	13.5	14.4	14	13.9	11.6	10.9	9.5
Finland	9	9.5	9.7	10.1	10	10.3	9.7	9.1	9.8	9.9	10.3	9.8	8
France	13.3	13.5	13.4	12.4	12.1	12.2	12.4	12.6	11.5	12.2	12.6	12	9.5
Germany	14.6	12.3	12.5	12.8	12.1	13.5	13.7	12.5	11.8	11.1	11.9	11.5	9.9
Greece	18.2	17.1	16.5	16	14.7	13.6	15.5	14.6	14.8	14.5	13.7	13.1	9.7
Ireland	...	...	14.6	13.1	13.1	12.5	12.1	11.6	11.3	11.6	11.4	10.6	8
Italy	25.1	25.9	24.2	23	22.3	22	20.6	19.7	19.7	19.2	18.8	18.2	15
Latvia	..	..	16.9	18	14.7	14.4	14.8	15.1	15.5	13.9	13.3	11.8	13.4
Lithuania	16.5	14.9	13.4	11.4	10.5	8.1	8.2	7.4	7.4	8.7	8.1	7.9	8.9
Luxembourg	16.8	18.1	17	12.3	12.7	13.3	14	12.5	13.4	7.7	7.1	6.2	9.9
Malta	54.2	54.4	53.2	49.9	42.1	38.9	39.9	38.3	38.1	36.8	36.9	33.5	29
Netherlands	15.4	15.1	15.3	14.3	14.1	13.5	12.6	11.7	11.4	10.9	10	9.1	7.9
Poland	...	7.4	7.2	6	5.6	5.3	5.4	5	5	5.3	5.4	5.6	4.5
Portugal	43.6	44.2	45	41.2	39.4	38.8	39.1	36.9	35.4	31.2	28.7	23.2	10
United Kingdom	18.2	17.8	17.6	...	12.1	11.6	11.3	16.6	17	15.7	14.9	15	...
Romania	22.9	21.7	23	22.5	22.4	19.6	17.9	17.3	15.9	16.6	18.4	17.5	11.3
Slovakia	...	..	6.7	5.3	6.8	6.3	6.6	6.5	6	4.9	4.7	5	6
Slovenia	...	6.4	5.1	4.6	4.3	4.9	5.6	4.1	5.1	5.3	5	4.2	5
Spain	29.1	29.7	30.7	31.6	32	30.8	30.5	31	31.9	31.2	28.4	26.5	15
Sweden	7.3	10.3	10	9.2	9.2	10.8	13	12.2	12.2	10.7	9.7	6.6	9.9
Hungary	13.9	13.1	12.2	12	12.6	12.5	12.6	11.4	11.7	11.2	10.5	11.2	10
EU27	17.6	17.2	17	16.5	16	15.8	15.5	15.1	14.9	14.4	14.1	13.5	10

Source: Eurostat;

In the European context, Spain, Malta and Portugal register with rates well above 20% in terms of this indicator. The main strategy that should be applied to Member States with a high rate of early school leavers should include policies for identification, prevention and intervention to reduce this rate.

Romania aims to reduce the drop-out rate by 2020, to 11.3%, but in our view this would have to introduce a series of policies aimed at preventing early school leaving. Currently there is little national monitoring categories at risk of early school leaving correlated with delayed intervention of the authorities.

From my point of view in Romania a strategy to reduce early school leaving rate is implementing studies "vocational" studies based on skills and vocations. This would increase the attractiveness of young people for education. According to the second component of this target, participation in tertiary or equivalent education should be extended, its value exceeds 40% of the share of population age bracket 30-34 years.

Table no 11. **Change in share of population with tertiary education in Romania and EU 27 age bracket 30-34 years in the period 2000-2013 (%)**

Change in share of population with tertiary education in Romania and EU 27 age bracket 30-34 years in the period 2000-2013 (%)					
Year	Proportion of population with tertiary education in Romania	Annual growth in Romania	Proportion of population with tertiary education in the EU 27	Annual growth in EU27	RO/EU 27
2000	8.9	-	22.4	-	39.7
2001	8.8	-0.1	22.8	0.4	38.5
2002	9.1	0.3	23.5	0.7	38.7
2003	8.9	-0.2	25.0	1.5	35.6
2004	10.3	1.4	26.9	1.9	38.2
2005	11.4	1.1	28	1.1	40.7
2006	12.4	1	28.9	0.9	42.9
2007	13.9	1.5	30	1.1	46.3
2008	16	2.1	31	1	51.6
2009	16.8	0.8	32.2	1.2	52.1
2010	18.1	1.3	33.5	1.3	54
2013	20.4	2.3	34.6	1.1	58.9

Source: calculated by the author based on Eurostat data;

At the national level during the analyzed population annual growth of tertiary education has increased at a rate comparable to the EU average by 1-2%.

In the year 2013 there was a significant increase of 11.5 percent of the population with tertiary education compared to 2000, but still retains a significant difference to the Europe 2020 targets, a difference of 19.6 percent (as presented in Fig. No 3)

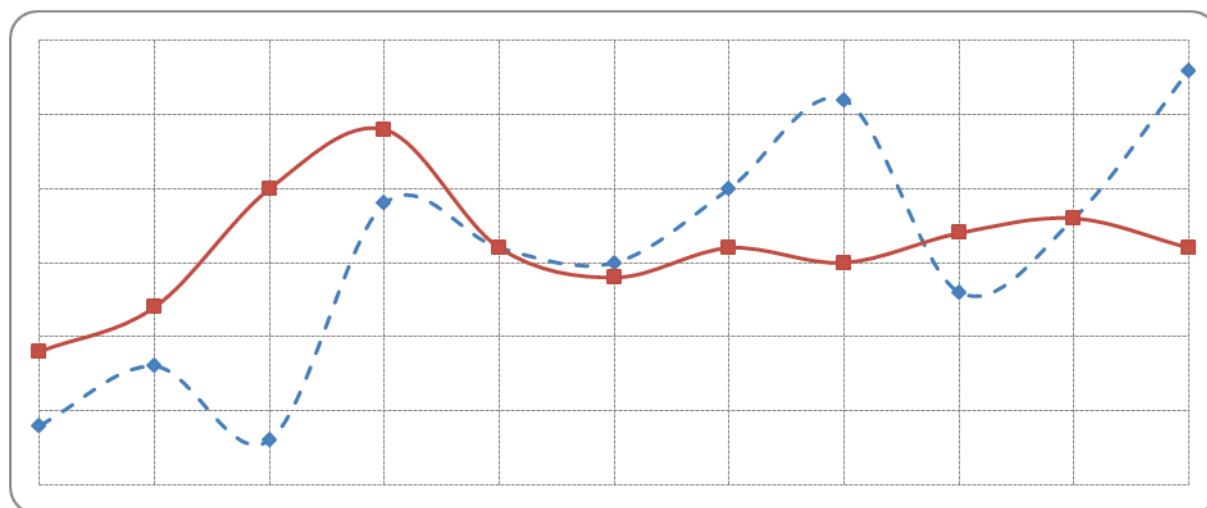


Fig. no. 3. **Dynamics of population with tertiary education in Romania and the EU 27**

Source: Eurostat;

As can be seen in Fig. no. 3. throughout the period analyzed annual growth rate of population with tertiary education than the EU average, which indicates that in Romania increased significantly the share of population with tertiary education, but the record still low compared to other EU Member States European (data in Table no 12).

Table no 12. Proportion of population with tertiary education in the age group 30-34 years the EU states

Proportion of population with tertiary education in the age group 30-34 years the EU states													
Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2013	Europe 2020 target
Austria	...	...	...	...	21	20.5	21.2	21.1	22.2	23.5	23.5	23.8	38
Belgium	35.2	35.2	35.2	37.7	39.9	39.1	41.4	41.5	42.9	42	44.4	42.6	47
Bulgaria	19.5	23.6	23.2	23.6	25.2	24.9	25.3	26	27.1	27.9	27.7	27.3	36
Czech Republic	13.7	13.3	12.6	12.6	12.7	13	13.1	13.3	15.4	17.5	20.4	23.8	32
Cyprus	31.1	32.7	36	39.9	41	40.8	46.1	46.2	47.1	44.7	45.1	45.8	46
Denmark	32.1	32.9	34.2	38.2	41.4	43.1	43	38.1	39.2	40.7	41.2	41.2	40
Estonia	30.8	29.5	28.1	27.6	27.4	30.6	32.5	33.3	34.1	35.9	40	40.3	40
Finland	40.3	41.6	41.2	41.7	43.4	43.7	46.2	47.3	45.7	45.9	45.7	46	42
France	27.4	29.5	31.5	34.9	35.7	37.5	39.7	41.4	41.2	43.2	43.5	43.4	50
Germany	25.7	25.5	24.2	25.1	26.8	26.1	25.8	26.5	27.7	29.4	29.8	30.7	42
Greece	25.4	24.9	23.4	22.8	24.9	25.3	26.7	26.2	22.5	26.5	28.4	28.9	32
Ireland	27.5	30.6	32	35.1	38.6	39.2	41.3	43.3	46.1	48.9	49.9	49.4	60
Italy	11.6	12.2	13.1	13.9	15.6	17	17.7	18.6	19.2	19	19.8	20.3	26
Latvia	18.6	16.8	17.3	18.3	18.5	18.5	19.2	25.6	27	30.1	32.3	35.7	34
Lithuania	42.6	21.2	23.4	25.2	31.1	37.9	39.4	38	39.9	40.6	43.8	45.4	40
Luxembourg	21.2	23.9	23.6	17.3	31.4	37.6	35.5	35.3	39.8	46.6	46.1	48.2	40
Malta	7.4	12.9	9.3	13.7	17.6	18.4	21.6	21.5	20.9	21	21.5	21.1	33
Netherlands	26.5	27.2	28.6	31.7	33.6	34.9	35.8	36.4	40.2	40.5	41.4	41.1	40
Poland	12.5	13.2	14.4	17.2	20.4	22.7	24.7	27	29.7	32.8	35.3	36.9	45
Portugal	11.3	11.7	13	14.9	16.5	17.7	18.4	19.8	21.6	21.1	23.5	26.1	40
United Kingdom	29	29.9	31.5	31.5	33.6	34.6	36.5	38.5	39.7	41.5	43	45.8	...
Romania	8.9	8.8	9.1	8.9	10.3	11.4	12.4	13.9	16	16.8	18.1	20.4	26.7
Slovakia	10.6	10.7	10.5	11.5	12.9	14.3	14.4	14.8	15.8	17.6	22.1	23.4	40
Slovenia	18.5	18.1	20.7	23.6	25.1	24.6	28.1	31	30.9	31.6	34.8	37.9	40
Spain	29.2	31.3	33.3	34	35.9	38.6	38.1	39.5	39.8	39.4	40.6	40.6	44
Sweden	31.8	26.6	28.3	31	33.9	37.6	39.5	41	42	43.9	45.8	47.5	40
Hungary	14.8	14.8	14.4	16.3	18.5	17.9	19	20.1	22.4	23.9	25.7	28.1	30.3
EU27	22.4	22.8	23.5	25	26.9	28	28.9	30	31	32.2	33.5	34.6	40

Source: Eurostat data acquisition, Headline, 2020 Indicators;

Nationally increase access to higher education in an accelerated pace, but remains relatively low at European level. According to international statistics, in Romania, the indicator should increase the range of 2013-2020 years by 4.2 percentage points to reach the proposed target of 26.7%.

To improve educational level, Romania should continue efforts to improve the quality of higher education by increasing the number of students attracted (attracting students from low income families in vulnerable environments) and harmonization of labor market needs.

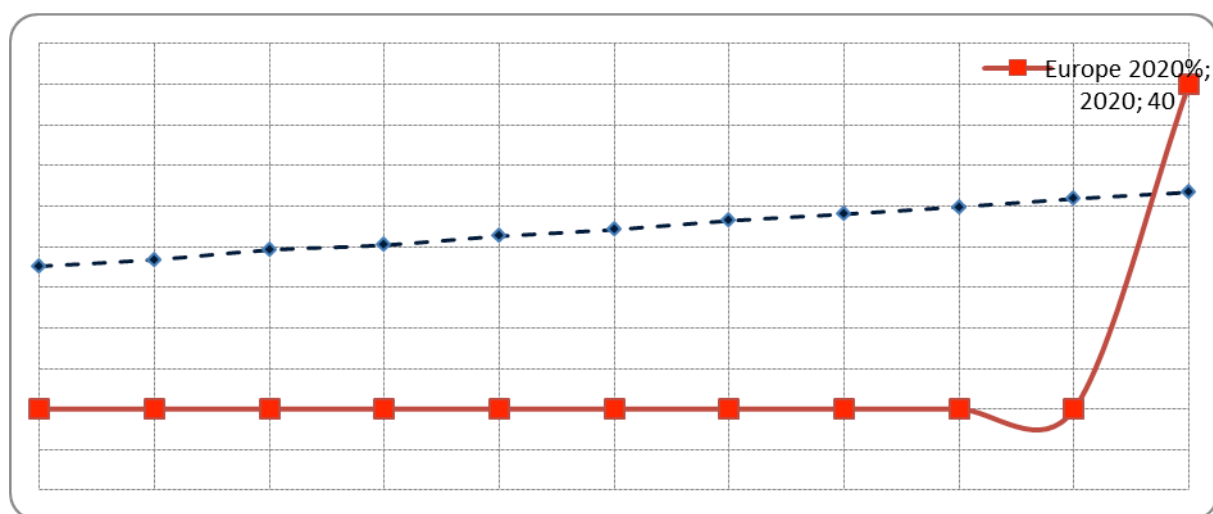


Fig. no. 4. Proportion of population with tertiary education in 2020

Source: Eurostat;

Given that Romania has managed to achieve the proposed national target of 26.7% in 2020, this will represent only 66.7% of the target of the Europe 2020 strategy.

2.4. Romania and Europe 2020 in relation to poverty reduction

Poverty is defined as follows in terms of lack of resources. Thus it is considered poor person (family or group) that has a level of welfare below a certain threshold; (such an approach still allows consideration of intangible components, knowing that as resources increase, costs are oriented in a position to satisfy the increasing requirements of higher order).

Defining poverty in relation to welfare is therefore necessary to assess the measure of poverty is economic welfare. Two main indicators are used: total consumption expenditure and total income.

At European Union level are considered two levels of poverty: Relative poverty and Extreme poverty;

Based on these two levels of poverty accepted European determining poverty rates three types: Relative poverty rate represents the percentage of people who have disposable income equivalent to less than 60% of median income available to households, absolute poverty rate represents the percentage of people whose income is below 40% of median income, severe poverty rate represents the percentage of people in households whose consumption expenditures are below the poverty line;

In statistical terms, the poverty risk for the total population of Romania decreased from 44.2% in 2008 to 41.4% in 2013, reaching 40, 3% in the year 2014. The same trend descend is recorded in the three social indicators: in the first indicator "of people at risk of poverty due to changed social situation" value decreased from 24.8% in 2007 to 22.2% in 2013, the indicator "persons deprived severe material" fell from 36.5% in 2007 to 29.4% in 2013, and that the "persons in households with low levels of employment" fell from 8.4% in 2007 to 6.7% in 2013.

Table no 13. Population Dynamics of total and relative poverty in Romania during 2000-2013

Population Dynamics of total and relative poverty in Romania during 2000-2013			
Year	total population	Relative poverty	Relative poverty rate%
2000	22.435,2	3.670	16,3
2001	22.408,3	3.690	16,4
2002	21.794,7	3.715	17
2003	21.733,5	3.760	17,3
2004	21.673,3	3.880	17,9
2005	21.623,8	3.936	18,2
2006	21.584,3	4.015	18,6
2007	21.537,5	3.984	19
2008	21.504,4	3.914	18,2
2009	21.470	3.972	18,5
2013	21.431,2	3.901	18,2

Source: own calculations based on Eurostat data, Combating poverty and social exclusion;

Romania aims to reduce the number of poor people by 2020 with 580,000 people, which would mean a contribution of 2.9 percentage points in 2020 to reduce the Lisbon Strategy target.

Table no 14. The dynamics of poverty rate in Romania during 2000-2013 (%)

The dynamics of poverty rate in Romania during 2000-2013 (%)						
An	Rata sărăciei relative	Variația relativă anuală	Rata sărăciei absolute	Variația relativă anuală	Rata sărăciei severe	Variația relativă anuală
2000	17,1	-	35,9	-	13,8	-
2001	17,0	0,1	30,6	-5,3	11,4	-2,4
2002	18,1	1,1	28,9	-2,1	10,9	-0,5
2003	17,3	-0,8	25,1	-3,8	8,6	-2,3
2004	17,9	0,6	18,8	-6,3	5,9	-2,7
2005	18,2	0,3	15,1	-3,7	4,6	-1,3
2006	18,6	0,4	13,8	-1,3	4,1	-0,5
2007	18,5	0,1	9,8	-4	2,4	-1,7
2008	18,2	-0,3	5,7	-4,1	1,0	-1,4
2009	17,5	-0,7	4,4	-1,3	0,9	-0,1
2013	17,2	-0,3	5,2	0,8	0,9	0

Source: own calculations based on data provided by the National Institute of Statistics, Survey on family budgets;

Relative poverty rate has fared descendentă, falling from 17.5 to 17.2% in the last two years of analysis. During 2000-2009 there was a tendency to reduce poverty indicators, but the economic crisis and national situation has pushed them. Romania should be involved at European level with a share as high for this purpose. From my point of view is a difficult goal to achieve, given that in the year 2013, Romania, along with Bulgaria had the largest share of the population at risk of poverty (calculated based on relative poverty rates) and exclusion social. In this regard, poverty reduction and the number of persons in poverty must involve efforts in the long term, which come from all national sectors: improving education levels and access to lifelong learning (Life Long Learning program) will help reduce poverty in the medium and long term, increasing labor market flexibility, something which will lead to increased revenue and job security, assist the highest quality health and social assistance measures;

2.5. The economic dimension of the environment in relation to Europe 2020

Any economic process evolves between two poles - production and consumption - are in interrelated, so the recognition of the active role of each of them. Production requires an input of raw materials etc. and a system of technologies that transform these inputs with a certain efficiency in consumer goods, within specific pathways strictly necessary, but also to adjacent channels. Both at national and European context of the Europe 2020 Strategy is necessary for growth and development strategy in the long term organic integrate environmental principles and result in economic progress, social, technical and ecological. This objective includes trinomial "20x20x20":

- reduce emissions of greenhouse gases are quantified by determining the amount of dynamic rate gas emissions greenhouse effect, the values being reported in 1990;

Table no 15. Greenhouse emissions developments in Romania and the EU-27 (1990 = 100)

Greenhouse emissions developments in Romania and the EU-27 (1990 = 100)											
Indicator	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2013
Total greenhouse emissions in Romania (indicator does not include LULUCF)	55	58,2	60.7	63,5	64,2	61,7	63,6	63	60	64,6	78
Total greenhouse emissions in the EU 27 (the indicator does not include LULUCF)	91	92	91	93	93	92	92	91	89	83	85

Source: data from the document substantiating GSLO-2, Romanian European Institute;

The proposed target for this goal is to reduce by 20% emissions of greenhouse gases. Although the amount is growing in Romania over the period analyzed, it is below average in the EU27.

- share of energy from renewable sources in gross final consumption

Table no 16. The share of renewable energy sources (RES) in gross consumption in Romania and the EU 27

The share of renewable energy sources (RES) in gross consumption in Romania and the EU 27						
Indicator	2006	2007	2008	2009	2013	Europe 2020 target
The share of renewable energy sources (RES) in gross consumption in Romania	17.1	18.3	20.3	22.4	23.4	24
The share of renewable energy sources (RES) in gross consumption in the EU 27	9	9.9	10.5	11.7	12.5	20

Source: Eurostat;

As shown in Table no. 16, it appears that this objective Romania comparative advantage is the average achieved at EU level. In the analyzed period the share of RES in Romania recorded values twice higher than those of the EU, which indicates that the national target will be atind towards 2020, although the estimated value will be higher than the European level "dynamic efficiency is determined as the ratio of incoming energy intensities compared"

In the period 2000-2013 the energy intensity decreased both at national and EU level 27 but energy reduction Romania was 3.3 times higher than the EU 27. In these conditions the target of 19% seems quite challenging.

3. Conclusions:

Romanian economy presents some peculiarities and problems facing the need to find solutions as economy must be integrated into the EU's productive system: structural demographic change, aging population and declining, migration of working age population, regional development disparities in national space characterized by distorted structure and underperforming sector;

The evolution of economic phenomena and processes and the complexity of demographic developments are essential for the active population of a country. Conditioning demographic, though less visible, it is extremely important by implication. Structural demographic changes observed in the total population is found both in the offer and the demand for labor. The numerical and structural change and demographic aging population influence the level and structure of the active population and its components: employment and unemployment.

From a demographic perspective Romania is characterized by significant regional differences. In Romania the R & D sector is still weak links with the economic environment, having a significant contribution to regional economic development. With the development of the knowledge economy, industrial cluster and cluster-based research will accelerate the technology transfer process. The entire research and development sector in Romania is undergoing a major restructuring and reorganization on a new basis. Europe has as its object the Lisbon Strategy is a knowledge-based economy.

In order to ensure access to good education and training for the entire population and to increase the results of training, EU countries must invest in the education systems need to increase the skills of the workforce, allowing it to meet the needs of the labor market contemporary are in a continuous process of change.

Romania must strengthen the research and innovation in renewable energy, energy efficiency and environmental protection and actively participate in European programs related. Romania has a significant potential for renewable resources, which will have to operate under the Europe 2020 strategy also coal will continue to play an important role in the national energy mix, which requires its use in conditions ensuring environmental protection through participation in efforts to develop clean coal technologies and carbon capture and storage of carbon dioxide emissions.

Acknowledgement

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References:

1. Angelini, E. C, Farina, F., and Pianta, M., 2009. Innovation and Wage Polarisation in Europe. *International Review of Applied Economics*, 23 (3), p. 309–325;
2. Badea, L. 2012. „Educația competitivă – pilon al calității vieții”, a doua conferință a Școlii Postdoctorale, *Provocările crizei și răspunsul științei economice*, contract nr. POSDRU/89/1.5/S/59184, Secțiunea I – Mutații teoretico-metodologice în știința economică, 16-17 martie 2012, ASE
3. Barro, R.J., Lee, J.-W., 2010. *A new Data Set on Educational Attainment in the World: 1950-2010*, NBER Working Paper No15902;
4. Becker, G.S., 2007, Health as human capital: Synthesis and extensions, *Oxford Econ Papers* 59, p.379-410;
5. Suciuta Marta Christina si altii, 2011, *Universities' role in knowledge-based economy and society. Implications for Romanian economics higher education*, Amfiteatrul economic, ASE, București;
6. Tsai, C-L, Hung, M-C, Harriott, K. 2010. „Human Capital Composition and Economic Growth”, *Social Indicators Research*, Vol. 99, Issue 1, pp. 41-59;
7. Layte, R., Maître, B., Whelan, Ch. T. (2010) *Second European Quality of Life Survey: Living conditions, social exclusion and mental well-being*, Luxembourg, Office for Official Publications of the European Commission, [Electronic version]. Disponibil online la <http://www.eurofound.europa.eu/pubdocs/2009/88/en/2/EF0988EN.pdf>;
8. Trifu A. (2006), *Globalizare și dezvoltare*, Editura Performatica, Iași;
9. Wilkinson R., Pickett K (2010), *The spirit level. Why Equality is better for everyone*, London, Penguin Books;
10. *** *Europe in figures – Eurostat yearbook 2008, 2010, 2011, 2013 Statistical books*, Luxembourg, Eurostat, Office for Official Publications of the European Communities;
11. *** *The Social Situation in the European Union 2011. New Insights into Social Inclusion*. Luxembourg, European Commission, Office for Official Publications of the European Communities;
12. *** *United Nations Development Programme, Human Development Report 2012*, http://hdr.undp.org/en/media/HDR_2012_EN_Complete_reprint.pdf, p.143
13. www.gea.org.ro, Grupul de Economie Aplicată;

