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Industry in Romania: state of the play. SWOT analysis

Project “Strengthening the industrial trade unions’ role in South East Europe in shaping the industrial policy agenda in the light of the objectives of Europe 2020”, VS/2015/0238



Revised Version

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Background

The present analysis is carried out in the framework of the project “Strengthening the industrial trade unions’ role in South East Europe in shaping the industrial policy agenda in the light of the objectives of Europe 2020” (VS/2015/0238). The report follows a methodological approach, discussed and approved by the project coordinator. The information gathered is based on desk research of national and European policy and research documents (the sources are presented in the references list¹) and interviews and group discussions² (list of respondents is included in the Annexe)³ carried out in 2016 with representatives from the industrial trade union federations in Romania. This version of the report is revised on the basis of the comments formulated by the participants of the Workshop in Bucharest, held on the 19 – 20 of January 2017⁴. This SWOT analysis for Romania will serve as a basis for the industrial policy recommendations and the trade union action plans, envisaged in the project.

The structure of the report is the following: after a short presentation of the economic and political context in the country the industrial development is analysed. The third section focuses on human resources, working conditions and social dialogue. The fourth section discusses industrial policy and main tools mobilised. On the basis of the analysis is compiled a SWOT analysis⁵ in the fifth section.

1. Introduction: economic and political developments setting the context

Romania entered the European Union (EU) on 1st of January 2007, together with Bulgaria, but it is still among the poorest members of the union. However, the EU membership has ensured the access to a large market and has sent a positive signal to foreign investors. In this perspective EU membership is considered as an opportunity for the country’s industry.

The economy of the Romania, as all the economies in South-Eastern Europe, experienced significant changes during the post 1989 period. The decade of the 1990s was characterised by the political instability (changes of governments and orientation), economic and social difficulties (deindustrialization, high unemployment, poverty). After the initial transformation recession, the country experienced a periods of continuous robust growth (especially between the end of the 1990s and the beginning of the financial and economic crisis that started in 2008-2009, reaching more than 8% GDP growth for some years – e.g. 2006 (fig. 1 and

¹ The existing documents are analysed critically and trade union perspectives are underlined. The results of some of the cited indexes should be examined with a caution; however they could provide useful indications, e.g. in terms of innovation, etc.

² I would like to thank all the respondents for the time dedicated and their valuable feedback. Special thanks to Gabriel Stanescu, SN Petrom Energie and his trade union for their precious help for the organization of interviews and group discussion in Romania.

³ The interviews were carried out, according to a common guideline, sent in advance to respondents.

⁴ I would like to thank Corrina Zierold, Anne-Marie Mureau and all the Bulgarian participants for their helpful comments and suggestions.

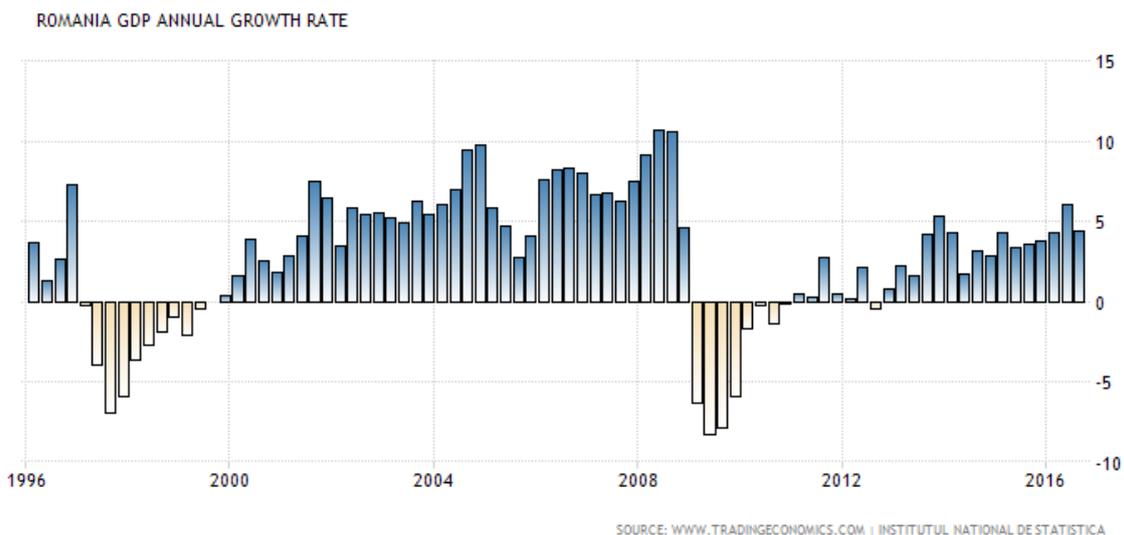
⁵ SWOT analysis is an analytical method which is used to identify and categorise significant internal (Strengths and Weaknesses) and external (Opportunities and Threats) factors faced either in a particular arena, such as an organisation, or a territory, such as a region, nation, or city.

evolution of the main economic indicators in Annexe). After the considerable crisis recession, Romania returned to growth since 2012 performing well compared the EU countries (3.8% growth in 2015).

The transition years in Romania have been characterized politically with stable periods and with number of instability moments. Since the entry in the EU, several governments were in power. In 2015 social democrat prime-minister Victor Ponta resigns, the country is governed by expert government. Since the beginning of 2017 social-democrats are back to power, but in February enormous manifestations protest against government attempts to soften anti-corruption legislation.

The macroeconomic stability (see data in table 1 in Annexe) and the relatively predictable fiscal policy with low tax levels⁶ during the last 15 years are among the strengths for the development of the Romanian industry.

Figure 1 Romania GDP Annual growth rate



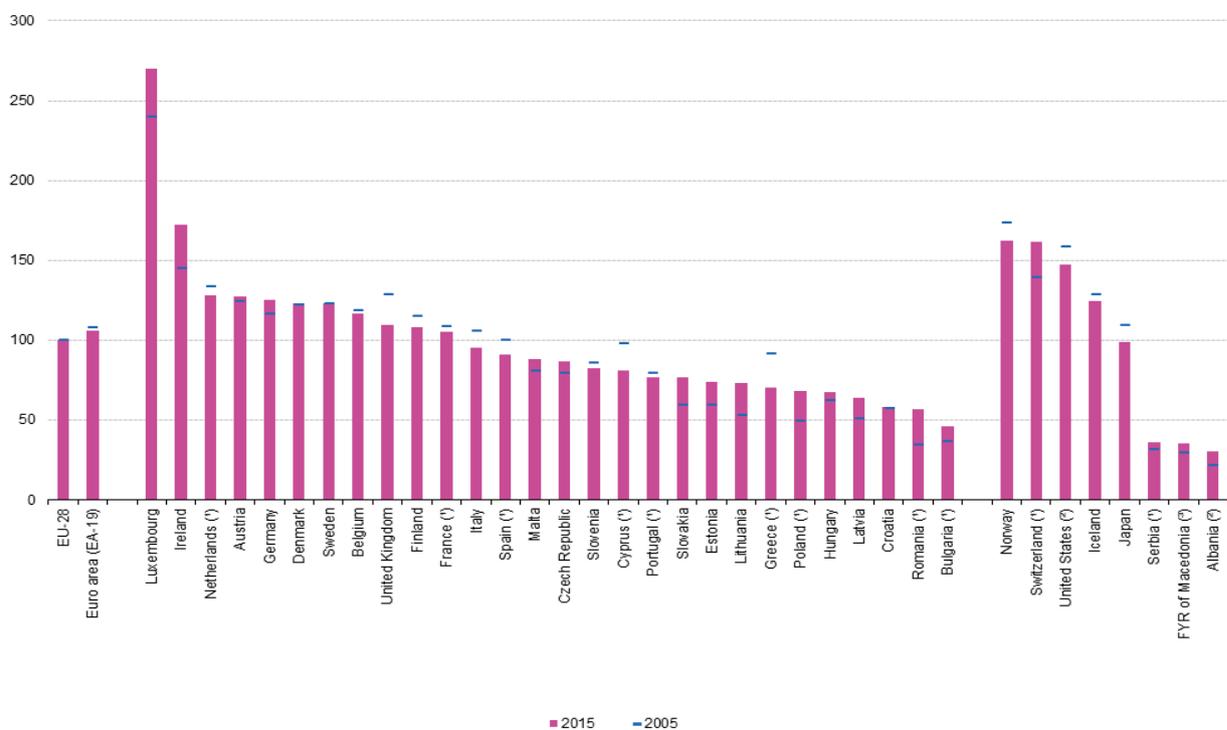
Source: <http://www.tradingeconomics.com/romania/gdp-growth-annual>

In general, the economic policy of the country since the end of the 1990s was impacted by neo-liberal oriented agenda. Austerity measures have been applied since the beginning of the 2008-2009 crisis. In this context the government intervention in areas relevant for the industrial development such as R&D, vocational education and training, etc. was limited and the social dialogue has been under attack (see more in section 4).

⁶ While in the 1990s corporate and taxes were relatively high, many countries in the region introduced flat taxation, including Romania with 16% flat tax rate (introduced in 2005).

Despite that Romania had shown substantial convergence between in the period 2000-2007, just prior to its EU accession, coinciding with the period of pre-crisis economic boom⁷, the country has still has the second lowest GDP/capita in the EU (see fig. 2). During the 1990s, actually a ‘de-convergence’ had taken place and although convergence towards EU average continued from 2007, its pace had lost its momentum. However, according to the last available data (see fig. 2), Romania GDP growth per capita for the decade 2006 – 2015 was significant and comparable to the performance of Poland and Slovakia.

Figure 2 GDP per capita at current market prices, 2005 and 2015 (EU-28 = 100; based on PPS per inhabitant)



(*) 2015: provisional.
 (*) 2014 instead of 2015.
 (*) 2013 instead of 2015.

Source: Eurostat, 2016⁸

Part of the explanations for the controversial economic performance of Romania are related to the overall institutional environment weaknesses, the perception for widely spread corruption practices (for example the country ranks 46 from 168 countries, according to the 2015 Corruption Perceptions Index⁹ (even if serious anti-corruption combat was carried on during

⁷ See Drahokoupil and Galgoczi, 2014.

⁸ [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:GDP_per_capita_at_current_market_prices,_2005_and_2015_\(EU-28_%3D_100;_based_on_PPS_per_inhabitant\)_YB16.png#file](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:GDP_per_capita_at_current_market_prices,_2005_and_2015_(EU-28_%3D_100;_based_on_PPS_per_inhabitant)_YB16.png#file)

⁹ <http://www.transparency.org/cpi2015#results-table>

the last years), the persisting informal economy¹⁰, estimated to almost one third of the GDP (30,2%), and so on. These phenomena are weaknesses for the industrial development.

2. Industry in Romania: trends of development

The Romanian industry was established mainly in the period 1945 – 1989, even if some branches such as the oil sector have much longer history. During the socialist years, the country focused on the development of heavy industries (metal, steel, chemical industry and so on), developing in parallel the light industry (food, clothing and so on). Romania has developed its industrial sector in line with the COMECON.

Box 1- Deindustrialization

In the course of the transition to a market economy, Romania underwent a dramatic process of deindustrialization. Number of major industries in Romania disappeared or drastically shrunk: including high-tech sectors like nuclear industry, computers, electronics, electrical engineering, optics, chemical, pharmaceutical, military industry. The decline was also observable in consumer goods sectors such as textile or yet the food industry (from net exporter of food products, Romania turned to a net importer of raw and processed food). Employment halved in industry and tripled in services (trade, hospitality tourism, maintenance and repair services for the general population, etc.). The outcome was twofold: on one hand, productivity dropped countrywide below the level of the 1980s; on the other the workforce skills degraded, with the number of unskilled and low-skilled workers exceeding that of medium or highly skilled ones. Monoindustrial regions were the most affected, facing high levels of unemployment and migration, mainly as a result of the collapse or the privatization of major industrial facilities. Investments declined, exports decreased sharply, unemployment rose to unprecedented levels and all these factors impacted the industrial sector, which is considered the basic source of economic competitiveness.

Source: Analysis provided by S.N. PETROM ENERGIE ROMANIA and U.F.S. ATLAS ROMANIA Petrom for the purposes of the project

The bulk of the privatisation in Romania, as in Bulgaria, started later than in Central Europe and the process was characterised as long and painful. The changes of political preferences lead to the prevalence of various privatization mechanisms (first prioritising local investors through mass privatization and management and employees' buy-outs - MEBOs, then since the end of the 1990s - foreign direct investment, see more in box 2). As in Bulgaria, the variety of privatization methods lead to the involvement of multiple actors (such as foreign

¹⁰ <http://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/undeclared-work;http://eprints.whiterose.ac.uk/89108/7/Williams%20-%20Out%20of%20the%20shadows.pdf>

investors, local investors, mass privatisation funds, MEBOs) in the post-privatisation restructuring¹¹. The post-privatisation restructuring has been more or less completed since several years for most of the economic activities examined in this report. However some further restructuring is envisaged in energy production among others, according to interviews, carried out. The fact that privatisation and post-privatisation restructuring are completed is one of the strength of the Romanian industry, according to interviewed trade union representatives.

Structural changes and industrial production

The structure of the industry in Romania experienced significant structural changes all along the post 1989 period. In the early 1990s many industrial regions were already severely affected by the large waves of restructuring. Closures of heavy industries were disastrous, especially for mono-industrial regions dominated by one large enterprise. During the last 26 - 27 years all economic sectors have been subject to drastic changes.

Box 2 Chronology of the restructuring process

1990-1992 – collapse of production and partial disintegration of the structures of the planned economy; first elements of transformation (foreign trade and price liberalisation, dissolution of agricultural cooperatives), upset by a severe fall of GDP (1992 = 71 per cent of 1989), inflation (210 per cent in 1992) and unemployment (8.4 per cent in 1992);

1993-1996 – partial recovery in the framework of a mix of cautious, gradual reforms with some revival of centralised economic structures; limited foreign investments; privatisation that favoured domestic investors (mass or voucher privatisation, MEBO, etc.), and avoidance of major restructuring; subsidies to various enterprises through credits from state-owned banks;

1997-1999 – a second big recession, due to the political decisions to further liberalise the economy, restructure large parts of it, and close down deficit-creating companies; a severe fall of output (industrial output declined by more than 20 per cent), which, combined with unfavourable influences of the Asian and Russian financial crisis of 1997-1998, aggravated this recession; privatisation of several large enterprises with strategic FDIs.

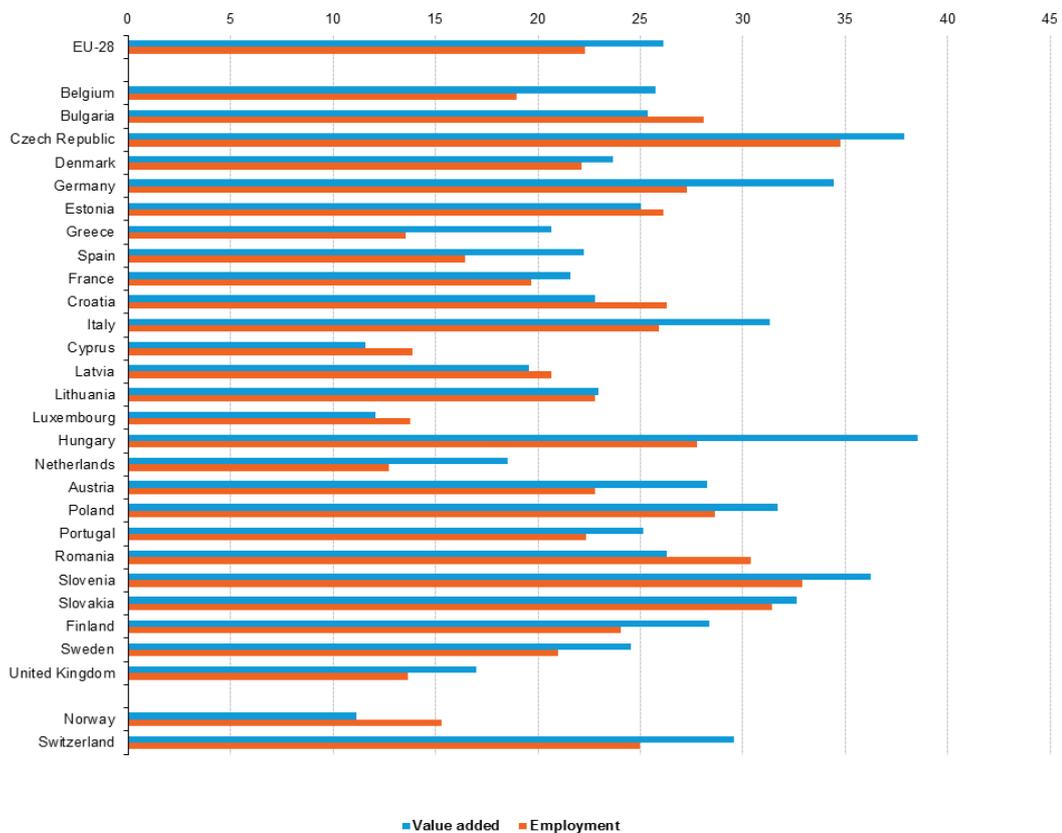
Source: Daianu and Mugrescu¹²

¹¹ Each method having its advantages and disadvantages, see the World Bank, 2006.

¹² Daniel Daianu and Bogdan Murgescu, "Which Way Goes Romanian Capitalism?" --Making a Case for Reforms, Inclusive Institutions and a Better Functioning European Union. <http://library.fes.de/pdf-files/id-moe/10068.pdf>

The recent Eurostat data (see table 4 in Annexe) suggests that industry in Romania has a relatively stable role in the gross value added (GVA) for the period 2006 – 2015 (respectively 28,2% and 26,4%) which is larger than the EU 28 average (20,1% and 19,2%) and comparable to some well performing Central European economies - e.g. Czech Republic (31,0% and 32,1%). The fig. 3 (below) points out also that Romania is among the top EU countries terms of the industry contribution to value added and employment within EU.

Figure 3 Relative importance of manufacturing (NACE Section C), 2013 ⁽¹⁾ (% share of value added and employment in the non-financial business economy total)



(*) Data for Ireland and Malta not available.

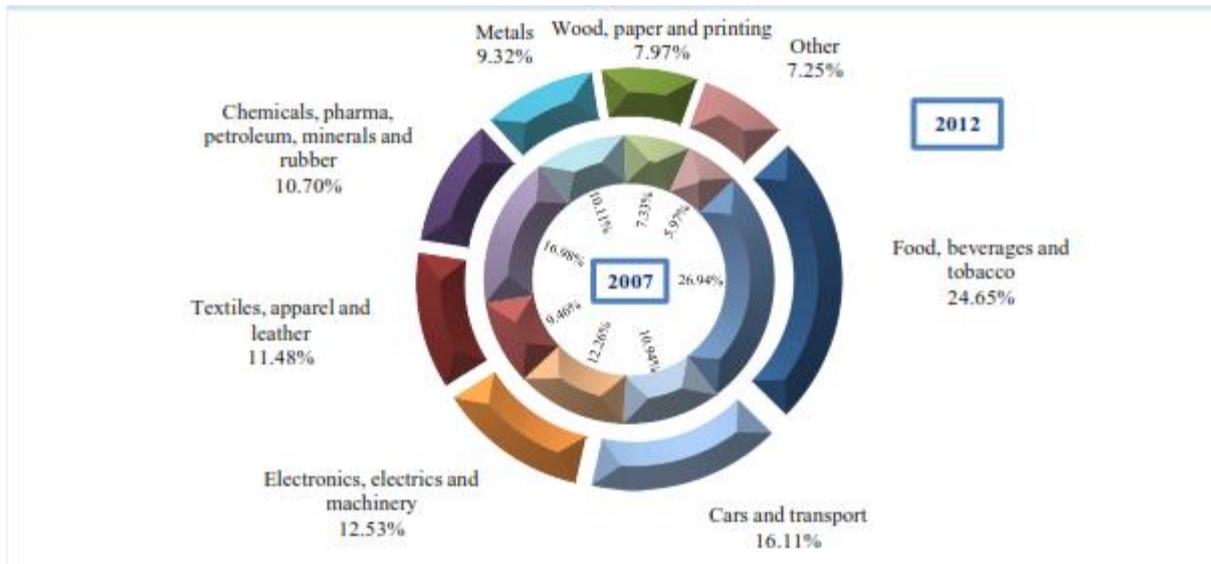
Source: Eurostat (online data code: sbs_na_ind_r2)

Source: Eurostat, 2016¹³

The largest branches of the industry in terms of their contribution to the Gross Value Added (GVA) in 2012 (see fig. 4) are food, beverages and tobacco; car and transport; textile, apparel and clothing, etc. (additional data for the industrial branches is available in Annexe 3).

¹³ [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Figure_2_Relative_importance_of_manufacturing_\(NACE_Section_C\),_2013_\(%C2%9\)_\(%25_share_of_value_added_and_employment_in_the_non-financial_business_economy_total\).png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Figure_2_Relative_importance_of_manufacturing_(NACE_Section_C),_2013_(%C2%9)_(%25_share_of_value_added_and_employment_in_the_non-financial_business_economy_total).png)

Figure 4 Manufacturing sectors (GVA at basic prices) - Romania



Source: Eurostat¹⁴

In Romania the industrial employment fell significantly in the post-communist period. The overall, industry experienced a trend of relative decline in employment, with 11% of jobs lost from 2000 to 2010. Around 230,000 jobs were lost in industry, with the most severe shrinking in the extractive industry (-48%) and in manufacturing (-11.8%). Data comparing 2010 and 2008 shows that the greatest decline was reported in the water and electricity supply industry (-38%), followed by the manufacturing industry (-13%) and the extractive industry (-10%).

Within the industry, the situation has been really dynamic in terms of changes. Romania, together with Bulgaria, has experienced the largest changes in the structure of the industry during transition (compared to the other ex-socialist economies), but differences with the average structure of the EU remain high. Poor performance by industries means that the share of the lower segments of the production chain is much higher. In addition, the Romanian share of labour and resource intensive products in the exports are significantly higher, while its exports share of technology and skills intensive products are lower than the EU average. Nevertheless, Romania, together with Bulgaria, are the two countries managed to increase at greater labour productivity in recent years. There is significant increase in the medium-sized technology production and increase in the high technology level industry (table 9). This suggests that the process of structural change in the manufacturing industry towards increasing the participation of sectors with higher efficiency can be achieved only if the increase in the comparative advantages of these subsectors - using development model that allows growth export competitiveness in these sectors.

¹⁴ In <http://ec.europa.eu/DocsRoom/documents/6752/attachments/1/translations>

According to the interviews and the analysis of Romanian trade unions¹⁵, after the crisis (from the end of 2012 on), Romania resumed economic growth, partly due to the expansion of industrial output and partly due to the rise in the domestic demand following the relief measures implemented by the governments since 2012. The analysis of individual industry sectors shows that not all of them had the same response to the affecting factors triggered by the crisis (contraction in demand, shrinking exports, dropping foreign investments, etc.). Three major groups of industrial sectors can be identified based on their response to recession:

- industrial activities experiencing general problems that cannot be exclusively assigned to recession - light industry, clothing, crude oil and natural gas extraction;
- industrial activities affected by the crisis – metallurgy, automotive;
- industrial activities not affected by the crisis – food, beverage and tobacco.

The difficulties that the sectors from the first group experienced in 2008 and early 2009 were related only partially to the crisis. Even before the crisis, these sectors had been facing problems, mainly caused by the lengthy restructuring process. For example the crude oil and natural gas extraction has experienced successive output contractions after 2001 (4-5% per year on average).

Most of the Romanian industry sectors, belonging to the second group, have been particularly affected by the recession (collapse or contraction of international markets, limitation of crediting by commercial banks as a result of the prudential regulations imposed by the National Bank of Romania; decline of construction business, triggering a collapse of related industrial branches; propagation of negative effects to the horizontally-connected sectors - e.g. the contraction of the automotive industry impacted the value chain of rubber processing, electrical machinery and equipment, metallurgy, etc. Among the most affected sectors were metallurgy (an output contraction by 49.9% compared to the first five months of 2008), other products obtained from non-metallic minerals (construction materials), with a production level 31.4% lower than in the first 5 months of 2008, and the automotive industry, which dropped by 12.7% from the first 5 months of 2008 (the rubber and plastics industry, which is horizontally connected to the automotive industry, also dropped by 16.6% from the same reference period).

However, other industries were not affected by the crisis and even expanded. The food industry, for instance, had a 9% year-on-year growth at the end of 2009. A similar situation had the beverage and tobacco industry.

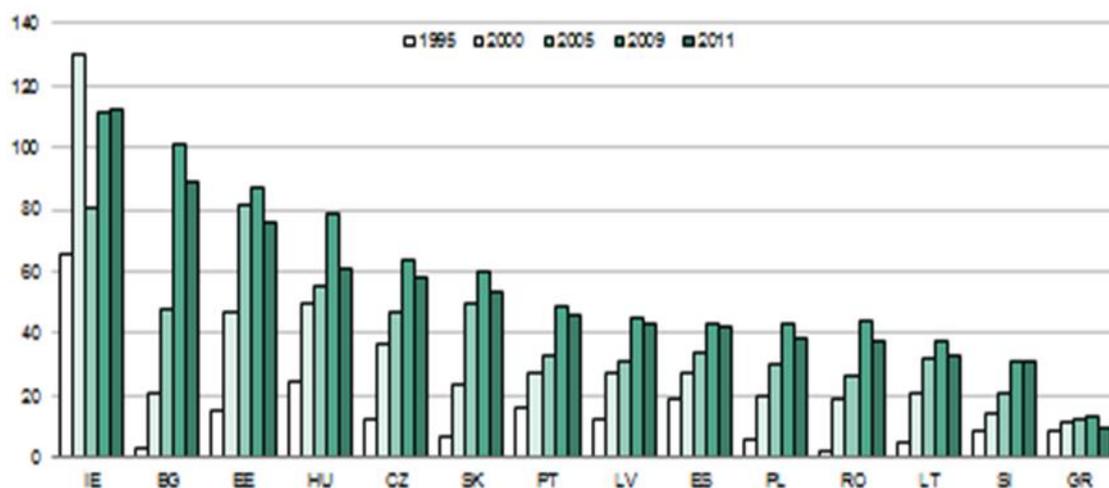
¹⁵ Analysis provided by S.N. PETROM ENERGIE ROMANIA and U.F.S. ATLAS ROMANIA Petrom for the purposes of the project

Internationalization, entry in the GVC and exports

During the post-communist transition Romania economic development has been heavily dependent of foreign markets and foreign investment.

Foreign direct investments (FDIs) are considered a powerful tool for the modernization of the industry for South-Eastern Europe. Foreign investment in Romania started to increase massively since the end of the 1990s. Although FDI stock is not very high (compared to other CEEC – see fig. 5), FDI play significant reindustrializing role, similar to the one, observed in the Visegrad group¹⁶.

Figure 5 Inward foreign direct investment stock in selected countries 1995-2011, in % of GDP



Source: UNCTAD, 2012¹⁷

The evolution of foreign direct investments in the Romanian economy had major fluctuations during the post-communism:

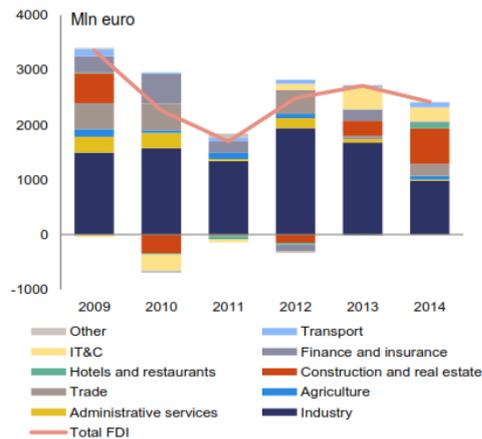
- 2003-2006 - an increase in the flow of foreign investments as a result of privatization and restructuring in industry (oil and petrochemical industry, machine building, metallurgy); they expanded almost five times, from EUR 1.94 billion in 2003 to EUR 9.05 billion in 2006;
- 2007-2008 - foreign investments continued to grow, reaching EUR 9.49 billion;
- After 2009 - as a consequence of the economic crisis, foreign investments declined dramatically to EUR 2.22 billion.

¹⁶ Including Poland, Hungary, Czech Republic and Slovakia.

¹⁷ Drahokoupil and Galgoczi, 2014

Among the largest foreign investors in Romania are Renault Group (EUR 2,3 billion and 17 000 employees), Continental (EUR 2 billion and 16 000 employees), Procter & Gamble, Daimler AG and Microsoft¹⁸.

Figure 6 Inward FDI flows by activity



Source: National Bank of Romania

Source: National Bank of Romania in European Commission¹⁹

Greenfield investments into manufacturing are a key indicator for new investments that contribute to a re-industrialisation process and may create a potential for future growth and export performance. Romania has medium level share of manufacturing in terms of greenfield investments in CEE (lower than Central Europe, but better than Bulgaria), as figure 7 shows. During the last few years greenfield investment was important in branches of manufacturing, e.g. automotive components. According to the state agency InvestRomania, the strategic sectors for the foreign investment are: ICT, automotive, aerospace, agriculture, bio industries and creative industries²⁰.

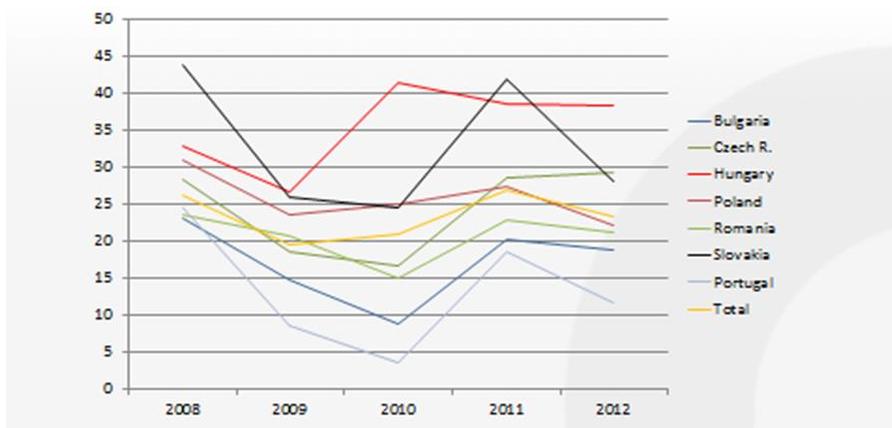
In summary, high foreign direct investment (FDI) is clearly one of the strengths of the Romanian industry, with FDI composition supporting a modernisation and reindustrialisation process.

¹⁸ <http://investromania.gov.ro/web/business-in-romania/success-stories/>

¹⁹ European Commission (2016) Country Report Romania 2016 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances, http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_romania_en.pdf

²⁰ <http://investromania.gov.ro/web/about-us/>

Figure 7 Share of manufacturing in greenfield projects



Source: wiiw, 2013²¹

The exports of Romania increased ²² and total EUR 52,5 and 54,5 billion respectively for 2014 and 2015 (4% yearly increase). Almost three fourth of the Romanian exports are designated for the EU countries²³. The leading exports of the country in 2014 are transport equipment and vehicles, followed by other manufacturing products (Fig. 8). More concretely, the main non-agricultural export products in 2015 are: parts for motor vehicles – USD 4 951 million, insulated electric conductors – USD 3 648 million, motor cars for transport of persons USD 3 233 million, petroleum oils, other than crude – USD 2 022 million and seats and parts thereof – USD 1 524 million (WTO²⁴).

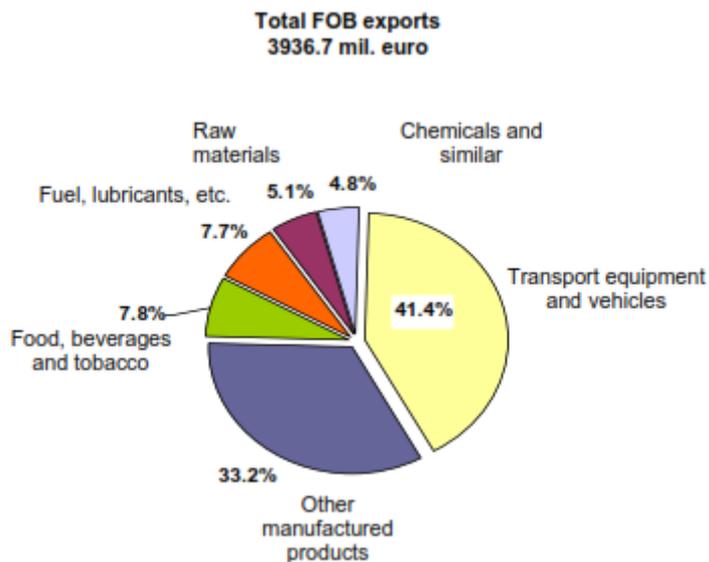
²¹ Op. cit.

²² http://ec.europa.eu/eurostat/statistics-explained/images/b/b2/International_trade%2C_2014%E2%80%9315_YB16.png

²³ http://ec.europa.eu/eurostat/statistics-explained/images/8/8d/Intra_and_extra_EU-28_trade%2C_2015_%28imports_plus_exports%2C_%25_share_of_total_trade%29_YB16.png

²⁴ <http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=S&Country=RO>

Figure 8 Structure of Romanian exports (January 2014)

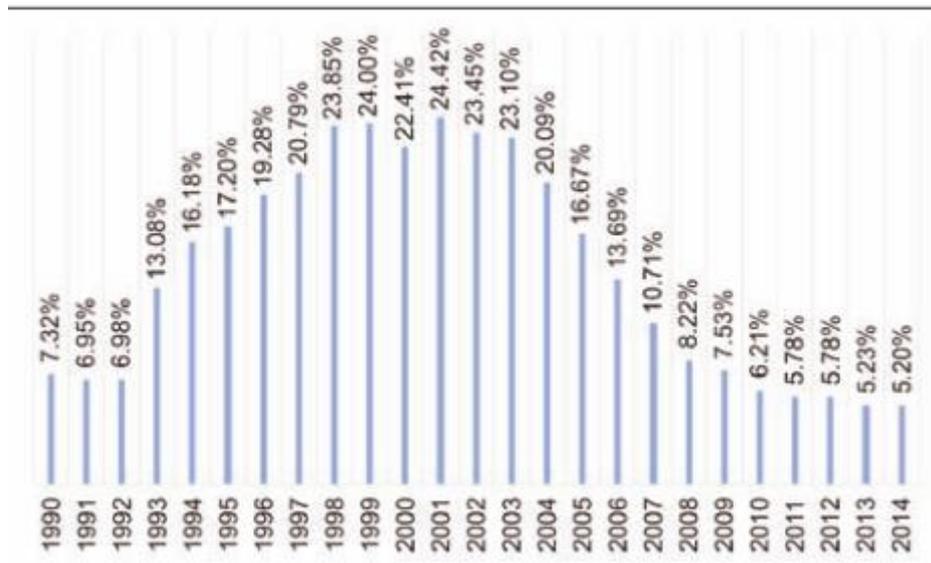


Source: INSSE²⁵

As it could be seen from fig. 9, sectors such as clothing have been one of the largest contributors to exports by the end of the 1990s and the beginning of 2000s, but during the last years their share has decreased to about 5% of all exports.

Figure 9 clothing exports in the total Romanian exports (in %)

²⁵ PRESS RELEASE No. 63 of March 12, 2014, The international trade of goods in January 2014 – estimated data



Source: INSSE in Tripa, Oana and Cuc²⁶

In summary, the increasing exports of the country are certainly one of the strength of Romanian industry; however the structure of exports suggests weaknesses in terms of the still important share of raw materials and low value added products.

Innovation

Innovation is identified as one of the key challenges for the Romanian industry and more largely economy. The insufficient degree of innovativeness of Romanian companies is underlined in the “Romania: National Strategy for Competitiveness 2014 - 2020” as the key challenge named “low competitiveness and weak research and innovation system”.

Different sources indicate the innovation related challenges of the country. According to the Global Competitiveness Report, in 2015-2016 Romania is ranked 54²⁷ (from 140 countries) in terms of the Global Competitiveness Index, but 84th in terms of innovation and sophistication.

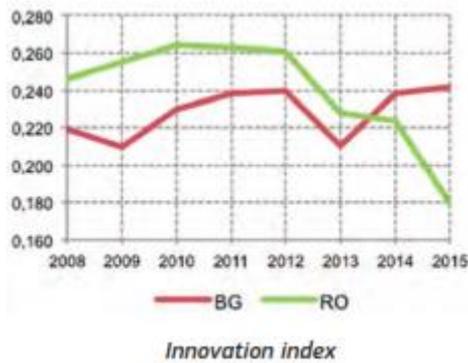
According the Innovation Union Scoreboard, Romania has one of the lowest levels in the EU27²⁸. In the lastly published European Innovation Scoreboard 2016, Romania and Bulgaria are the two countries in the group of ‘modest innovators’ and in general their results over the last few years are mixed (see fig. 10) and not converging with EU average.

Figure 10. Modest Innovators – Bulgaria and Romania

²⁶ Industria Textila, ISSN 1222–5347, 5/2016

²⁷ <http://reports.weforum.org/global-competitiveness-report-2015-2016/competitiveness-rankings/>

²⁸ European Commission, 2013-b



Source: European Innovation Scoreboard 2016

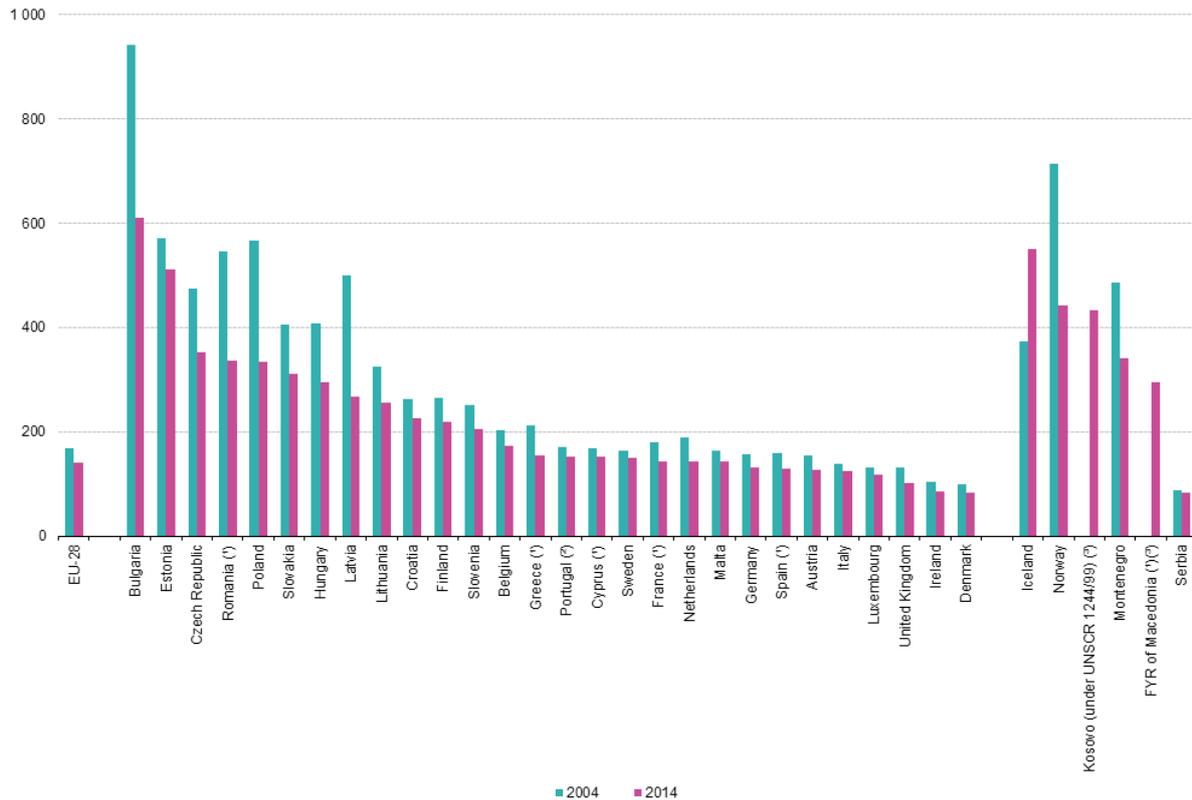
R&D investment is considered to be crucial for the innovativeness of the country. According to the Europe 2020, the national target for Romania is that 2.0 % of GDP to be invested in R&D (while the European target is 3 % of GDP to be invested in R&D)²⁹. The last available data shows that the country is still far from the achieving that target (0,38% in 2014 compared to 0,45% in 2010).

Energy efficiency

Romania has the fourth most energy-intensive economy in the EU (with an energy intensity of more than twice the EU average) (see fig 11). This is mainly due to the size of the manufacturing industry relative to the economy as a whole and to the high proportion of energy-intensive industries. Effective action is therefore needed in these industries in particular.

Figure 11 Energy intensity of the economy, 2004 and 2014 (kg of oil equivalent per 1 000 EUR of GDP)

²⁹ http://ec.europa.eu/europe2020/europe-2020-in-your-country/romania/progress-towards-2020-targets/index_en.htm



(*) 2014: provisional.
 (*) 2014: estimate.
 (*) 2004: not available.
 Source: Eurostat (online data code: tsdec360)

Source: Eurostat³⁰

Romania made significant efforts to reach the EU 2020 targets in terms of renewables (with national target of 24 % of total energy consumption from renewable sources by 2020, higher than the European one and already reached)³¹.

In summary to this section, Romania has number of advantages, but still its performance in the field of industry is poor and the country is placed among the group ‘modest but improving competitiveness’ group, with most of the Central European and Southern European countries in the 2014 “Member States’ Competitiveness Report: Reindustrialising Europe”³².

³⁰ [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Energy_intensity_of_the_economy,_2004_and_2014_\(kg_of_oil_equivalent_per_1_000_EUR_of_GDP\)_YB16.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Energy_intensity_of_the_economy,_2004_and_2014_(kg_of_oil_equivalent_per_1_000_EUR_of_GDP)_YB16.png)

³¹ http://ec.europa.eu/europe2020/europe-2020-in-your-country/romania/progress-towards-2020-targets/index_en.htm

³² http://ec.europa.eu/growth/industry/competitiveness/reports/ms-competitiveness-report_en

3. Human resources and skills

The human resources development and skills acquisition in the industry are crucial for its development and particularly relevant from a trade union perspective³³. The sections below examine the situation in Romania in terms of demographic development, skills supply, wages and working conditions and social dialogue.

Demographic change

Romania seriously hit by the demographic challenge³⁴. As a result of emigration and negative growth, Romanian population has decreased during the transition years, including working age population, and there are important demographic imbalances by age groups. Different recent demographic forecasts³⁵ provide rather pessimistic scenarios about the demographic developments in Romania: the Eurostat projections for the period 2010-2060 state that the population will decrease by nearly 19% (one of the sharpest decline) and the share of the population over 65 will reach 35%.

Thus, the demographic crisis is part of the weaknesses of the Romanian industry in terms of labour force and skills supply. This negative trend is particularly visible in some regions of the country. In addition, the ageing population is a pressure for the social security system.

Skills supply

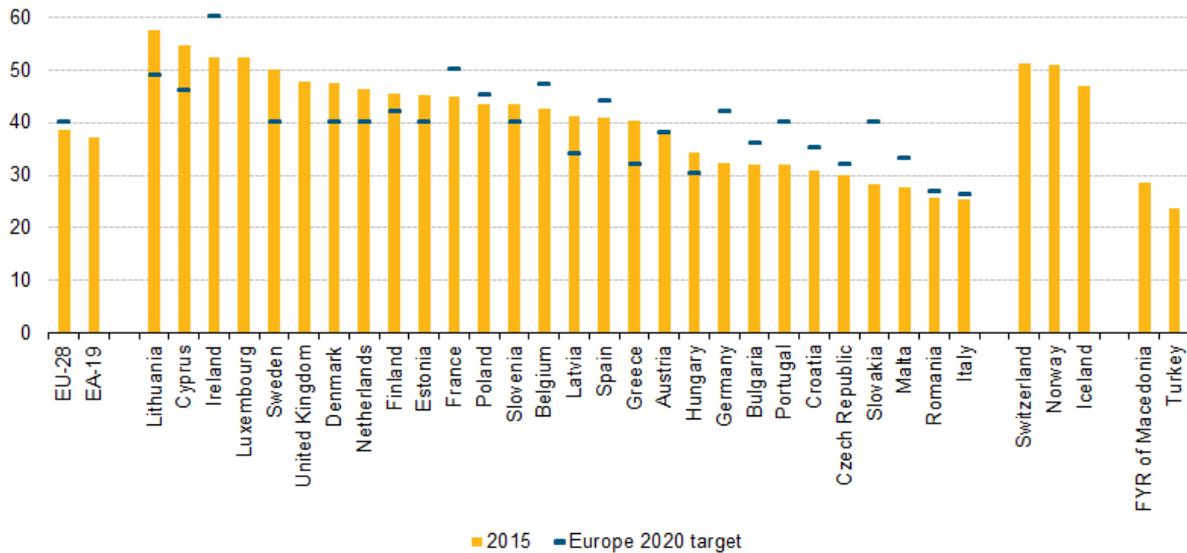
Traditionally, Romanian industry and economy have well trained and qualified human resources. Most of the indicators confirm this conclusion. Secondary school (secondary education) and college/university (tertiary education) attainment of Romanians rose in the last decade (Eurostat). The Europe 2020 Strategy focuses on the skills. Among the national targets for Romania it is set that at least 26.7% of 30-34-year-olds should complete third level education (ISCED levels 5 and 6) in 2020 (the European target is 40%). In 2015 with 25,6% Romania is not far from reaching the target.

Figure 12 Population aged 30–34 with tertiary educational attainment (ISCED 5–8), by country, 2015

³³ Including ETUC, IndustriAll

³⁴ See Vasile, V. <http://www.ier.hit-u.ac.jp/pie/stage1/Japanese/seminar/workshop040220/Vasile.pdf>

³⁵ Eurostat, News Release, 80/2011 - 8 June 2011, Population projections 2010-2060



(*) In the cases where the national target has been set within a range between two possible values, the lower level has been taken. The United Kingdom did not set a specific Europe 2020 target.

(†) The national target for Luxembourg is 66%.

Source: Eurostat³⁶

But if general skills levels are high, there are indications for the existence of specific skills gap. The Industrial Performance Scoreboard of the European Commission suggests that that in 2011 Romania had a low share of employees with high qualifications in manufacturing than the EU27 average of 20%. This fact is also visible from multiple studies and analyses concluding that several sectors in the country lack qualified labour force³⁷. Although some attempts to address the situation have been done - the recent introduction of the dual vocational education system and concrete initiatives of social partners - the situation is still problematic.³⁸ The recent report of the Council (2016, p. 5) concludes that: “the tertiary attainment rate is increasing, but the quality and labour market relevance of higher education is limited. Participation in adult education is very low”³⁹.

In summary, the educational attainment of the labour force is increasing (opportunity), but still number of sectors and professions suffer the deficit of qualified labour and this is a weakness and potential threat for the Romanian industry (for example investors that could change their decisions because of the lack of qualified people).

³⁶ http://ec.europa.eu/eurostat/statistics-explained/images/8/82/Population_aged_30%E2%80%9334_with_tertiary_educational_attainment_%28ISCED_5%E2%80%932C_by_country%2C_2015_%28%2B9%29%2C_%25.png

³⁷ http://skillspanorama.cedefop.europa.eu/en/analytical_highlights/romania-mismatch-priority-occupations

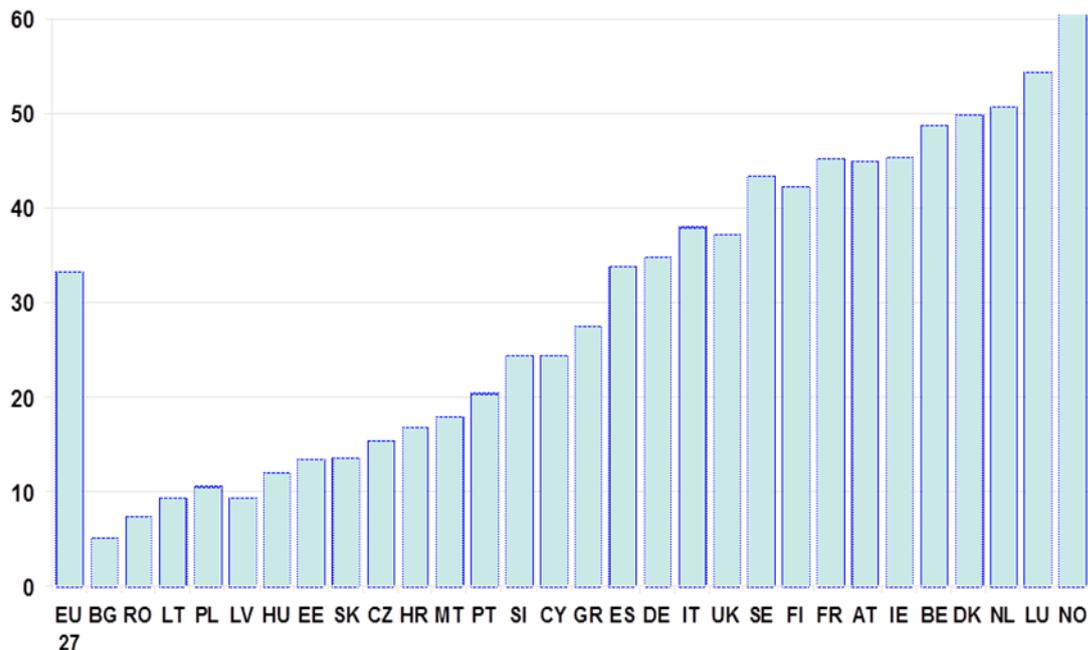
³⁸ <https://search.oecd.org/countries/romania/ASkillsBeyondSchoolCommentaryOnRomania.pdf>

³⁹ http://ec.europa.eu/europe2020/pdf/csr2016/csr2016_romania_en.pdf

Wages and working conditions

Romania has the second lowest labour costs in the EU (figure 12). Compensation of employees (that includes gross wages and social security contributions paid by employers) in Romania is much lower than the EU average.

Figure 13 Yearly compensation per employee in the EU27, Croatia and Norway, 2010 (Euro, thousands)



Source: Ameco database⁴⁰

The cost competitiveness in terms of wages could be strength of the economy in the short term. However in the medium and long term wages are expected to increase (and have increased during the recent years). The low wage levels (in comparative and real terms) represent a significant challenge for the Romanian trade unions. As it could be seen from table 1, wages in the industry are similar to the average wages for the country. However inside industrial activities there are significant differences and wages in part of the light industries (such as clothing) are very low.

Table 1 Monthly average net nominal earnings by activity of the national economy

⁴⁰ In Drahokoupil and and Galgoczi, 2014

**Monthly average net nominal earnings,
by activity of the national economy**

Activity (CANE Rev. 2 sections)	lei / employee			
	2011	2012	2013	2014 ¹⁾
Total	1444	1507	1579	1706
Agriculture, forestry and fishing	1044	1093	1179	1314
Industry	1470	1541	1604	1744
Mining and quarrying	2577	2786	2943	3368
Manufacturing	1324	1393	1466	1594
Electricity, gas, steam and air conditioning production and supply	2787	2904	2917	3043
Water supply; sewerage, waste management and decontamination activities	1333	1388	1427	1515
Construction	1247	1193	1191	1281
Wholesale and retail; repair of motor vehicles and motorcycles	1227	1305	1293	1536
Transport and storage	1580	1624	1629	1757
Hotels and restaurants	841	850	898	993
Information and communication	2965	2992	3067	3267
Financial intermediation and insurance	3435	3587	3645	3859
Real estate activities	1268	1248	1349	1479
Professional, scientific and technical activities	2061	2216	2351	2620
Administrative and support service activities	966	1030	1132	1255
Public administration and defence; compulsory social security ²⁾	1909	2102	2420	2347
Education	1316	1371	1533	1492
Human health and social work activities	1210	1315	1456	1495
Arts, entertainment and recreation	1076	1148	1216	1288
Other service activities	852	929	991	1169

¹⁾ Provisional data, excluding the earnings of employees in the economic units having less than 4 employees.

²⁾ Excluding armed forces and similar staff (Ministry of National Defence, Ministry of Internal Affairs, Romanian Intelligence Service etc.).

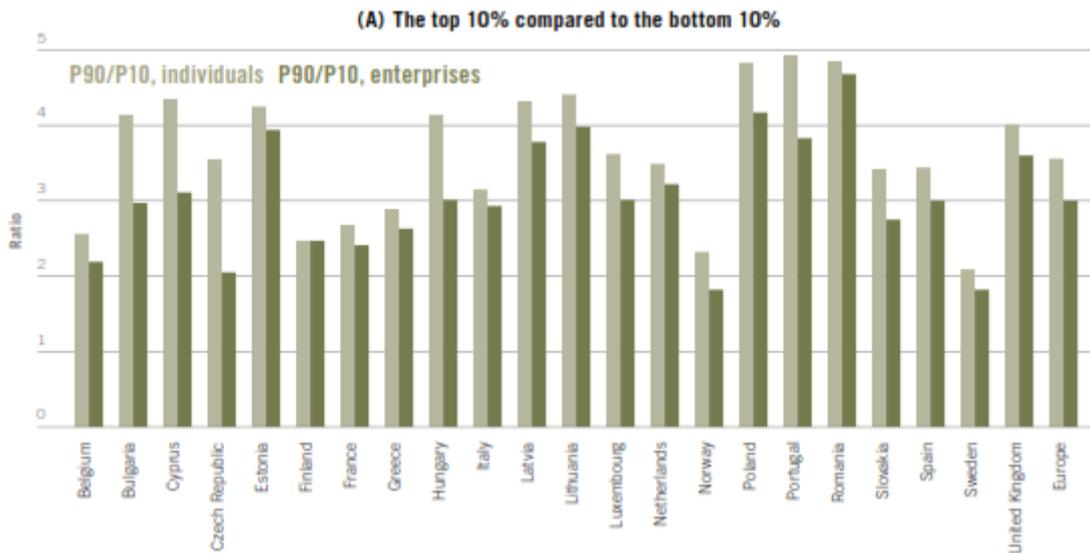
Source: Labour Cost Survey (2011, 2012 and 2013);
Monthly Survey on Earnings (2014)

Source: INSSE⁴¹

Finally, Romania has been pointed out as one of the countries with larger wage inequalities between enterprises and between individuals (see fig. 14 - ILO, 2016)

⁴¹ http://www.insse.ro/cms/files/publicatii/Romania_in_figures_2015.pdf

Figure 14 - Wage inequality between individuals and between enterprises comparing P90/P10 and P100/P10, selected European countries, 2010



Source: ILO⁴²

Working conditions in Romania have certainly improved during the last years, but still the situation in number of sectors is risky. The general public perception is that working conditions deteriorate: 64% of Romanians say their working conditions are bad and 55% say they deteriorated in the past five years, according to a recent Eurobarometer survey⁴³. The number of accidents, according to the national statistics is decreasing⁴⁴.

The findings from the 5th wave of the EWCS from 2010⁴⁵ confirm that countries in Eastern Europe are mainly dominated by poor balanced and low quality jobs (ref. Eurofound 2010, p. 51). Hence, jobs in these countries are mainly lower quality jobs while the percentage of good jobs is very limited⁴⁶. Examples from different quality of work elements illustrate this trend. Still the job discretion level is the lowest for the transitional countries. In terms of cognitive demands (defined as category of job demand that impinge primarily on the brain processes involved in information processing - e.g. the difficulty of the work) they manage better only compared to the South-European (SE) model. The environmental risks are higher in the

⁴² ILO (2016) Global Wage Report 2016/17

Wage inequality in the workplace, http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_537846.pdf

⁴³ http://ec.europa.eu/public_opinion/flash/fl_398_fact_ro_en.pdf

⁴⁴

<http://www.mmuncii.ro/pub/imagemanager/images/file/Statistica/Buletin%20statistic/2011/conditii%20de%20munca%20%20anul%20202011.pdf>

⁴⁵ The 6th EWCS wave results, carried out in 2015, will be available soon

⁴⁶ See also: Convergence and Divergence of Job Quality in Europe from 1995 to 2010. A report based on the European Working Conditions Survey, EUROFOUND, http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1521en.pdf Convergence /Divergence Report

CEEC, the physical demands (category of job demand primarily associated with the musculoskeletal system) are also very high, after the countries from South-Eastern Europe. Only in few areas the situation is better, compared to other regions in Europe, namely in terms of work intensification – it is the lowest within the transition countries among all models.

With few exceptions, wages in the Romanian industry are low, compared to all the other EU countries and working conditions are still problematic. The recent 2015 EWCS results confirm this trend for Romania, where 52% of all jobs are qualified of ‘poor quality’⁴⁷.

Social dialogue

According to Eurofound, Social Dialogue Law 62/2011 abolished collective bargaining at national level in Romania. In addition, this law modified the union density required to negotiate a collective agreement: now 50%+1 in the bargaining unit, compared to 1/3 previously. Labour legislation was amended under pressure from the International Monetary Fund and the business community, and the new Law was adopted by emergency procedure. As a result of these changes, in plants where there is no union representation, negotiations are carried out by so-called employee representatives who have no or little bargaining experience. The new law has weakened union power a great deal and has made it very difficult for unions to influence and contribute to shaping the industrial policy agenda⁴⁸. The new legislation replaced the branch collective bargaining with sectoral collective bargaining and decentralised collective bargaining by increasing the importance of the collective agreements at company level. In 2011–2013, the only collective bargaining was at company level, but it is not mandatory to reach a collective agreement as a result of the bargaining. Under new conditions interviewed trade union leaders underline their difficulties. There are different estimates of bargaining coverage (around 30 – 35%⁴⁹).

Box 3 – Trade unions in the Romanian industry

After the fall of the communist regime, UGSR (the Union of all trade unions in Romania) broke into several sectoral federations. Competing organizations were set up in most fields and even in most of the major companies. The main consequence was the weakening of trade union organizations. Rivalries were often pushed by governments and/or employers. Privatization led to the dissolution and to the loss of relevance and negotiation power of trade unions in companies, as well as at federation and confederation level. The employers, both local and foreign, have been hostile to trade unions and sapped their role and influence as

⁴⁷ Eurofound (2016), Sixth European Working Conditions Survey – Overview report, Publications Office of the European Union, Luxembourg, p. 131.

(https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1634en.pdf)

⁴⁸ See more in Chivu L, Ciutacu C, Dimitriu R and Ticlea T (2013) The Impact of Legislative Reforms on Industrial Relations in Romania. Report for ILO. Budapest.

⁴⁹ <http://www.worker-participation.eu/National-Industrial-Relations/Countries/Romania/Trade-Unions>

much as possible, down to dissolution. At the same time, employers' organisations strengthened their position. The most influential of them is the Council of Foreign Investors, an association of employers/managers in the industry privatized with foreign (primarily European) capital.

The trade union organizations and federations remained present - although not strong - in the public sector and in companies in which the state still holds interests (including as a minority shareholder). Industrial activities in which trade unions continue to play a significant role: (i) extractive industry (oil, gas, coal, iron and non-ferrous ore mining); (ii) energy: power generation, gas transportation; (iii) transportation: (public) railways, air transport; (iv) metallurgy; (v) automotive industry - mainly at Renault Dacia Pitesti, due to tradition and to the privatization contract; there are actually few trade unions in the industry manufacturing automotive components (Dräxelmaier plant in Pitesti; Euro APS/Faurecia in Mioveni; Leoni plants in Bistritta and Pitesti; Michelin plant in Zalau; Valeo plant in Pitesti.).

Trade union confederations representative at national level:

Blocul Național Sindical

CNS „Cartel Alfa”

CNSLR Frăția

Confederația Sindicală Națională Meridian

Confederația Sindicatelor Democratice din România

Source: Petrom analysis

4. Industrial policy in Romania

*Stakeholders, including the government, businesses, and research institutions need to find effective mechanisms to agree on priorities, coordinate the required policies, and take action on education, on supporting innovation, and on research priorities to steer the economy towards activities with higher value added.*⁵⁰

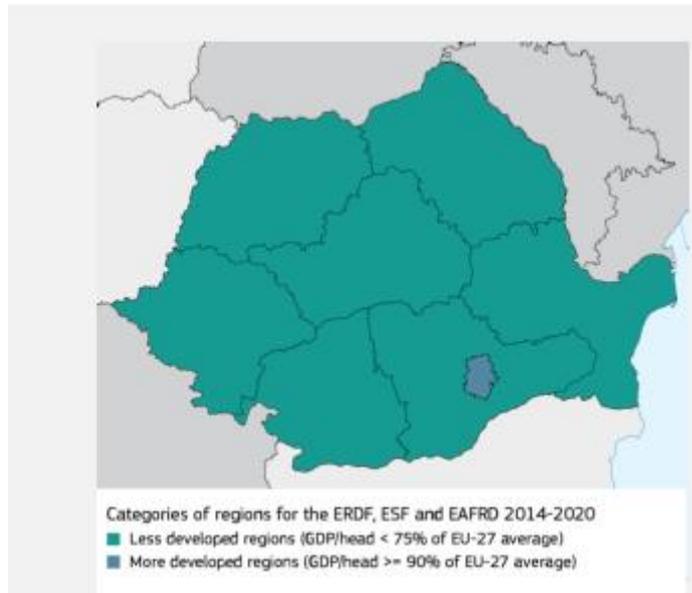
After the end of the plan, in early 1990s, in Romania, as in the other countries in South-Eastern Europe there was a widely shared belief that the invisible hand of the market is sufficient to regulate all the problems. For a couple of years the industry was considered by many policy makers as a burden for the economy⁵¹. In this period stakeholders were focused on privatization, as if the property change would automatically bring economic and social development.

⁵⁰ <http://ec.europa.eu/DocsRoom/documents/6723/attachments/1/translations>

⁵¹ This period was characterised as one with 'deficit of strategic perspective' (Zhelev, 2014).

The European integration of the country stimulated the interest in programming, including in the domain of the industry. In parallel with the different national development strategies, the operational programmes for the EU structural funds have been adopted. The most relevant for the industrial development are certainly those concerning competitiveness.

Figure 15. Regions in Romania, according to their level of development



Source: European Commission⁵²

As it could be seen from the fig. 15, all the regions of the country, except the capital Bucharest are part of the less developed regions, with GDP of less than 75% of the EU average.

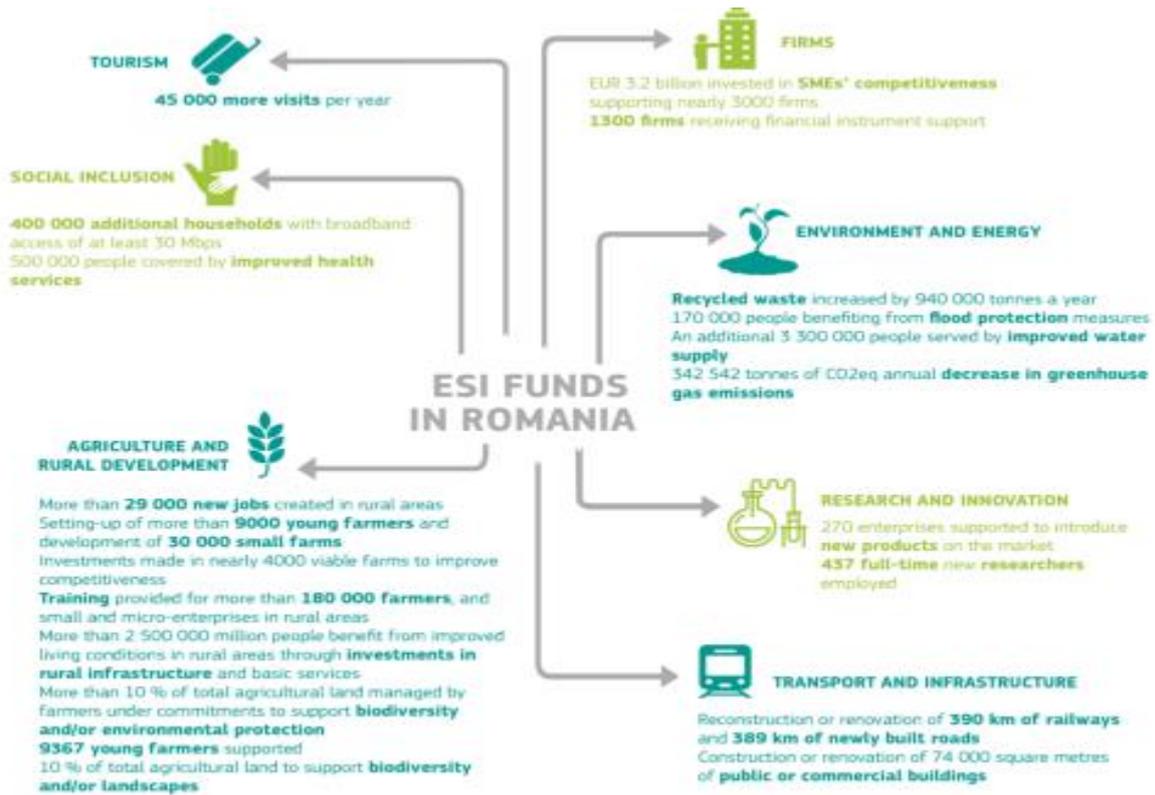
The main targets for the EU funds are presented in the fig. 16 below.

While EU structural funds measures in the concrete operational programmes are certainly beneficial for the development of the sectors, covered by the IndustriAll and EFFAT affiliates in Romania, it should be acknowledged that their resources are limited. And while the funds use is an opportunity, the delay in their absorption could be a serious threat⁵³.

Figure 16 Targets of the EU funds in Romania

⁵² http://ec.europa.eu/regional_policy/sources/policy/what/investment-policy/esif-country-factsheet/esi_funds_country_factsheet_ro_en.pdf

⁵³ <http://www.romania-insider.com/romania-zero-eu-fund-absorption-2014-2020-allocation/>



Source: European Commission⁵⁴

During the recent years there has been also a gradual change in the understanding of the role of the industry and the need of re-industrialization/ renaissance of the industry. Several strategic national documents have been adopted (but some delayed)⁵⁵.

The Romania National Strategy for competitiveness 2014- 2020 identifies several strategic challenges (table 2):

Table 2 Development challenges and funding priorities for Romania - 2014-2020

⁵⁴ http://ec.europa.eu/regional_policy/sources/policy/what/investment-policy/esif-country-factsheet/esif_funds_country_factsheet_ro_en.pdf

⁵⁵ According to the European Commission, although manufacturing represents a higher proportion of total value added in Romania than in any other Member State, the country has been lacking a strategy for industry since 2009. In 2013, the government started work on an industrial policy document and a strategy for competitiveness. These efforts were delayed, however, partly due to the lack of political continuity and resources

Development challenges of the period 2014-2020	Funding Priorities
<i>Low competitiveness and weak research and innovation system</i>	<i>Promoting economic competitiveness and local development</i>
<i>Underdeveloped infrastructure endowment</i>	<i>Developing modern infrastructure for growth and jobs</i>
<i>Low labour market participation:</i> - <i>Bottlenecks of the education and training system</i> - <i>Low labour market participation</i> - <i>Population living at risk of poverty or social exclusion</i> - <i>Young people not in employment, education or training into the labor market</i>	<i>Improving human capital through higher employment and better social inclusion and education policies</i>
<i>Inefficient use of resources</i>	<i>Optimising the use and protection of natural resources and assets</i>
<i>Weak administration and public governance</i>	<i>Modernisation and reinforcement of the national administration and of the judiciary</i>

Source: Romania National Strategy for competitiveness 2014- 2020

The strategy clearly sets several objectives relevant to the industry: e.g. Industrial revitalization through smart specialization and transformation of knowledge into a source of competitive upgrading; re-defining industrial policies through the orientation towards innovation and strengthening the functioning of the market mechanism; Integration of network industries in the industrial value chain, etc. Different tools are envisaged for the consultation of stakeholders but employees' representatives are not explicitly mentioned.

The Romanian Smart Specialization Strategy⁵⁶ there are several areas of strategic interest (see box 4 below). The clear objective for value chain and technological upgrade could certainly takes inspiration from the classification of the Romanian industrial branches as high, medium (see fig. 10) or low, according to their technological level. Even if during the last years there is a positive increase of the high and medium high technology industrial production, the catch-up rate is lower than in many CEEC (table 9 in Annexe).

⁵⁶

http://s3platform.jrc.ec.europa.eu/documents/20182/89935/Web_DUBLIN_Romania_background_19June2014.pdf/e98a3f94-327f-4ee4-b1b7-61f5183ed7ed

Box4 – Smart specialization areas⁵⁷

Smart specialization areas are areas of expected greater interest in R & D and Innovation investment from industry:

Biochemistry,

Information and communication technology, space and security,

Energy, environment, climate change,

Eco-nano-technologies and advanced materials.

Public priority areas are those of the general competence of the state and require substantial support from it:

Health

Heritage and cultural identity,

New and emerging technologies.

The role of Romanian social partners in the industrial policy formulation has long traditions, but also faces multiple challenges. According to a recent Eurofound study, “Industrial policy initiatives are often undertaken unilaterally by the government but other forms may include social partners in different constellations, including: bipartite initiative (a common approach by the social partners); tripartite initiative (the social partners in tandem with the public authorities); tripartite+ initiative (the three stakeholders in combination sometimes with other civil society players such as NGOs, research centres or qualified figures); public-private partnership initiatives (one social partner and the public authorities); and unilateral initiatives by a single social partner”.

The table 3 below suggests that the role and involvement of social partners is limited in most of the tools related to industrial policy at the different governance levels. This is confirmed by the interviewed respondents.

⁵⁷ <http://gov.ro/en/government/cabinet-meeting/the-national-research-development-and-innovation-plan-iii-for-2015-2020-approved-by-the-government>

Table 3 Social partners' involvement in industrial policy instruments/interventions at different government levels (3 = high degree of involvement, 2 = involvement to some extent, 1 = low degree of involvement, 0 = no involvement.)

Policy instruments:	National level	Regional level	Local level
Public investment programmes:			
infrastructure	1	3	3
construction	0	2	3
building renovation	0	0	3
Innovation programmes	3	2	2
Support for R&D	3	2	2
Cluster promotion	0	0	0
Export promotion	3	3	0
Internationalisation of SMEs	0	0	0
Improvement of access to finance:			
loan	3	0	0
loan guarantee programmes	3	0	0
venture capital funding	3	0	0
Public procurement policies	3	3	3
Tax and duty policies	3	3	3
Adapting the skills base	0	0	0
Subsidies for restructuring/ bail-out of companies in crisis	3	0	0
Social plans in case of restructuring. Training/re-training	3	3	3
Investment incentives	3	0	0
Energy efficiency/ energy shift	3	3	3
Energy supply security	3	3	3
Access to raw materials	3	2	2
Prices of energy and raw materials	3	3	3

Source: Eurofund⁵⁸

⁵⁸ <http://www.eurofound.europa.eu/observatories/eurwork/comparative-information/national-contributions/romania/romania-role-of-social-dialogue-in-industrial-policies>

But while the involvement of social partners in general is relatively high, according to the authors of the report, interviewed trade union officials express less optimistic attitude, namely if they are consulted government and the administration does not take their opinion into account. However there are number of positive practices in particular branches (metal, metallurgy – see examples in Annexe 3)

5. SWOT - Overall Industry

This section summarizes the strengths, weaknesses, opportunities and threats for the Romanian.

Strengths	Weaknesses
Macroeconomic stability	Corruption practices and ineffective judicial system
Relatively predictable and favourable fiscal policy	Demographic crisis and ageing population
Privatisation and restructuring completed for most of the industrial sectors (with few exceptions as the energy sector)	The share of exports in Bulgaria is lower than the CEE average
Existing heavy and light industry	In terms of the share of complex sectors in exports, Romania has still low values among CEECs.
High foreign direct investment penetration (FDI) in several key industrial sectors, FDI supports the modernisation and reindustrialisation process	Highest energy intensity of its GDP in the EU
Manufacturing growth	Manufacturing is hampered by low productivity and a lack of competitiveness.
Manufacturing as the main driver of exports (accounting for 75 % of total exports)	Productivity per worker is among the lowest in the EU
High Degree of population with higher of secondary education	Romania score in terms of innovation among the lowest in the EU

<p>Available climate and natural resources for agriculture and tourism</p> <p>Cost Competitiveness (among the lowest labour costs in the EU) - in the short run</p> <p>Increasing share of high and medium-high technology industrial production</p> <p>Development of clusters</p> <p>Development of traditional energy sources and renewables</p> <p>Solid social partnership in several sectors of the industry</p>	<p>Outdated technologies in many industrial companies</p> <p>Educational and skills mismatches</p> <p>Unbalanced energy production policy</p> <p>Low anticipation capacity for tackling restructuring in most of the branches</p> <p>Underdeveloped infrastructure</p> <p>Large share of informal economy</p> <p>Lack of national and sectoral level collective agreements.</p> <p>Limited absorption of EU funds.</p> <p>High energy use of the economy</p> <p>Modernisation of limited number of companies, mainly multinationals and vulnerability of the economy.</p> <p>Exports of benefits by MNC.</p> <p>Emigration attitudes of young Romanians.</p>
<p>Opportunities</p>	<p>Threats</p>

<p>EU membership provides access to the Single Market and also an important signalling effect to investors regarding essential legal guarantees.</p> <p>Absorption of EU funds.</p> <p>Infrastructure improvement</p> <p>FDI, especially in high-value added sectors</p> <p>ICT development</p> <p>Tourism as a driver</p> <p>Bio-agriculture</p> <p>Natural resources (including oil)</p>	<p>Global/European economic crisis and slow down</p> <p>Challenges for public finances because of ageing (social security)</p> <p>Shortages of well qualified specialists</p> <p>Growing global competition</p> <p>Non-compliance with environmental requirements</p> <p>Political Instability</p> <p>Non reformed judicial system</p> <p>Lack of feed-back from the labour market to the (vocational) education and training</p> <p>Business environment is improving slowly</p>
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Annexes

Annexe 1 Statistical Data

Table 4 Real GDP growth

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Average 2005–2015
EU-28	2.1	3.3	3.0	0.4	-4.4	2.1	1.7	-0.5	0.2	1.5	2.2	0.9
Euro area (EA-19)	1.7	3.2	3.0	0.4	-4.5	2.1	1.5	-0.9	-0.3	1.1	2.0	0.8
Belgium	2.1	2.5	3.4	0.7	-2.3	2.7	1.8	0.2	0.0	1.3	1.4	1.2
Bulgaria	7.2	6.8	7.7	5.6	-4.2	0.1	1.6	0.2	1.3	1.5	3.0	2.3
Czech Republic	6.4	6.9	5.5	2.7	-4.8	2.3	2.0	-0.8	-0.5	2.7	4.5	2.0
Denmark	2.4	3.8	0.8	-0.7	-5.1	1.6	1.2	-0.1	-0.2	1.3	1.0	0.3
Germany	0.7	3.7	3.3	1.1	-5.6	4.1	3.7	0.5	0.5	1.6	1.7	1.4
Estonia	9.4	10.3	7.7	-5.4	-14.7	2.3	7.6	4.3	1.4	2.8	1.4	1.5
Ireland	5.8	5.9	3.8	-4.4	-4.6	2.0	0.0	-1.1	1.1	8.5	26.3	3.4
Greece	0.6	5.7	3.3	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.7	-0.2	-2.1
Spain	3.7	4.2	3.8	1.1	-3.6	0.0	-1.0	-2.6	-1.7	1.4	3.2	0.4
France	1.6	2.4	2.4	0.2	-2.9	2.0	2.1	0.2	0.6	0.6	1.3	0.9
Croatia	4.2	4.8	5.2	2.1	-7.4	-1.7	-0.3	-2.2	-1.1	-0.4	1.6	0.0
Italy	0.9	2.0	1.5	-1.1	-5.5	1.7	0.6	-2.8	-1.7	-0.3	0.8	-0.5
Cyprus	3.9	4.5	4.9	3.7	-2.0	1.4	0.4	-2.4	-5.9	-2.5	1.6	0.3
Latvia	10.7	11.9	10.0	-3.6	-14.3	-3.8	6.2	4.0	3.0	2.4	2.7	1.6
Lithuania	7.7	7.4	11.1	2.6	-14.8	1.6	6.0	3.8	3.5	3.0	1.6	2.4
Luxembourg	3.2	5.1	8.4	-0.8	-5.4	5.7	2.6	-0.8	4.3	4.1	4.8	2.7
Hungary	4.4	3.8	0.4	0.8	-6.6	0.7	1.8	-1.7	1.9	3.7	2.9	0.7
Malta	3.8	1.8	4.0	3.3	-2.5	3.5	1.8	2.9	4.5	3.5	6.2	2.9
Netherlands	2.2	3.5	3.7	1.7	-3.8	1.4	1.7	-1.1	-0.2	1.4	2.0	1.0
Austria	2.1	3.4	3.6	1.5	-3.8	1.9	2.8	0.7	0.1	0.6	1.0	1.2
Poland	3.5	6.2	7.0	4.2	2.8	3.6	5.0	1.6	1.3	3.3	3.6	3.9
Portugal	0.8	1.6	2.5	0.2	-3.0	1.9	-1.8	-4.0	-1.1	0.9	1.5	-0.2
Romania	4.2	8.1	6.9	8.5	-7.1	-0.8	1.1	0.6	3.5	3.0	3.8	2.7
Slovenia	4.0	5.7	6.9	3.3	-7.8	1.2	0.6	-2.7	-1.1	3.1	2.3	1.1
Slovakia	6.4	8.5	10.8	5.7	-5.5	5.1	2.8	1.5	1.4	2.5	3.6	3.6
Finland	2.8	4.1	5.2	0.7	-8.3	3.0	2.6	-1.4	-0.8	-0.7	0.2	0.4
Sweden	2.8	4.7	3.4	-0.6	-5.2	6.0	2.7	-0.3	1.2	2.3	4.2	1.8
United Kingdom	3.0	2.5	2.6	-0.6	-4.3	1.9	1.5	1.3	1.9	3.1	2.2	1.2
Iceland	6.7	5.0	9.4	1.5	-6.9	-3.6	2.0	1.2	4.4	1.9	4.2	1.8
Norway	2.6	2.4	2.9	0.4	-1.6	0.6	1.0	2.7	1.0	1.9	1.6	1.3
Switzerland	3.0	4.0	4.1	2.3	-2.1	3.0	1.8	1.0	1.8	2.0	0.8	1.9
Montenegro	:	:	:	:	:	:	:	-2.7	3.5	1.8	:	:
FYR of Macedonia	4.7	5.1	6.5	5.5	-0.4	3.4	2.3	-0.5	2.9	3.5	3.7	3.2
Albania (*)	5.5	5.9	6.0	7.5	3.4	3.7	2.5	1.4	1.0	1.8	:	3.7
Serbia	5.5	4.9	5.9	5.4	-3.1	0.6	1.4	-1.0	2.6	-1.8	0.7	1.5
Kosovo (*)	:	:	:	:	3.6	3.3	4.4	2.8	3.4	1.2	:	:
China (including Hong Kong) (*)	11.3	12.7	14.2	9.6	9.2	10.6	9.5	7.7	7.7	7.3	:	9.8
Japan	1.3	1.7	2.2	-1.0	-5.5	4.7	-0.5	1.7	1.4	0.0	0.5	0.5
United States (*)	3.3	2.7	1.8	-0.3	-2.8	2.5	1.6	2.3	2.2	2.4	:	1.4

(*) Based on chain linked volumes.

(*) Average 2005–2014 instead of 2005–2015.

(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Source: Eurostat⁵⁹

⁵⁹ http://ec.europa.eu/eurostat/statistics-explained/images/1/13/Real_GDP_growth%2C_2005%E2%80%932015_%28%25_change_compared_with_the_previous_year%3B_%25_per_annum%29_YB16.png

Table 5 Key economic, financial and social indicators

	2003-2007	2008	2009	2010	2011	2012	2013	2014	forecast		
									2015	2016	2017
Real GDP (y-o-y)	6.6	8.5	-7.1	-0.8	1.1	0.6	3.5	3.0	3.6	4.2	3.7
Private consumption (y-o-y)	14.1	7.1	-10.1	1.0	0.8	1.2	0.7	3.8	4.8	6.8	4.5
Public consumption (y-o-y)	0.1	6.7	3.7	-4.9	0.6	0.4	-4.6	0.3	1.4	3.5	3.1
Gross fixed capital formation (y-o-y)	21.3	17.6	-36.6	-2.4	2.9	0.1	-5.4	2.5	6.5	4.2	6.1
Exports of goods and services (y-o-y)	9.8	-3.2	-5.3	15.2	11.9	1.0	19.7	8.6	5.7	5.8	6.0
Imports of goods and services (y-o-y)	21.2	0.2	-20.7	12.6	10.2	-1.8	8.8	8.9	8.3	9.2	8.1
Output gap	4.4	7.4	-1.9	-3.9	-3.8	-4.8	-3.0	-2.0	-1.1	0.0	0.4
Potential growth (y-o-y)	5.4	6.8	1.8	1.2	1.0	1.8	1.7	1.8	2.4	2.8	3.1
Contribution to GDP growth:											
Domestic demand (y-o-y)	13.5	12.2	-19.9	-0.9	1.4	0.9	-1.7	3.0	4.7	5.7	4.7
Inventories (y-o-y)	-1.1	-2.7	5.9	0.2	-0.2	-1.4	1.6	0.2	0.0	0.0	0.0
Net exports (y-o-y)	-5.8	-1.0	6.9	-0.1	-0.1	1.1	3.6	-0.2	-1.1	-1.5	-1.0
Contribution to potential GDP growth:											
Total labour (hours) (y-o-y)	-0.7	-0.7	-0.8	-0.9	-1.0	-1.1	-1.0	-0.5	-0.2	-0.1	0.0
Capital accumulation (y-o-y)	1.8	5.4	1.6	1.5	1.4	1.4	1.0	0.6	0.7	0.8	1.0
Total factor productivity (y-o-y)	4.3	2.1	1.0	0.6	0.6	1.5	1.7	1.7	1.9	2.0	2.1
Current account balance (% of GDP), balance of payments	-9.4	-11.8	-4.8	-5.1	-4.9	-4.8	-1.1	-0.4	.	.	.
Trade balance (% of GDP), balance of payments	-10.6	-13.4	-6.7	-6.4	-5.8	-5.1	-0.8	-0.3	.	.	.
Terms of trade of goods and services (y-o-y)	4.9	3.4	1.2	1.3	1.8	-1.2	1.0	1.5	1.4	1.0	0.4
Capital account balance (% of GDP)	0.5	0.4	0.5	0.2	0.5	1.4	2.1	2.6	.	.	.
Net international investment position (% of GDP)	-38.0	-54.1	-64.1	-66.2	-68.5	-70.5	-62.6	-57.4	.	.	.
Net marketable external debt (% of GDP)1	-4.2*	-15.5*	-19.7*	-20.5*	-22.7*	-22.2*	-19.8	-15.7	.	.	.
Gross marketable external debt (% of GDP)1	36.0	45.7	57.0	62.3	63.8	61.0	54.7	50.7	.	.	.
Export performance vs. advanced countries (% change over 5 years)	84.0	113.6	83.7	65.9	63.7	25.8	24.7	29.85	.	.	.
Export market share, goods and services (y-o-y)	13.1	13.7	0.7	-0.5	6.6	-7.1	15.7	6.6	.	.	.
Net FDI flows (% of GDP)	-6.4	-6.3	-2.8	-1.8	-1.3	-1.9	-2.0	-1.8	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	-23.3	-14.3	-10.0	-13.6	-20.1	-27.2	6.7	.	.	.	.
Private credit flow (consolidated, % of GDP)	12.7	13.1	-1.7	0.8	2.8	0.3	-1.4	-2.4	.	.	.
Private sector debt, consolidated (% of GDP)	41.4	65.5	71.9	73.9	72.9	71.9	66.7	62.3	.	.	.
of which household debt, consolidated (% of GDP)	10.6	21.0	22.2	22.5	21.5	20.6	19.2	18.1	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	30.8	44.5	49.7	51.4	51.4	51.3	47.5	44.2	.	.	.

Source: European Commission, Country Report Romania 2016

Table 6 EU-28 countries industrial production annual change 2001 - 2014

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
EU-28	4.5	0.2	-0.5	0.5	2.4	1.5	4.1	3.6	-1.8	-13.9	6.8	3.1	-2.1	-0.5	1.1
EA-19	5.1	0.3	-0.5	0.3	2.1	1.5	4.2	3.8	-1.8	-15.1	7.3	3.4	-2.4	-0.7	0.8
Belgium	5.2	0.5	2.6	7.3	3.6	6.3	6.8	3.6	-10.1	11.1	4.1	-2.1	0.9	1.0	
Bulgaria	2.1	4.7	12.9	12.5	7.1	6.3	9.6	0.4	-18.4	2.1	5.9	-0.2	-0.1	1.7	
Czech Republic	7.6	1.9	3.7	9.7	4.3	8.7	10.6	-2.3	-13.1	8.2	5.9	-0.8	0.1	5.0	
Denmark	1.8	1.4	-0.1	-1.1	3.1	3.2	-2.6	-1.7	-14.8	2.0	1.9	0.1	0.4	0.8	
Germany	5.6	0.2	-1.0	0.5	3.1	3.5	5.7	6.1	0.0	-16.3	10.9	7.2	-0.3	0.2	1.3
Estonia	8.5	8.7	11.4	9.6	11.0	10.1	6.4	-4.8	-23.9	22.9	19.7	1.5	4.2	2.4	
Ireland	14.3	11.0	8.2	5.7	1.2	4.0	3.1	5.2	-2.2	-4.5	7.5	-0.4	-1.5	-2.2	20.9
Greece		-3.4	0.2	0.5	0.7	-1.6	0.8	2.3	-4.2	-9.7	-6.1	-5.8	-2.1	-3.2	-2.0
Spain	4.4	-1.4	0.0	1.3	1.6	1.0	3.9	1.8	-7.6	-15.8	0.8	-1.7	-6.9	-1.7	1.3
France	3.7	0.4	-1.6	-1.2	1.4	0.5	1.2	1.3	-3.2	-14.2	5.1	2.4	-2.6	-0.6	-1.2
Croatia	1.4	6.4	4.9	3.3	2.5	5.0	4.3	5.1	0.7	-8.9	-1.5	-1.2	-5.3	-2.0	1.4
Italy	4.2	-1.2	-1.4	-0.7	-0.2	-0.7	3.6	1.7	-3.4	-18.7	6.8	1.2	-6.3	-3.2	-0.5
Cyprus		4.8	1.8	-0.1	1.5	0.8	0.5	4.7	4.4	-9.4	-1.7	-7.7	-9.6	-13.5	-0.9
Latvia		10.8	7.3	8.0	6.4	7.5	6.5	1.5	-3.2	-18.0	14.4	8.8	6.2	-0.4	-0.9
Lithuania	-1.2	14.0	4.5	14.6	11.1	7.8	5.0	1.9	4.7	-13.8	6.1	6.6	3.7	3.3	0.2
Luxembourg		4.7	4.8	5.2	4.8	2.7	2.4	-0.3	-5.1	-16.0	8.7	2.0	-5.6	-4.1	6.1
Hungary		4.0	3.2	6.5	6.9	7.2	10.6	8.1	-0.8	-17.5	10.3	5.7	-1.4	1.5	7.1
Malta		-6.8	0.3	4.8	-0.7	-5.5	7.4	7.2	-4.5	-14.1	8.6	-0.1	5.4	-5.3	-5.7
Netherlands		1.1	1.0	-1.3	4.6	0.4	2.1	4.1	0.7	-7.6	7.8	-0.7	-0.5	0.5	-3.0
Austria	9.2	3.3	0.7	2.0	6.1	4.3	7.7	5.9	1.3	-11.3	6.7	6.8	-0.3	0.8	0.8
Poland		0.5	1.4	8.8	13.0	4.3	12.1	9.5	2.7	-3.9	11.1	6.7	1.2	2.3	3.4
Portugal		1.7	0.4	-1.0	-4.2	-3.5	3.1	0.1	-4.1	-8.6	1.6	-1.0	-6.1	0.5	1.8
Romania		4.2	0.2	-0.9	1.5	-1.7	9.9	10.1	1.9	-5.1	4.9	7.9	2.5	7.5	6.3
Slovenia	7.2	3.5	2.1	0.9	3.8	4.6	6.4	7.2	1.7	-17.8	6.9	2.1	-0.5	-1.4	1.7
Slovakia		3.6	7.0	15.5	3.6	-0.8	15.7	16.8	14.6	-15.6	8.2	5.3	8.0	5.2	3.7
Finland	8.8	0.0	1.4	0.0	4.9	-0.9	10.4	4.8	0.7	-17.8	5.3	1.7	-1.5	-3.2	-2.1
Sweden		-0.5	0.2	1.6	4.5	2.3	3.6	4.0	-3.0	-17.8	8.7	2.6	-1.2	-4.6	-1.7
United Kingdom	1.9	-1.6	-1.7	-0.8	0.5	-0.2	0.7	0.1	-3.0	-8.4	3.1	-0.6	-3.0	-0.2	1.5
Norway	3.1	-0.4	-0.2	-1.8	-1.2	-0.3	-2.1	-1.3	0.2	-3.5	-5.4	-4.5	2.7	-5.0	3.6
Montenegro												-10.2	-7.1	10.8	-11.4
FYROM		-3.1	-5.3	4.7	-2.2	7.0	5.9	3.9	5.1	-8.7	-4.8	6.9	-2.8	3.2	4.8
Serbia		0.6	1.6	-2.9	6.0	1.2	4.4	4.0	1.1	-12.5	1.1	2.5	-2.6	6.0	-6.6
Turkey						7.3	8.5	-1.1	-10.4	12.6	9.5	2.4	3.5	3.5	
Bosnia & Herzegovina							7.1	11.0	-6.6	4.2	2.3	-3.6	5.2	0.1	

: not available

Table 7 Gross value added at basic prices, 2005 and 2015 (% share of total gross value added)

	Agriculture, forestry & fishing		Industry		Construction		Distributive trades, transport, accommodation and food services		Information and communication		Financial and insurance activities		Real estate activities		Professional, scientific, technical, administrative and support services		Public administration, defence, education, human health and social work activities		Arts, entertainment and recreation; other services (*)	
	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015	2005	2015
EU-28	1.7	1.5	20.1	19.2	6.1	5.4	19.2	19.0	5.0	5.0	5.4	5.2	10.7	11.3	9.8	10.8	18.4	19.1	3.4	3.5
Euro area (EA-19)	1.8	1.6	20.6	19.9	6.0	5.0	19.3	19.0	4.7	4.6	5.1	4.9	10.6	11.4	10.0	10.8	18.3	19.4	3.5	3.5
Belgium	0.9	0.6	20.2	16.3	4.9	5.6	21.3	19.7	4.1	4.2	5.6	6.2	8.9	8.6	11.5	13.9	20.4	22.5	2.2	2.3
Bulgaria	8.5	5.1	22.3	23.0	6.0	4.7	21.4	21.0	3.8	5.4	5.9	7.7	10.4	10.5	4.3	5.6	15.5	14.5	2.0	2.5
Czech Republic	2.4	2.5	31.0	32.1	6.7	5.7	19.9	18.4	4.9	5.1	3.2	4.2	8.0	8.4	6.5	6.6	15.0	14.9	2.4	2.1
Denmark	1.3	1.1	20.8	18.7	5.4	4.5	20.1	18.8	4.3	4.6	5.2	6.4	9.6	10.3	7.6	8.8	22.1	23.1	3.4	3.6
Germany	0.8	0.6	25.5	25.9	3.9	4.6	16.5	15.8	4.6	4.8	5.3	4.1	11.2	10.9	10.7	11.1	17.3	18.2	4.3	4.0
Estonia	3.5	3.4	21.2	21.2	8.6	6.2	24.6	21.5	4.7	6.0	3.9	4.0	9.8	10.1	7.7	9.1	13.3	15.9	2.8	2.6
Ireland	1.2	1.0	24.6	39.1	9.8	2.5	15.8	12.8	6.9	8.1	9.7	6.3	6.7	6.7	8.1	9.6	15.2	12.3	2.1	1.5
Greece	4.8	4.0	13.5	12.6	6.4	2.6	25.8	25.4	3.9	3.2	4.7	4.4	11.6	17.2	5.7	5.5	19.5	21.0	4.2	4.1
Spain	3.0	2.5	18.9	17.0	11.6	5.5	22.7	24.5	4.5	4.2	4.7	3.9	8.0	11.7	6.6	7.6	16.2	18.7	3.9	4.4
France	1.9	1.7	16.0	14.1	5.5	5.4	18.2	17.7	5.4	5.0	3.8	4.5	12.5	12.8	12.2	12.8	21.5	23.0	3.0	3.0
Croatia	5.0	4.3	21.3	21.2	7.8	5.0	22.7	21.8	4.8	4.4	5.9	6.7	8.8	10.3	6.4	8.1	14.5	15.2	2.8	3.1
Italy	2.2	2.3	20.0	18.8	5.9	4.9	20.7	20.5	4.5	3.6	5.1	5.5	11.9	14.0	9.4	9.3	16.8	17.1	3.5	4.0
Cyprus	2.7	2.4	10.1	7.9	10.0	2.6	28.3	28.7	4.1	4.7	6.0	9.4	9.6	11.1	6.4	8.9	19.2	20.2	3.6	4.0
Latvia	4.3	3.3	16.2	16.4	6.7	6.5	30.4	25.2	4.6	4.8	4.4	4.6	9.4	12.5	6.0	7.7	15.1	15.7	2.9	3.3
Lithuania	4.8	3.3	24.9	22.6	7.8	7.6	28.2	32.5	4.1	3.2	2.2	2.2	6.4	6.3	5.1	6.0	14.3	14.3	2.3	2.0
Luxembourg	0.4	0.2	10.8	5.8	5.8	5.5	15.9	16.6	5.9	6.7	26.5	28.4	9.3	7.2	8.6	12.1	14.7	15.6	2.0	2.0
Hungary	4.3	3.6	25.7	27.4	5.7	4.4	17.3	18.3	5.1	5.1	4.6	3.6	7.6	7.8	8.1	9.2	18.5	17.6	2.9	3.0
Malta (*)	2.2	1.4	16.2	11.4	7.3	4.4	23.8	22.7	5.4	5.9	7.6	7.1	6.5	5.5	7.8	12.3	18.3	18.8	4.9	10.5
Netherlands	2.0	1.8	18.5	15.4	5.5	4.6	20.2	21.0	5.1	4.8	6.8	7.4	6.7	5.9	12.8	14.7	20.0	21.8	2.5	2.6
Austria	1.4	1.3	23.3	21.9	7.0	6.4	22.9	22.9	3.6	3.5	4.8	4.2	9.2	10.1	8.0	9.4	17.0	17.4	2.8	2.8
Poland	3.3	2.8	25.2	26.1	7.6	8.1	25.4	25.4	4.4	3.8	4.0	4.0	6.0	5.3	6.4	7.5	15.3	14.7	2.3	2.3
Portugal	2.6	2.4	17.7	17.3	6.9	4.6	22.3	25.1	3.9	3.1	6.6	5.4	8.7	12.4	6.4	6.9	22.4	19.9	2.5	2.9
Romania	9.5	4.8	28.2	26.4	7.8	8.5	21.0	17.9	4.5	6.4	2.3	3.9	8.4	9.1	3.4	8.3	12.5	11.7	2.4	3.0
Slovenia	2.6	2.4	27.6	27.3	6.5	5.5	19.3	20.4	4.0	4.2	4.5	4.2	7.6	6.9	8.3	10.0	16.7	16.5	3.0	2.7
Slovakia	3.6	4.0	29.5	25.2	6.6	9.2	23.0	22.0	3.9	4.5	4.2	4.1	6.8	6.7	5.9	7.2	13.7	13.6	2.7	3.6
Finland	2.6	2.5	27.1	20.6	6.4	6.3	17.1	15.9	5.0	5.8	2.7	2.9	10.2	12.7	6.6	8.5	19.6	21.8	2.7	3.1
Sweden	1.1	1.4	24.2	20.1	5.5	6.4	17.1	17.0	5.4	5.7	4.3	4.5	8.6	8.1	7.8	9.8	23.2	24.0	2.7	3.0
United Kingdom	0.6	0.7	15.4	13.3	6.6	6.1	18.3	18.6	6.3	6.5	7.6	7.2	12.5	13.0	10.5	12.3	18.5	18.4	3.7	3.9
Iceland (*)	5.7	6.2	14.1	17.7	10.8	5.5	16.4	17.8	5.6	4.7	8.6	7.7	9.5	10.3	6.7	7.6	20.1	19.5	2.4	3.0
Norway	1.6	1.8	37.8	28.3	4.7	6.4	15.0	15.4	4.0	3.9	3.9	4.8	7.0	7.3	5.5	7.5	18.4	22.6	2.0	2.0
Switzerland	0.9	0.7	21.7	20.0	5.1	5.5	20.7	20.5	4.3	4.1	11.9	9.6	1.0	1.0	7.8	10.1	18.0	19.2	8.7	9.2
Montenegro (*)	:	10.0	:	13.5	:	4.2	:	26.8	:	5.2	:	5.9	:	8.0	:	4.9	:	19.1	:	2.5
FYR of Macedonia	11.3	11.2	17.6	18.0	6.2	8.1	18.6	21.4	4.3	3.8	2.8	3.6	16.3	14.0	1.8	3.9	17.0	13.3	4.1	2.7
Albania (*)	21.5	22.9	11.1	14.7	17.5	10.0	19.4	18.1	5.2	3.2	2.5	2.9	8.4	7.1	2.2	5.8	10.5	12.7	1.7	2.7
Serbia	12.0	8.4	23.6	25.7	5.7	5.7	17.9	18.1	3.7	5.1	2.3	3.8	11.6	10.9	4.6	5.7	14.8	13.6	3.7	3.1
Kosovo (*)	:	14.3	:	19.4	:	7.3	:	20.3	:	2.4	:	4.8	:	10.8	:	2.4	:	17.6	:	0.7

(*) Includes also activities of household and extra-territorial organisations and bodies.

(*) Industry and professional, scientific, technical, administrative and support services: break in series.

(*) 2014 instead of 2015.

(*) This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Source: Eurostat⁶⁰

⁶⁰ http://ec.europa.eu/eurostat/statistics-explained/images/5/5d/Gross_value_added_at_basic_prices%2C_2005_and_2015_%28%25_share_of_total_gross_value_added%29_YB16.png

Table 8 Employment in Industry (selected years)

Employment, by main activity of the national economy				
thou persons				
Activity (CANE Rev. 2 sections)	2011	2012	2013	2014¹⁾
Total	8528	8605	8549	8614
Agriculture, forestry and fishing	2495	2557	2501	2442
Industry	1806	1790	1788	1852
Mining and quarrying	81	79	79	75
Manufacturing	1545	1533	1535	1595
Electricity, gas, steam and air conditioning production and supply	106	101	92	92
Water supply; sewerage, waste management and decontamination activities	74	77	82	90
Construction	631	638	630	640
Wholesale and retail; repair of motor vehicles and motorcycles	1066	1094	1085	1112
Transport and storage	405	405	429	432
Hotels and restaurants	169	172	175	181
Information and communication	120	147	144	148
Financial intermediation and insurance	134	127	118	112
Real estate activities	17	15	18	21
Professional, scientific and technical activities	158	158	166	193
Administrative and support service activities	147	150	172	184
Public administration and defence; compulsory social security	437	437	425	392
Education	363	346	323	311
Human health and social work activities	374	357	354	368
Arts, entertainment and recreation	52	55	54	55
Other activities of the national economy	154	157	167	171

Note: The series have been recalculated according to the usual resident population, taking into account the usual residence criterion.

¹⁾ Provisional data.

Source: Household Labour Force Survey (HLFS).

Source : INSSE⁶¹

⁶¹ http://www.insse.ro/cms/files/publicatii/Romania_in_figures_2015.pdf

Table 9 Number of persons employed by enterprise size class, manufacturing

	Total (thousands)	SMEs	Micro	Small (% of total)	Medium-sized	Large
EU-28	29 700.0	59.0	13.7	19.8	25.4	41.1
Belgium	514.3	55.1	11.3	19.3	24.5	44.9
Bulgaria	524.0	67.9	11.4	23.0	33.5	32.1
Czech Republic	1 212.5	57.2	15.4	15.0	26.8	42.8
Denmark	354.1	54.3	8.4	19.0	26.9	45.7
Germany	7 220.3	46.8	6.8	15.8	24.3	53.2
Estonia	104.6	75.0	12.2	23.9	39.0	25.0
Ireland	.	.	.	.	.	.
Greece	289.2	79.3	41.2	15.6	22.5	20.7
Spain	1 736.7	71.1	20.7	26.7	23.8	28.9
France	3 006.0	55.7	14.8	18.7	22.3	44.3
Croatia	261.7	62.1	16.0	19.7	26.4	37.9
Italy	3 733.7	76.6	24.5	30.1	22.1	23.4
Cyprus	28.8	87.4	35.4	30.1	21.9	12.6
Latvia	120.8	75.9	13.4	24.6	37.8	24.1
Lithuania	197.9	69.5	11.2	22.9	35.4	30.5
Luxembourg	33.6	45.3	4.1	14.2	27.0	54.7
Hungary	664.7	55.3	12.7	17.0	25.6	44.7
Malta	.	.	.	.	.	.
Netherlands	681.6	68.0	15.1	21.8	31.1	31.6
Austria	617.4	51.7	8.8	17.3	25.6	48.3
Poland	2 347.5	58.2	15.4	14.5	28.3	41.8
Portugal	637.4	79.7	19.4	30.1	30.2	20.3
Romania	1 166.3	55.0	8.0	18.4	28.6	45.0
Slovenia	188.8	60.3	16.2	16.0	28.1	39.7
Slovakia	440.5	54.2	18.6	12.5	23.1	45.8
Finland	352.0	52.7	10.4	18.0	24.3	47.3
Sweden	635.8	52.7	12.2	17.6	22.9	47.3
United Kingdom	2 482.9	58.8	9.9	20.7	28.1	41.2
Norway	235.4	59.2	10.6	21.5	27.1	40.8
Switzerland	685.8	59.6	9.0	21.2	29.4	40.4

: - not available

Source: Eurostat (online data code: sbs_sc_ind_r2)

Source: Eurostat, 2016⁶²

⁶² http://ec.europa.eu/eurostat/statistics-explained/images/3/38/Table_6a_Number_of_persons_employed_by_enterprise_size_class%2C_manufacturing_%28NACE_Section_C%29%2C_2013.png

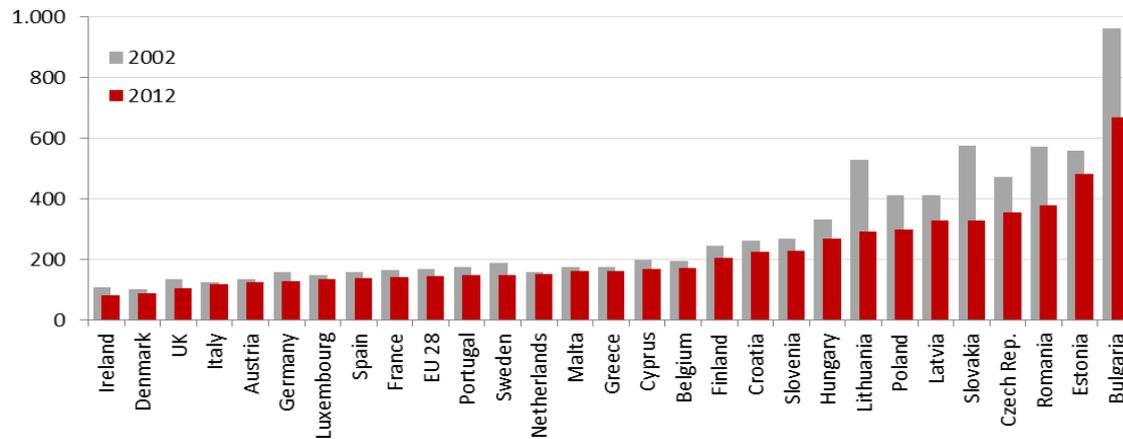
Table 10 Industrial production according to level of technology, annual average growth rates (%) 2005-2011, working day adjusted

	Technology level			
	High	Medium-high	Medium-low	Low
EU-27	3.3	1.0	-0.4	-0.7
EA-17	3.8	0.7	-0.8	-1.0
Belgium	5.1	0.6	0.4	1.0
Bulgaria	1.9	3.8	-0.1	-1.4
Czech Republic	5.4	7.3	1.5	-1.4
Denmark	1.4	1.4	-3.1	-3.2
Germany	6.6	2.3	1.8	0.1
Estonia	35.1	6.8	-0.1	-1.4
Ireland	3.6	3.4	-7.4	-1.1
Greece	-2.6	-5.7	-5.3	-4.9
Spain	1.5	-2.5	-5.0	-2.9
France	1.4	-1.7	-1.8	-1.1
Italy	-0.4	-2.2	-2.7	-1.8
Cyprus	-	-	-	-
Latvia	0.8	9.9	1.0	3.5
Lithuania	5.2	7.2	1.3	-0.1
Luxembourg	-	-	-	-
Hungary	4.6	4.0	1.0	-1.1
Malta	-	-	-	-
Netherlands	3.6	1.8	1.3	0.6
Austria	6.8	3.5	2.1	0.4
Poland	14.5	8.4	6.9	3.0
Portugal	-6.1	-3.1	-0.4	-1.5
Romania	1.7	12.7	3.5	1.7
Slovenia	-	-	-	-
Slovakia	-	-	-	-
Finland	2.1	1.1	-0.5	-1.4
Sweden	3.0	-0.7	-1.3	-1.1
United Kingdom	-0.7	-0.6	-1.2	-0.6

Source: Eurostat⁶³

⁶³ <http://ec.europa.eu/eurostat/documents/3433488/5585612/KS-SF-13-001-EN.PDF/f68ec994-79d3-43f2-a7a9-787b73fdfe7e>

Figure 17 - Energy intensity of the economy – Gross domestic consumption of energy divided by GDP (chain-linked volumes – reference year 2005) – kilogram of oil equivalent (kgoe) per 1000 euros – 2002, 2012



Source: Eurostat

Table 11. Real Labour Productivity

	(thousand EUR per person employed)			(EUR per hour worked)		
	2005	2010	2015	2005	2010	2015
EU-28	49.7	51.0	52.9	29.6	30.9	32.5
Euro area (EA-19)	55.7	57.2	59.0	34.4	35.9	37.8
Belgium	71.5	73.0	74.7	45.6	47.2	47.6
Bulgaria	7.8	9.1	10.0	4.7	5.5	6.1
Czech Republic	25.3	28.0	29.6	13.9	15.6	16.9
Denmark	75.2	75.5	76.5	51.0	52.6	52.6
Germany	55.3	56.6	58.2	39.2	40.7	42.5
Estonia	21.0	23.5	24.2	10.5	12.5	13.0
Ireland (*)	73.2	80.7	104.4	38.9	44.8	60.0
Greece	44.1	42.4	41.3	20.6	21.0	20.2
Spain	47.0	50.4	53.5	27.2	29.5	31.6
France	65.4	67.0	68.8	43.4	44.8	46.9
Croatia	24.8	22.6	23.3	.	11.6	12.7
Italy	59.7	58.3	57.2	32.9	32.8	33.2
Cyprus	42.1	43.4	43.8	22.8	23.4	24.4
Latvia	16.3	18.8	21.1	8.6	9.7	11.1
Lithuania	16.7	20.2	22.5	8.9	10.7	12.1
Luxembourg	102.5	99.3	100.4	65.9	65.3	66.6
Hungary (*)	20.2	20.8	20.9	10.1	11.7	12.0
Malta	.	.	.	.	.	.
Netherlands	63.3	64.7	67.5	44.1	45.5	47.5
Austria	63.4	63.9	64.5	35.9	38.3	40.1
Poland (*)	18.0	20.7	23.1	8.6	10.1	11.3
Portugal	30.1	32.5	33.4	15.9	17.2	17.9
Romania (*)	10.5	12.4	14.8	5.7	6.6	8.1
Slovenia	31.0	32.8	34.6	18.3	19.5	20.5
Slovakia	22.7	28.3	30.2	12.8	15.7	17.2
Finland	65.1	65.9	64.5	38.4	39.5	39.3
Sweden	69.0	72.1	74.7	43.0	44.1	46.3
United Kingdom	56.0	56.4	57.9	33.5	34.6	34.9
Norway	118.3	111.2	113.1	82.8	78.0	79.6
Switzerland	90.3	92.9	92.0	54.2	57.1	58.7
FYR of Macedonia	8.6	8.9	8.7	.	.	.

(*) Based on chain linked volumes, index 2010 = 100.

(*) 2011: break in series.

(*) Per hour worked, 2010: break in series.

(*) 2010: break in series.

(*) 2012: break in series.

Source : Eurostat⁶⁴

⁶⁴ [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real_labour_productivity,_2005,_2010_and_2015_\(%C2%B9\)_YB16.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Real_labour_productivity,_2005,_2010_and_2015_(%C2%B9)_YB16.png)

Annexe 2 List of Interviews

	Name	Trade union federation	Date
1.	Gabriel Stanescu	SN Petrom Energie	May 2016
2.	Arpat Suba	FLSI Metal	May 2016
3.	Gheorghe Sora	FNS Solidaritatea Metal	May 2016
4.	Doru Lascu	Confpeltex	May 2016
5.	Aurariu Nicolae	FS Hidroelectrica	May 2016
6.	Dan Nastase	UNICONF	May 2016
7.	Gheorghe Miloiu	FS Gaz	May 2016
8.	Catalin Musoi	FS Gaz	May 2016
9.	Danut Onica	FSS Metarom	May 2016
10.	Bezman GHeorghe	FSS Metarom	May 2016

Annex 3 Sectors and regional specifics⁶⁵

Even if the detailed analysis of the sectors and economic activities covered by the trade union federations, members of IndustryAll and EFFAT in Romania is beyond the remit of this report and is documented well elsewhere, some key features are presented here.

	Industrial Developments	Social Dialogue
Metal	<p>There is a deficit of people to work in the industry; the average age in some companies is very high. But there are also workplaces that prepare very quickly new workers. Now after many years where the industry was considered without future attitudes are changing. Older workers are not sufficiently used to teach young recruits. The problem is that companies have not hired and invested in people for long periods of time, so human capital and skills could be lost.</p> <p>Foreign investors create a lot of new jobs, unemployment in Romania is low, but those jobs are not well paid. Some foreign managers quickly learn the habits of local managers and employers.</p> <p>There are some clusters and zones developing well – e.g. Bucharest, Transilvania. Some of the measures to attract investors have just temporary effect; the companies can stay few years and go away.</p>	<p>The trade union density is diminishing compared to 5-6 years before. Collective bargaining is really difficult in the new conditions. There are subsidiaries of MNC with anti-union behaviour. The trade union can't go inside multinational companies and unionize the workers. There are however some companies with more socially responsible behaviour, that tolerate unions.</p> <p>Some discussion about mergers of federations are going on. There are tripartite consultations about legislative changes and trade union participate in them. However unions do not participate in real debates about the future of the industry. It will be very useful to launch such debates with policy makers and employers'. Trade unions lack resources, problems of funding, experts.</p>
Light industry - Clothing and Textile, Leather	<p>No strength of this industry, according to trade unions, but there are several weaknesses. The increase of the minimal wage could be problematic for the competitiveness of this sector. Between 80% and 95% of the industry provides labour intensive services for foreign brands. The employer is transferring the pressure for low costs to the workforce. The brands do not want to take for them the price increases that could lead to wage increases. There is lack of qualified labour because of the low wages.</p>	

⁶⁵ This part will be further completed with relevant information after the January 2017 meeting in Bucharest.

	<p>The workforce is ageing, mainly 50+. Actually there are no good examples from Romania, but the respondents provides good example from Bulgaria, company with EUR 455. There is no industrial policy.</p> <p>According to existent analysis⁶⁶, the sectors, these sectors face strong international competition, production and exports are decreasing. But still it has serious contribution to exports and strong manufacturing traditions. These sectors can have a future but need further specialization.</p>	
Energy sector	<p>The strength would be the nature in Romania: because for the energy sector and the hydroenergy sector the Romanian nature has potential to produce electric power using water and it has been heavily capitalized. There are opportunities to cover the domestic needs.</p> <p>Part of the companies have good potential but are poorly managed. There is lack of strategy in the energy sector.</p> <p>If there were smart policy makers and managers Romania could be a market leader in the region.</p>	
Oil and gas sector	<p>The gas consumption in Romania is decreasing, because of the decrease of the industrial activity.</p> <p>The country is already independent form Russian gas supply.</p> <p>There are gas reserves in the Black Sea and they will be exploited.</p> <p>The gas companies have been modernised. Large decrease of the personnel took place During the last decade. The outcome of the modernisation is that was companies now are stronger, work according to European standards. There is a clear increase in the safety of the distribution system.</p> <p>The tow largest companies are listed on the stock exchange and record profits. Among the weaknesses should be added that workers are ageing, There is lack of specialized VET schools in the branch. In</p>	<p>Due to the restructuring and modernisation process, trade union have lost 10 000 members during the last decade.</p> <p>In Romania there is legislative void in industrial relations as there is no national collective agreement anymore. In addition, there are no branch agreements in many branches. In the energy sector trade unions have been attempting to conclude branch agreement, all union have been united, however the employers refused to participate in any negotiations. And there is no provision in the legislation that could make them participate in the negotiations, In this perspective the some forms of support from European federations would be appreciated.</p>

⁶⁶ Russu, C. (2013) <http://www.upg-bulletin-se.ro/archive/2013-4/3.Russu.pdf>

	<p>addition, parents do not want for their children to work in this industry.</p> <p>The trade unions evoke recent discussion of employers, e.g. big investors, about the reactivation of VET schools.</p>	
Metal sector	<p>In this sector trade union do not identify any strength of the industry. At present about 35 000 employees work, this is four times less, compared to few years before. This is a result from the privatization process, the fact that the governments had no vision for this sector and that state aids could be provided, because of the EU rules do not allowing State aid. In addition the technologies are outdated</p> <p>In the metal sector there is strong competition from China, Turkey, and Ukraine. If China will receive the statute of free market economy, this will be disastrous for the metallurgy.</p> <p>Employers do not invest in the metal industry. Because of EU level decision Europe is turning to be consumer, not producer of metal and the number of the employees is decreasing.</p>	<p>Trade unions express their discontent about the amendments in the labour and social dialogue legislation turning them into “slaves in our own country”.</p> <p>The evaluate positively the fact that they can make use of European directives on information and consultation of the on employees’ representatives.</p> <p>According to respondents, in 2011 the anti-union experiment of Thatcher was applied to trade unions in South-Eastern Europe.</p> <p>There are meetings between trade unions and subsidiaries of MNC related to various industrial policy issues. They are powerful financially and the social problems raised by the trade unions are largely solved by the management directly, however they tackle such problems only if there are already legal stipulations.</p>
General	<p>There is high emigration, young people are not ready to work for low wages, in many industrial companies there is high turnover.</p> <p>However there are many employees afraid for their jobs and ready to work for low wages.</p>	<p>Trade unions have to make compromises, as they used to make in other areas (e.g. environment standards), if not some companies will bankrupt.</p> <p>At branch level trade unions have problems to obtain the representativeness status. Employers are not interested in some cases to be representative. So in this case unions do not have partners.</p> <p>CLA are concluded mainly at company level.</p> <p>There are some debates at sectoral level, within the sectoral councils, e.g. about training, VET, etc. But the main problem is related to the low wages.</p> <p>At national level unions are consulted, but there is no long term vision, so it is difficult for them to influence governments.</p> <p>The impression of the respondents is that a small percentage of all</p>

		<p>discussions and debates lead to concrete results.</p> <p>In some sectors unions contributed to the design of ‘theoretical documents’, without any practical value.</p> <p>Trade union share that the only thing that can force domestic politicians are actions at the EU level.</p> <p>MNC fear mainly media in Western countries.</p> <p>Some strategic documents, such as the new Energy strategy of Romania, involved many experts, but trade unions have not been consulted.</p> <p>There are consultations where the draft of the documents is uploaded at the web sites of the respective ministries and the deadline for submitting opinions if very short, e.g. 10 days.</p>
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