

Stairway to Excellence

Cohesion Policy and the Synergies with the
Research and Innovation Funds

Romania (RO)

Facts & Figures



July 2015

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Please include the following information to reference this report:

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Introduction

Background of Stairway to excellence project

The European Commission Framework Programme (FP) for research and technology development has been vital in the development of European knowledge generation. However, there is considerable disparity across EU countries and regions in terms of FP participation and innovation performance.

Horizon 2020 will continue to provide funding on the basis of excellence, regardless of geographical location. However, it will also introduce novel measures for "spreading excellence and widening participation" by targeting low Research & Innovation (R&I) performing countries - most of whom are eligible for innovation funding under Cohesion Policy for the period 2014-2020.

In addition, the new regulations for ESIF aim to use funds more effectively to build regional/national excellence and capacities. By doing so, the two funding sources (ESIF and Horizon 2020) can complement one another along the entire innovation process.

Objectives of S2E

The Stairway to Excellence (S2E) project (<http://s3platform.jrc.ec.europa.eu/stairway-to-excellence>) is centred on the provision of support to enhance the value of two key European Union (EU) funding sources for research, development and innovation (ESIF and H2020) by actively promoting their combination. The project has two main objectives, namely:

- Providing of assistance to regions and countries that joined the EU since 2004 in closing the innovation gap, in order to promote excellence in all regions and EU countries;
- Stimulating the early and effective implementation of national and regional Smart Specialisation Strategies.

Main purpose of the document

The main aim of this document is to draw the European profile of a territory (region or country) with statistical and financial information coming from the EU 7th framework programme and Structural funds dedicated to Research and innovation during the previous financial period (2007-2013). Other information is used in support of this aim. The document is guided by the following questions:

- What is the overall position of the territory in terms of FP7 budget captured and Structural funds dedicated to R&I managed at regional level?
- What are the specialisation areas emerging from FP7 participation? Are they corresponding with areas chosen in the smart specialisation strategy (S3)?
- What are the main R&I stakeholders involved in EU programmes? Are there any regional/ national specificities in terms of participation in EU programmes?
- What are the main European collaboration axes of the territory in the EU framework programme?

The document provides to national authorities and the European Commission with relevant and useful information to facilitate the creation of synergies between structural funds dedicated to research and innovation and the Horizon 2020 programme.

The document is divided in four sections: (1) the keys messages coming from the direct interpretation of tables and figures provided in the following sections, (2) the main characteristics of the territory, (3) the specialisation areas, and (4) the Characterization of organisations participating in the FP with the identification of the key players and the main European organisations collaborating with the territory.

Complementarity with other analysis

This document contains key messages only based on the presented quantitative indicators. This "facts and figures" document provides as full a picture as possible of how and where European funding dedicated to R&I is spent in EU13 territories. Within the wider context of the Stairway to excellence project this work complements other analyses to give further insights into R&I funding in EU13 and related issues. Such complementary work includes:

- National profiles based on the input of country experts giving an updated picture of the strategy and governance at the national level.
- Knowledge flow analysis including the use of various types of indicators such as patents, bibliometrics, and FP/H2020 participations.
- Case studies giving examples of success stories of existing synergies between ESIF and other types of funding from across Europe.

The document will also provide background and context to workshops and meetings organised at the national and regional levels.

Source of information

The regional macro-economic indicators are provided by Eurostat. Regional specialisation areas and structural closeness are extracted from the S3 platform. The FP7 related information comes from the last updated FP7 contracts database (June 2014) provided by DG RTD J5. The information about Structural Funds is provided by DG REGIO database.

Disclaimer

This document aims to give an instantaneous picture about the expenditure of EU funding at NUTS2 level but it is NOT a monitoring report. Some gaps may occur in indicators without calling into account the key messages provided at the beginning of the document.

1. Key messages

Overall economic performance of the country by comparing macro-economic indicators, FP7 and Structural Funds indicators

- The level of R&D expenditure based on GDP in Romania (0.39%) is less than half that of the EU13 average (1.05%) and substantially lower than the EU15 countries (2.09%). R&D expenditure is primarily concentrated in the Government Sector and the Business Enterprise Sector (Table 1).
- The Bucharest region takes the largest proportion of FP7 funding (54.4% of the total FP funding received by Romania). In terms of Structural Funds, the majority are assigned to the national level (76.1%) rather than allocated to regions (Table 2).
- As is the case for many of the EU13 countries, Romania did not quite manage to maintain its funding share from FP6 in FP7. Overall the EU13 countries are even lower than the countries associated to FP7 (Figure 1).
- In FP7, Romania accounts for 1 049 participations and 60 project coordinations. The FP7 financial contribution per inhabitant (6.4 €/inhabitant) is lower than the EU13 average (17.8 €/inhabitant) and is far below the EU15 average (95.2 €/inhabitant) (Table 3).

EU funding allocation

- The largest FP7 financial contribution to Romania is from the Cooperation Specific Programme (the thematic part of FP7) and the share of the Cooperation Specific Programme is almost the same as in FP7, which is often not the case for EU13 countries. Nevertheless, as in other EU13 countries we can observe a bias towards the Capacities Specific Programme (SME Measures, Research Infrastructures Initiatives) specific programme as it accounts for around 27.1% of their contribution but only accounts for 8.5% of FP7 (Table 4 & Figure 2). The same bias occurs to a lesser extent for EURATOM programme. In terms of FP7 funding instruments, it appears that Romanian organisations have had a slight preference for Coordination and Support Actions, Infrastructure Initiatives and SME measures (Figure 3 & table 5).
- For the 2007-2013 programming period, Structural funds dedicated to Research and Innovation are managed at national level through two Operational Programmes (Regional OP and Increase of Economic Competitiveness OP). The absorption rate both OPs are fairly low, 77.3% and 85.1% respectively. There are large disparities (in funding and absorption rate) among priority themes (Table 7). All the funding related to the Increase of Economic Competitiveness OP and Human Resources OP is allocated at the national level (Table 8).

Specialisation areas

- Romania has designed its S3 strategy at the national level (with Bucharest and Vest also having developed strategies). The eight specialisation areas (including big data and ICT, space and security, education and culture, energy efficiency and water resources, energy efficiency of motor vehicles and other transport, food and forestry, public sector service innovation, and services) chosen by Romania are partially aligned with specialisation information observed from the Romanian participation in FP7. About 63% of the FP7 funding received by the country can be estimated as being aligned to Romanian specialisation areas chosen in the S3 (Tables 9 & 10).
- Participants have shown stronger interest in FP7 priorities linked to Nanosciences & Nanotechnologies, Materials, New Production Technologies, Integration of Nanotechnology in Industry, Environment, Aeronautics, Space Waterborne, Urban Transport, Socio-economic Sciences and Humanities, and Security as they account, to varying degrees, for a greater proportion of Romania's funding than FP7 overall. However, the most funding for Romania comes from ICT (27.3%) and this is only slightly less than the proportion for FP7 (28.5%). (Figure 4, Tables 11).

Beneficiaries profile including SME participation

- Romania differs, to a greater or lesser extent, from the average FP7 profile in terms of distribution of funding among the participants categories. The largest proportion of the FP7 funding is received by Private Commercial Organisations, at 30.9% this is more than the FP7 average (24.7%), closely followed by Research Organisations with 30.7% (26.9% for FP7). The Higher or Secondary Education sector represents proportionally less for Romania than is the case for FP7 (29.8% versus 43.5%) (Table 12 & Figure 5).
- The financial contribution to Romanian SMEs is proportionally much larger than FP7. Romania accounts for 134 participations of SMEs in the FP7 thematic programme (20.8% of the Romanian total), representing 24.3% of the

EC budget for thematic programme open to all type of Romanian participants. Romanian SMEs are especially involved in the ICT theme with 23 participations (Table 13 & Figure 6).

- The overall success rate for Romania (13.2%) is lower than the average FP7 success rate (20.4%). The Romanian success rate is only higher in the Research infrastructures initiatives (Table 14).

Main collaboration axis between Romania and other European countries

- The EU regions that Romanian organisations collaborated with the most in FP7 are in France (Paris area), Italy (Roma area), Spain (Madrid area and Catalonia), Greece (Athens area), Austria (Wien area), and Belgium (Brussels) (Table 15 & Figure 7).
- Romanian participation in FP7 is organised around all four categories of participant; structured into three distinct groups. Network analysis shows that Romanian Private Firms (PRCs) appear strongly linked to PRCs in other EU and Associated countries. Similarly Romanian Public Research Organisations (RECs) link to other RECs, there are also Public Bodies in this group including those from Romania. Organisations from the Romanian Higher Education Sector (HES) are also in a group predominately consisting of their counterparts in other countries; however, there also appears to be substantial links to PRCs from outside Romania (Figure 8).

2. Main country characteristics

2.1 General macro-economic indicators

Table 1 demonstrates some selected macro-economic variables appertaining to the research and development activities, including the R&D expenditure and number of full time equivalent research personnel by different sectors. While the significant gap between EU15 and EU13 Member States is observable in this table, it also provides a general understanding on the position of the MS in the European context.

Table 1: General macro-economic indicators of the region in 2013

	Romania	EU13*	EU15	EU28
Population	20 020 074	105 127 027	401 484 800	506 611 827
GDP - Euro per capita	7 100	10 417	29 800	25 700
GDP - Euro per capita in % of EU average	27.5	40.5	115.3	100
R&D expenditure – Total (million Euro)	557.77	11 521.81	260 036.97	271 558.78
R&D expenditure – Total [% of GDP]	0.39	1.05	2.09	2.01
R&D expenditure - Business Enterprise Sector (BES) [% of GDP]	0.12	0.54	1.34	1.28
R&D expenditure - Government Sector (GOV) [% of GDP]	0.19	0.23	0.25	0.25
R&D expenditure - Higher Education Sector (HES) [% of GDP]	0.08	0.27	0.49	0.47
R&D expenditure - Private non-Profit Sector (PnP) [% of GDP]	0	0.004	0.02	0.02
R&D Personnel** – Total (% of active population)	0.34	0.62	1.25	1.12
R&D Personnel – BES (% of active population)	0.11	0.25	0.69	0.60
R&D Personnel – GOV (% of active population)	0.12	0.15	0.15	0.15
R&D Personnel – HES (% of active population)	0.10	0.22	0.39	0.36
R&D Personnel – PnP (% of active population)	0	0.002	0.01	0.01
Unemployment Rate***	7.3	9.9	9.50	9.60

Source: Compiled and calculated by using Eurostat 2013

* As EU13 indicators are not available in the data sources, the values are calculated over national statistics provided by Eurostat 2013.

** R&D personnel refer to the number of full time equivalent R&D personnel.

***Unemployment uses latest available figures for 2013 age group 15 years and over.

2.2 Main EU funding targeting Research and Innovation received by the country

2.2.1 Breakdown of the main EU funding received

The data in **Table 2** is for FP7 and the Structural Funds 2007-2013. The FP7 data represents the total EU contribution to projects for each NUTS2 region in Romania. The information is from the contract database for FP7 and it represents funding to beneficiaries in the regions for projects that have been successfully evaluated. The table is ranked by the first region being the one with the largest contribution from FP7.

The data on structural funds is from the Annual Implementation Report (AIR)¹ for 2013 and represents the EU support allocated to selected projects. The values presented in Table 1 are only for priority themes that represent research and technological development, innovation and entrepreneurship (categories 1-9) and category 74 "Developing human potential in the field of research and innovation" as described in the Official Journal². Hereafter categories 1-9 and 74 are collectively known as research and

¹ The Annual Implementation Reports are progress reports produced by the Structural Fund managing authority they monitor information on (1) allocations decided, (2) amounts allocated to projects and (3) the core indicators used for ERDF and Cohesion Fund.

² See Annex IV in Council Regulation (EC) No 1083/2006 available at <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32006R1083&from=EN>

technological development, and innovation (RTDI). It should be noted that these values do not represent the funding available, only the total allocated to projects at the time of the 2013 AIR and NUTS3 allocations were aggregated to NUTS2.

It is notable that more than 75% of the Structural Funds allocated to projects were managed at the national level rather than the regional level.

Table 2: Regional breakdown of FP7 and Structural funds EU Contribution received by the country

NUTS2 Region	FP7 EU Contribution (€M)	% of the national total	FP7 EU contribution per capita (in €/inhab)	Structural funds (€M)	% of the national total	Structural funds dedicated to RTDI per capita (in €/inhab)
Nord-Vest - RO11	15.5	11.4%	5.72	74.8	4.0%	27.5
Centru - RO12	5.5	4.0%	2.17	56.2	3.0%	22.3
Nord-Est - RO21	16.5	12.1%	4.44	61.8	3.3%	16.6
Sud-Est - RO22	5.0	3.6%	1.77	42.5	2.3%	15.1
Sud - Muntenia - RO31	5.4	3.9%	1.64	76.3	4.1%	23.4
Bucureşti - Ilfov - RO32	74.3	54.4%	32.55	37.2	2.0%	16.4
Sud-Vest Oltenia - RO41	5.0	3.7%	2.24	47.8	2.6%	21.3
Vest - RO42	9.4	6.9%	4.89	49.8	2.7%	25.9
Romania - RO				1717.3	79.3%	
Total	136.6	100%		2163.7	100%	100.8

Source: EC FP7 contract database June 2014 and Annual Implementation Report (AIR) for 2013

2.2.2 Romania in the FP7³

This section presents how the country participated in the FP7 by comparison with the EU13, the EU15 and FP7 in

- The EU FP7 budget captured (also per inhabitant), the number of participation and coordination (**Table 3**), by the yearly trend of EU FP7 budget received since the FP6 (**Figure 1**).
- The breakdown between FP7 specific programmes (**Figure 2** and **Table 4**) and funding instruments (comparison only with the FP7) (**Figure 3** and **Table 5**).

Table 3: General FP7 indicators (Source: EC FP7 contract database June 2014)

	Romania (% of FP7)	EU13 (% of FP7)	EU15 (% of FP7)	FP7 ⁴
EU Contribution (in M€)	136.6 (0.31%)	1 883.6 (4.2%)	37 852.2 (85.3%)	44 364.1
Number of participations	1 049 (0.79%)	10 637 (8.0%)	105 731	132 382
Number of coordinations	60 (0.24%)	1 011 (4.0%)	20 301	25 052
EU Contribution per inhabitant (in €)	6.4	17.8	95.2	78.9 (EU28)

Source: JRC/IPTS calculated using the EU FP7 contract database June 2014

The following graph shows the evolution of the share of FP7 budget for the 15 "old" members States (EU15), the 13 "new" member States, the associated countries and the country under consideration. The

³ The "Headquarter effect" in the FP7 contract database can be an important issue for Regions (especially in the most centralized countries). If available, the location of a research department has been used as the "true" location if this differs from the headquarter location.

⁴ EU28 and associated countries

share of budget from FP6 is considered as the reference (Base 100). The graph shows the share of cumulated funding by year for each of these categories. Therefore, the year 2014 represents the total share of budget taken in the FP7.

Figure 1: Evolution of the Share of EU FP contribution received between 2006 and 2014 (EU FP6 budget share taken as base 100)

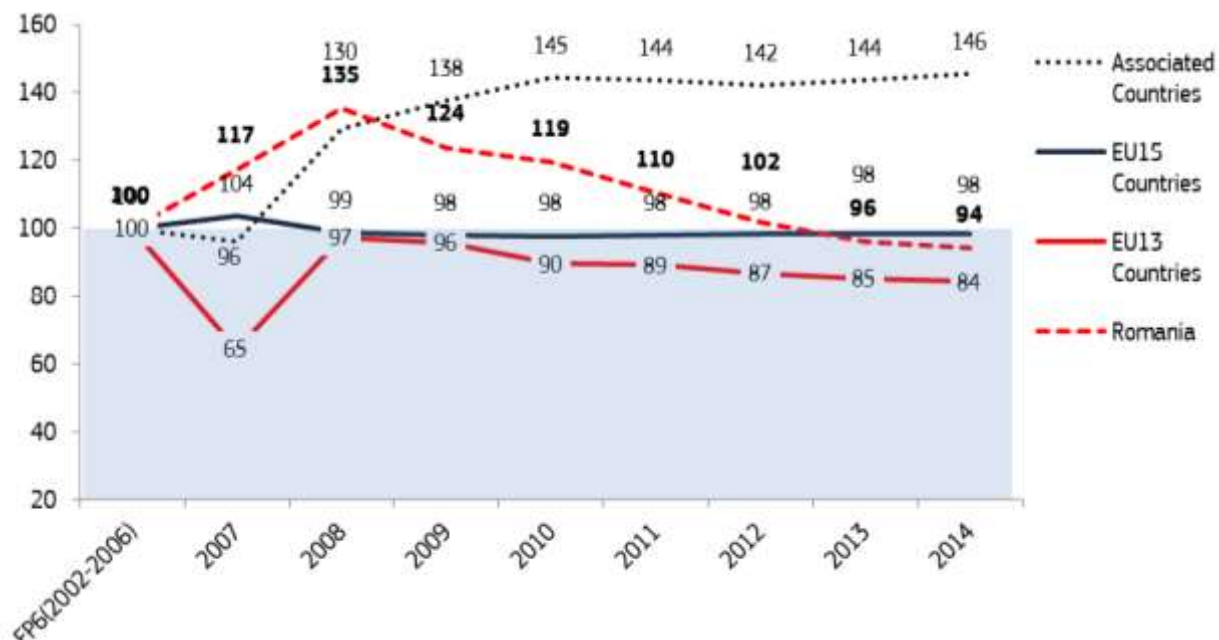


Figure 2 and Table 4 below show the difference between national profile and FP7 specific programmes where the FP7 breakdown is taken as reference.

Figure 2: Comparison of the EU Contribution breakdown among FP7

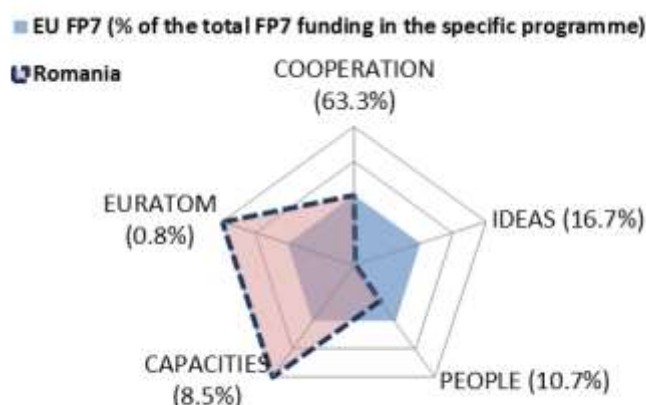


Table 4: Breakdown of the FP7 EU Contribution among specific programmes

	% of EU Contribution	
	Romania	FP7
COOPERATION	63.7%	63.3%
IDEAS	0.3%	16.7%
PEOPLE	6.9%	10.7%
CAPACITIES	27.1%	8.5%
EURATOM	2.1%	0.8%
	100%	100%

Source: JRC/IPTS calculated using the EC FP7 contract database June 2014

Figure 3: Comparison of funded participations breakdown among FP7 funding instruments

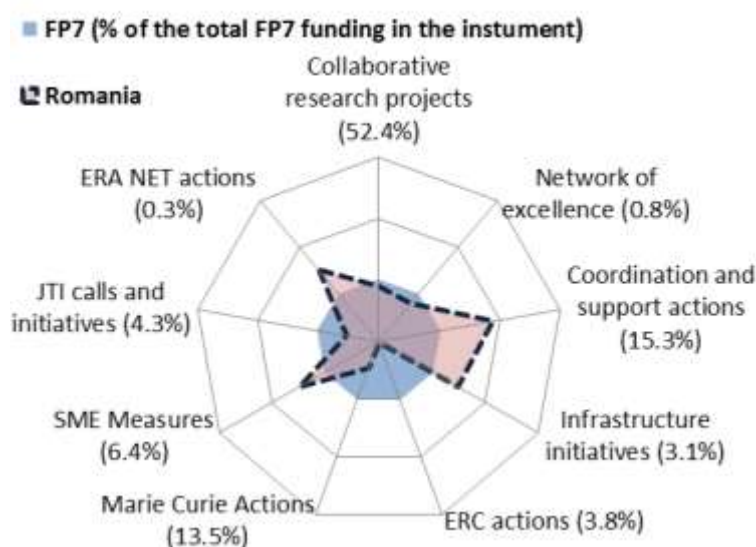


Table 5: Breakdown of the participations among FP7 funding instruments

	% of EU Contribution	
	Romania	FP7
Collaborative research projects	47.0%	52.4%
Network of excellence	0.7%	0.8%
Coordination and support actions	28.9%	15.3%
Infrastructure initiatives	4.7%	3.1%
ERC actions	0.1%	3.8%
Marie Curie Actions	6.3%	13.5%
SME Measures	9.6%	6.4%
JTI calls and initiatives	2.3%	4.3%
ERA NET actions	0.4%	0.3%
TOTAL	100%	100%

Source: JRC/IPTS calculated using the EC FP7 contract database June 2014

2.2.3 Structural funds dedicated to Research and innovation in the country

Table 6 shows the estimated funds for the Romania Operational Programmes and also shows that dedicated to the priority themes identified as research and technological development, innovation and entrepreneurship (RTDI). The absorption rate is based on the proportion of the dedicated funding that has been allocated to projects as reported in the 2013 Annual Implementation Reports (AIR).

Table 6: Funding estimated in the OP, allocated to projects and absorption rate for all Romania national and regional OPs 2001-2013

Operational Programmes 2007-2013	Fund ⁵	Estimate in Adopted OP(s)		AIR 2013		Absorption %	
		ME All	ME RTDI	ME All	ME RTDI	All	RTDI
Regional OP	ERDF	3 966.0	577.4	4 152.8	446.4	104.7%	77.3%
Sectoral OP Increase of Economic Competitiveness	ERDF	2 536.6	1 673.8	2 415.3	1 425.0	95.2%	85.1%
Sectoral OP Transport	ERDF & CF	4 288.1	-	4 288.1	-	100%	-
Sectoral OP Environment	ERDF & CF	4 412.5	-	5 285.1	-	119.8%	-
Technical Assistance	ERDF	170.2	-	145.7	-	85.6%	-
Total ERDF and CF		15 373.5	2 251.2	16 287.0	18 71.3	105.9%	83.1%
Sectoral OP Human Resources Development	ESF	3 476.1	284.9	2 841.2	292.4	81.7%	102.6%
Administrative Capacity Development	ESF	208.0	-	246.9	-	118.7%	-
Total ESF		3 684.1	284.9	3 088.2	292.4	83.8%	102.6%
Overall Total		19 057.7	2 536.1	19 375.1	2 163.7	101.7%	85.3%

Source: JRC/IPTS calculated from the Operational Programme and funding allocated to projects in AIR 2013

Table 7 shows the funding adopted estimated in the OP, allocated to projects and absorption for the Romania national operational programmes that address RTDI priority themes. Only those priority themes that actually have funds attributed to them are shown in the table. There are ten priority themes

⁵ ERDF = European Regional Development Fund, ESF = European Social Fund, CF = Cohesion Fund

identified as RTDI:

1. R&TD activities in research centres
2. R&TD infrastructure and centres of competence in a specific technology
3. Technology transfer and improvement of cooperation networks
4. Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)
5. Advanced support services for firms and groups of firms
6. Assistance to SMEs for the promotion of environmentally-friendly products and production processes
7. Investment in firms directly linked to research and innovation
8. Other investment in firms
9. Other measures to stimulate research and innovation and entrepreneurship in SMEs
74. Developing human potential in the field of research and innovation, in particular through post-graduate studies.

Table 7: Funding estimated in the OP, allocated to projects and absorption for two Romanian national OPs by priority theme

Priority code	Regional Operational Programme			Increase of Economic Competitiveness			Human Resources Development		
	Estimate Adopted OP	AIR 2013	Absorb.	Estimate Adopted OP	AIR 2013	Absorb.	Estimate Adopted OP	AIR 2013	Absorb.
	M€	M€	%	M€	M€	%			
1				74.6	47.4	63.5%			
2				358.9	471.6	131.4%			
3				59.0	0.0	0.0			
4				27.5	17.4	63.3%			
5				168.1	0.0	0.0			
6	63.3	0.0	0.00%	49.4	396.4	802.4%			
7				54.4	168.5	310.0%			
8	504.1	446.4	88.56%	739.7	230.1	31.1%			
9	10.0	0.0	0.00%	142.2	93.4	65.7%			
74							284.9	292.4	102.6 %
Total RTDI	577.4	446.4	77.3%	1 673.8	1 425.0	85.1%			

Source: JRC/IPTS calculated from the Operational Programme and funding allocated to projects in AIR 2013

Table 8 shows the funding associated with RTDI that has been allocated to projects as reported in the Annual Implementation Report for 2013. This funding is shown for the Romanian Regional Operational Programme national operational programme that has the region where the funds were allocated. The Sectoral Operational Programme Increase of Economic Competitiveness has RTDI funds dedicated but are not administered at the regional level and so regional attributes are not reported in the AIR 2013.

Table 8: RTDI funding allocated to projects for national OPs showing the national/regional breakdown

	Funding allocated to projects (AIR 2013) for RTDI (M€)		
	Regional OP	Sectoral OP Increase of Economic Competitiveness	Human Resources Development OP
Nord-Vest - R011	74.8		
Centru - R012	56.2		
Nord-Est - R021	61.8		
Sud-Est - R022	42.5		
Sud - Muntenia - R031	76.3		
Bucureşti - Ilfov - R032	37.2		
Sud-Vest Oltenia - R041	47.8		
Vest - R042	49.8		
Romania - RO		1 425.0	292.4
Total	446.4	1 425.0	292.4

Source: JRC/IPTS calculated from the Operational Programme and funding allocated to projects in AIR 2013

3. National specialisation areas

3.1 Specialisation areas chosen in the smart specialisation strategy for the period 2014-2020

The following tables show the specialisation areas chosen by Romania in the design of their smart specialisation strategy. Based on information that regional and national authorities submit to the Eye@RIS3⁶ database the following related information is added:

- the capability for the priority;
- the target market that will be addressed; and
- the EU priority to which this specialisation area connects.

Capability and market categories are based on NACE⁷ sectoral codes. Often these capability and market categories overlap, as is the case in for Romania. Any subcategories were combined with the main category.

Table 9 Specialisation areas chosen in the smart specialisation strategy of Romania

Description of chosen specialisation area	Identified capability	Identified target market	EU priority connected to
Analysis, management and security of big data. Future internet. Software development technologies, instruments and methods. High performance computing and new computational models.	Information & communication technologies (ICT)	Services - Office administrative, office support & other business support activities	Digital Agenda
Development of innovative space and security applications.	Public administration, security & defence	Public administration, security & defence	Aeronautics & space
Education and cultural and creative industries	Services - Education	Creative, cultural arts & entertainment - Libraries, archives, museums & other cultural activities	Cultural & creative industries - Support to link cultural & creative industries with traditional industries
Increasing end-use energy efficiency. Optimizing the use of conventional and non-conventional water resources. Substitution of critical materials and functional covering. intelligent cities.	Energy production & distribution	Energy production & distribution	Sustainable innovation
New-generation vehicles and ecological and energy-efficient technologies. Innovative technologies, equipment and technical systems for the generation of bioresources. Depolluting and waste reuse technologies.	Manufacturing & industry - Motor vehicles & other transport equipments	Manufacturing & industry - Motor vehicles & other transport equipments	Sustainable innovation - Resource efficiency
Safe, accessible, nutritionally optimized food. Sustainable development in forestry.	Manufacturing & industry - Biotechnology	Manufacturing & industry - Food, beverage & tobacco products	KETs - Industrial biotechnology
Service and process innovations for public sector improving the well-being.	Services - Other professional, scientific & technical activities	Human health & social work activities	Public health & security
Services	Public administration, security & defence - Public administration, justice, judicial, public order, fire service & safety activities	Services	Service innovation - New or improved service products (commodities or public services)

Source: S3 web platform <http://s3platform.jrc.ec.europa.eu/eye-ris3>

⁶ <http://s3platform.jrc.ec.europa.eu/eye-ris3>

⁷ http://epp.eurostat.ec.europa.eu/portal/page/portal/nace_rev2/introduction

3.2 Regional & national specialisation indication through the participation in FP7 for the period 2007-2014

In the innovation Union progress report published in 2014⁸, the science and technology classifications were matched with FP7 thematic priorities thereby offering the possibility of further analysis of co-developments of science and technologies at the EU and national level. We choose here to follow the same taxonomy in order to offer the reader the possibility to compare easily specialisation information provided by the IU progress report and those provided in this report.

The following table shows the participation breakdown by EU Contribution among research areas. Correspondence with specialisation areas chosen by the region and countries in their Smart Specialisation strategy is shown in the last column according to JRC-IPTS interpretation. Some specialisation areas chosen by the region or country can be too generic or on the contrary too specific with regard to the taxonomy used. In this case, we consider the research area not being fully covered by S3 strategy.

- yes = Research area fully included into S3 priority definition;
- yes partially= Research area only partially included into S3 priority definition (S3 priority definition do not cover the full scope the research area).

Table 10 General assessment of the participation of the country in the FP7 themes and activities and correspondence with specialisation areas of S3

Research area	EU Contribution (in M€)	S3 Priority
Food, Agriculture and Fisheries	3.50	yes partially
Biotechnology	1.65	
Health	7.41	
Information & communication technologies (ICT)	23.63	yes partially
Nanosciences & Nanotechnologies	3.04	
Materials	3.60	
New production technologies (incl. Construction technologies)	5.17	
Integration of nanotechnologies for industrial applications (JTI ENIAC Incl.)	3.61	
Energy	1.97	yes partially
Environment	9.39	yes partially
Aeronautics	7.16	
Space	2.56	yes partially
Automotive	0.59	yes partially
Rail	0.46	yes partially
Waterborne	1.45	yes partially
Urban transport and intermodalities	4.73	yes partially
Socio economic sciences and humanities	2.21	yes partially
Security	4.35	yes partially
TOTAL Cooperation programme	86.46	
TOTAL Cooperation programme related to S3 priorities	54.83 (63.4%)	

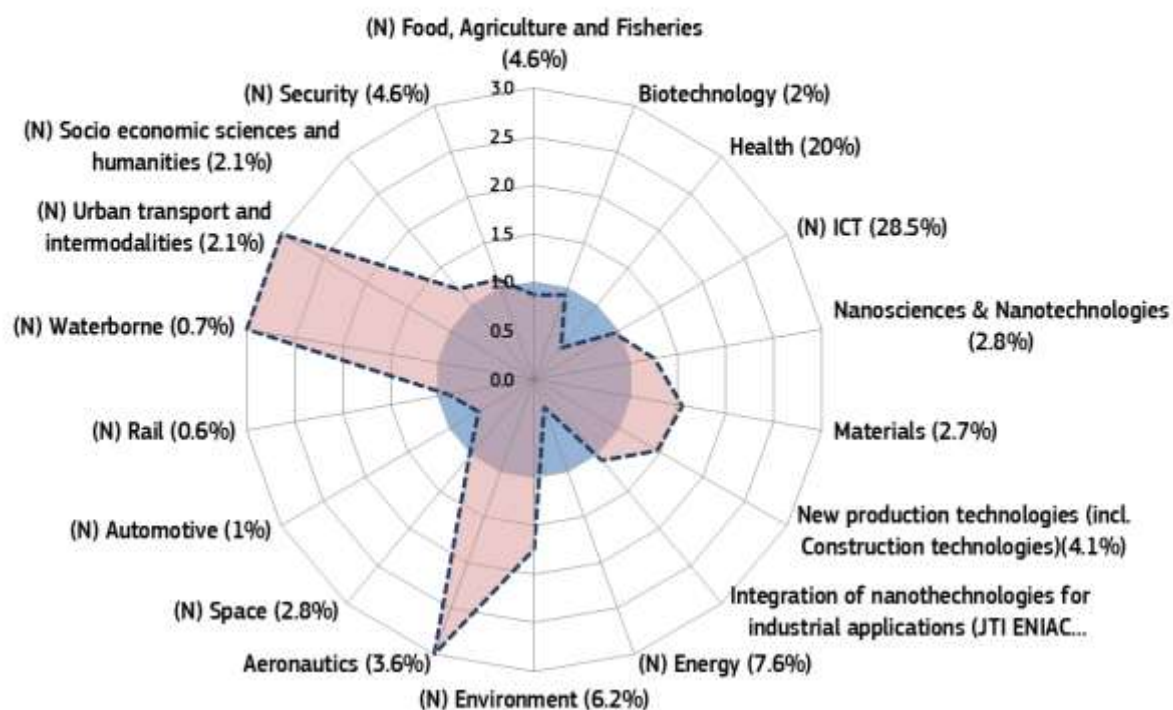
Source: data: FP7 contracts database-June 2014, processed by JRC-IPTS

⁸ http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2014/iuc_progress_report_2014.pdf#view=fit&pagemode=none

FP7 participations can be analysed with regard to specialisation indicators provided with bibliometric and patents indicators provided in the Innovation Union progress report (only) at national level.

Figure 4 S&T specialisation areas according to the EU Contribution received by FP7 participants

■ Framework programme 7 (% of FP7 budget dedicated to cooperation programme in the area) (N): National smart specialisation area chosen
 🇷🇴 Romania



Source: data: FP7 contracts database-June 2014, processed by JRC-IPTS

Table 11 Budget breakdown among themes (Figure 4 is only the graphical interpretation of this table)

Research area	Romania	FP7
Food, Agriculture and Fisheries	4.0%	4.6%
Biotechnology	1.9%	2.0%
Health	8.6%	20.0%
ICT	27.3%	28.5%
Nanosciences & Nanotechnologies	3.5%	2.8%
Materials	4.2%	2.7%
New production technologies (incl. Construction technologies)	6.0%	4.1%
Integration of nanotechno. for industrial applications	4.2%	3.9%
Energy	2.3%	7.6%
Environment	10.9%	6.2%
Aeronautics	8.3%	3.6%
Space	3.0%	2.8%
Automotive	0.7%	1.0%
Rail	0.5%	0.6%
Waterborne	1.7%	0.7%
Urban transport and intermod.	5.5%	2.1%
Socio economic sci and humanity	2.6%	2.1%
Security	5.0%	4.6%
Total Cooperation programme	100%	100%

Source: IPTS/JRC calculated using the FP7 contracts database-June 2014

4. EU funding users profile

4.1 FP7 beneficiaries profile

4.1.1 Participation profile by type of activity

Figure 5 shows graphically the difference between national (in dark blue) and regional (red line) participation profile by type of participant with the FP7 breakdown taken as the reference (in Base 100). We observe the difference in the distribution at country level and at regional level. **Table 12** complements the figure comparing the breakdown of FP7 contribution among the participant typology for the country and the whole FP7 participants.

Figure 5: Comparison of the EU Contribution breakdown by type of participant between FP7 profile (in base 100), national profile and regional profile

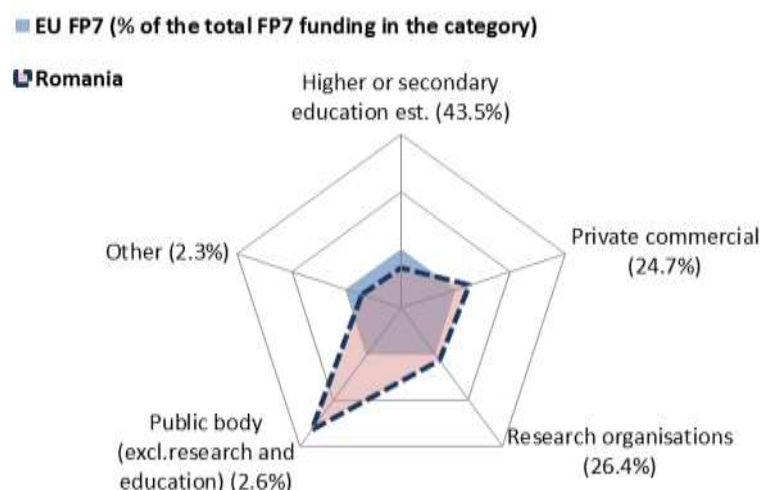


Table 12: Breakdown of the FP7 EU Contribution

	% of EU Contribution	
	Romania	FP7
Higher or secondary education est.	29.8%	43.5%
Private commercial	30.9%	24.7%
Research organisations	30.7%	26.9%
Public body (excl. research and education)	7.0%	2.6%
Other	1.7%	2.3%
	100%	100%

Source: data: FP7 contracts database-June 2014, processed by JRC-IPTS

FP7 SME Participation

This section shows the participation of SMEs from the country in the FP7 cooperation programme and other activities and compares figures with the national level. **Table 13** provides information about SMEs' participation in the regional research and innovation landscape. The official EU target is 15% of FP7 budget dedicated to the cooperation programme (thematic) should go to SMEs. The country level (i) is compared in budget and in number of participations and coordinations to and to the overall FP7 (column ii).

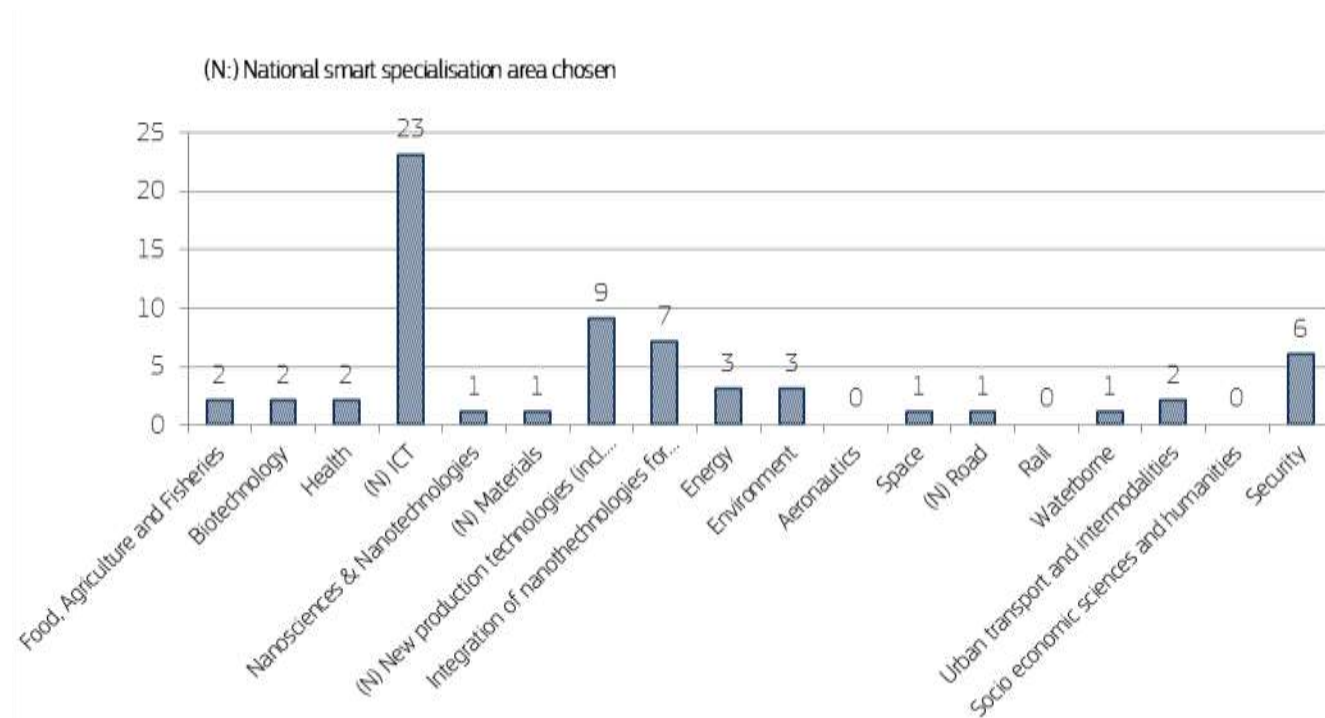
Table 13: General indicators about SME participation in the FP7 Cooperation programme

	Romania (i)	FP7 (ii)
EC Financial Contribution- Cooperation programme	21.12 (24.3%)	2 560.42 (9.1%)
Number of SME participation-Cooperation programme	134 (20.8%)	9483 (10.9%)
Number of SME coordination-Cooperation programme	4 (40%)	555 (7.1%)

Source: data: FP7 contracts database-June 2014. Processed by JRC-IPTS

The participation of Romanian SMEs among the various research areas is shown with **Figure 6**. Information about the chosen national (N) specialisation areas are given to assess the extent to which the research theme participation of SMEs corresponds to the specialisation areas.

Figure 6: Number of SMEs in FP7 research themes for Romania



Source: data: FP7 contracts database-June 2014. Processed by JRC-IPTS

4.1.2 Success rates: Comparison between national and overall FP7 in FP7 themes and activities

The following table shows a comparison of success rates by FP7 themes and activities between national and FP7 level. Information at regional level is not shown because it is not reliable enough to be considered in the analysis.

● : National success rate is above EU average

▼ : National success rate is below EU average

Table 14: Success rates by Themes or activities- Comparison between national and European level

FP7 specific programme	THEMES/ACTIVITIES	Romania			FP7		
		Nbr of Participations*	Nbr of Retained participations*	Success Rate	Nbr of Participations*	Nbr of Retained participations*	Success Rate
COOPERATION	Health	312	53	▼ 17.0%	41 361	10 275	24.8%
COOPERATION	Food, Agriculture, and Biotechnology	468	55	▼ 11.8%	35 362	7 465	21.1%
COOPERATION	Information and Communication Technologies	1 445	115	▼ 8.0%	131 030	21 356	16.3%
COOPERATION	Nanosciences, Nanotechnologies, Materials and new Production Technologies	453	88	▼ 19.4%	35 451	9 354	26.4%
COOPERATION	Energy	228	15	▼ 6.6%	17 415	4 072	23.4%
COOPERATION	Environment (including Climate Change)	470	81	▼ 17.2%	31 912	6 825	21.4%
COOPERATION	Transport (including Aeronautics)	409	87	▼ 21.3%	30 340	8 779	28.9%
COOPERATION	Socio-economic sciences and Humanities	463	29	▼ 6.3%	23 830	2 492	10.5%
COOPERATION	Space	100	22	▼ 22.0%	8 277	2 397	29.0%
COOPERATION	Security	312	33	▼ 10.6%	18 826	3 595	19.1%
COOPERATION	General Activities (Annex IV)	1	1		120	50	41.7%
COOPERATION	Joint Technology Initiatives (Annex IV-SP1)	95	21	▼ 22.1%	15 299	6 277	41.0%
COOPERATION	TOTAL COOPERATION	4 756	600	▼ 12.6%	389 223	82 937	21.3%
IDEAS	European Research Council	592	11	▼ 1.9%	54 789	5 312	9.7%
PEOPLE	Marie-Curie Actions	667	109	▼ 16.3%	111 266	22 530	20.2%
CAPACITIES	Research Infrastructures	113	55	● 48.7%	10 677	4 564	42.7%
CAPACITIES	Research for the benefit of SMEs	731	100	▼ 13.7%	48 493	8 426	17.4%
CAPACITIES	Regions of Knowledge	119	23	19.3%	3 844	746	19.4%
CAPACITIES	Research Potential	128	13	▼ 10.2%	3 107	362	11.7%
CAPACITIES	Science in Society	171	31	▼ 18.1%	7 329	1 961	26.8%
CAPACITIES	Coherent development of research policies	8	1	▼ 12.5%	390	89	22.8%
CAPACITIES	Activities of International Cooperation	57	17	▼ 29.8%	3 908	1 476	37.8%
EURATOM	Fusion Energy	4	2	▼ 50.0%	79	65	82.3%
EURATOM	Nuclear Fission and Radiation Protection	86	38	▼ 44.2%	3 113	1 539	49.4%
FP7	TOTAL	7 432	1 000	▼ 13.5%	636 218	130 007	20.4%

Source: data: FP7 proposals database-Feb 2014. Processed by JRC-IPTS

4.2 FP7 Main collaboration axis and stakeholder analysis

4.2.1 From a territorial perspective

The map below shows the European regions (at NUTS2 level) collaborating the most with Romania in the FP7 thematic activities. **Table 15** shows the list of the first regions collaborating. The figure represents the number of projects where at least one participant from Romania collaborates with at least one participant from the other country.

Figure 7: Origins of organisations collaborating with Romania in FP7

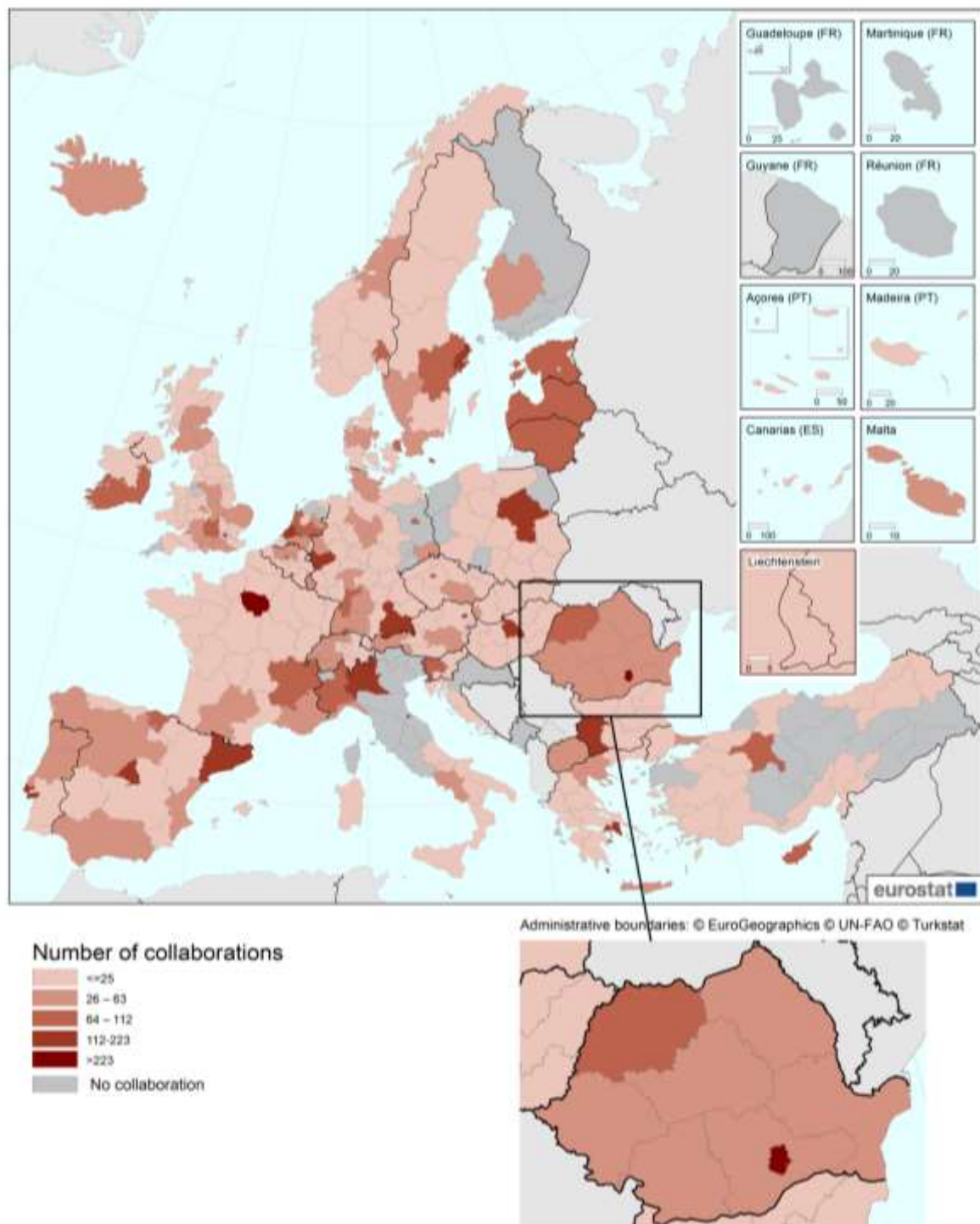


Table 15: The closest EU countries to Romania in the FP7 cooperation programme

Rank	CODE	Country	Nbr of Collaborations
1	FR10	Île de France	328
2	ITE4	Lazio	232
3	ES30	Comunidad de Madrid	223
4	EL30	Attiki	199
5	AT13	Wien	172
6	BE10	Région de Bruxelles-Capitale / Brussels Hoofdstede	169
7	PT17	Lisboa	157
8	ES51	Cataluña	155
9	HU10	Közép-Magyarország	147
10	PL12	Mazowieckie	147

Source: JRC/IPTS calculated using the FP7 contracts database-June 2014

4.2.2 From a stakeholder perspective

Table 16 shows the organisations most frequently collaborating with organisations based in Romania in the FP7 programme and the **Table 17** shows the FP7 leading organisations based in Romania.

Table 16: the leading organisations collaborating with organisations based in Romania in FP7

Legal name	Theme/activities	Type	NUTS2	Nbr of collab
CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE FONDATION D'UTILITE PUBLIQUE	Nuclear Fission and Radiation Protection	REC	BE21	24
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Research Infrastructures	REC	FR10	19
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	Nuclear Fission and Radiation Protection	REC	FR10	18
FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	Information and Communication Technologies	REC	DE21	18
NUCLEAR RESEARCH AND CONSULTANCY GROUP	Nuclear Fission and Radiation Protection	REC	NL32	17
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	Research Infrastructures	REC	FR10	15
CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS-CIEMAT	Nuclear Fission and Radiation Protection	REC	ES30	14
Karlsruher Institut fuer Technologie	Nuclear Fission and Radiation Protection	HES	DE12	14
TEKNOLOGIAN TUTKIMUSKESKUS VTT	Information and Communication Technologies	REC	FI18	14
JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	Environment (including Climate Change)	REC	EU	13
HELSINGIN YLIOPISTO	Research Infrastructures	HES	FI18	13
TWI LIMITED	Research for the benefit of SMEs	REC	UKH3	12
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE (INSERM)	Health	REC	FR10	12
OFFICE NATIONAL D'ETUDES ET DE RECHERCHES AEROSPATIALES	Transport (including Aeronautics)	REC	FR10	11
AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	Nuclear Fission and Radiation Protection	REC	ITE4	11
UJV REZ, a.s.	Nuclear Fission and Radiation Protection	PRC	CZ02	11
STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK	Environment (including Climate Change)	REC	NL22	11
INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	Food, Agriculture, and Biotechnology	REC	FR10	11

Source: JRC/IPTS calculated using the FP7 contracts database-June 2014

Table 17: the leading organisations based in Romania in FP7

Legal Name	Theme/activities	Type	Nbr of participations
REGIA AUTONOMA TEHNOLOGII PENTRU ENERGIA NUCLEARA - RATEN	Nuclear Fission and Radiation Protection	PRC	23
UNIVERSITATEA POLITEHNICA DIN BUCURESTI	Information and Communication Technologies	HES	15
UNIVERSITATEA TEHNICA CLUJ-NAPOCA	Information and Communication Technologies	HES	12
INSTITUTUL NATIONAL DE CERCETARE - DEZVOLTARE PENTRU FIZICA SI INGINERIE NUCLEARA "HORIA HULUBEI" (IFIN-HH)	Research Infrastructures	REC	10
Ministerul Educatiei Nationale	Health	PUB	10
INSTITUTUL NATIONAL DE CERCETARI AEROSPATIALE ELIE CARAFOLI - I.N.C.A.S. SA	Transport (including Aeronautics)	PRC	9
UNIVERSITATEA POLITEHNICA DIN BUCURESTI	Nuclear Fission and Radiation Protection	HES	9
TECHNOSAM SRL	Research for the benefit of SMEs	PRC	9
Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	Nanosciences, Nanotechnologies, Materials and new Production Technologies	REC	9
UNIVERSITATEA ALEXANDRU IOAN CUZA DIN IASI	Marie-Curie Actions	HES	7
INSTITUTUL NATIONAL DE CERCETARE-DEZVOLTARE TURBOMOTOARE - COMOTI	Transport (including Aeronautics)	REC	7
Unitatea Executiva pentru Finantarea Invatamantului Superior, a Cercetarii, Dezvoltarii si Inovarii	Food, Agriculture, and Biotechnology	REC	7
UNIVERSITATEA DIN BUCURESTI	Environment (including Climate Change)	HES	7
SIEMENS SRL	Information and Communication Technologies	PRC	7
INSTITUTUL NATIONAL DE CERCETARE - DEZVOLTARE PENTRU FIZICA SI INGINERIE NUCLEARA "HORIA HULUBEI" (IFIN-HH)	Nuclear Fission and Radiation Protection	REC	6
TARGET ACTIVE TRAINING	Marie-Curie Actions	PRC	6
UNIVERSITATEA DE STIINTE AGRONOMICE SI MEDICINA VETERINARA - BUCURESTI	Food, Agriculture, and Biotechnology	HES	6
INSTITUTUL E-AUSTRIA TIMISOARA	Information and Communication Technologies	REC	6
Ministerul Educatiei Nationale	Nanosciences, Nanotechnologies, Materials and new Production Technologies	PUB	6
ROMANIAN SPACE AGENCY	Space	REC	6

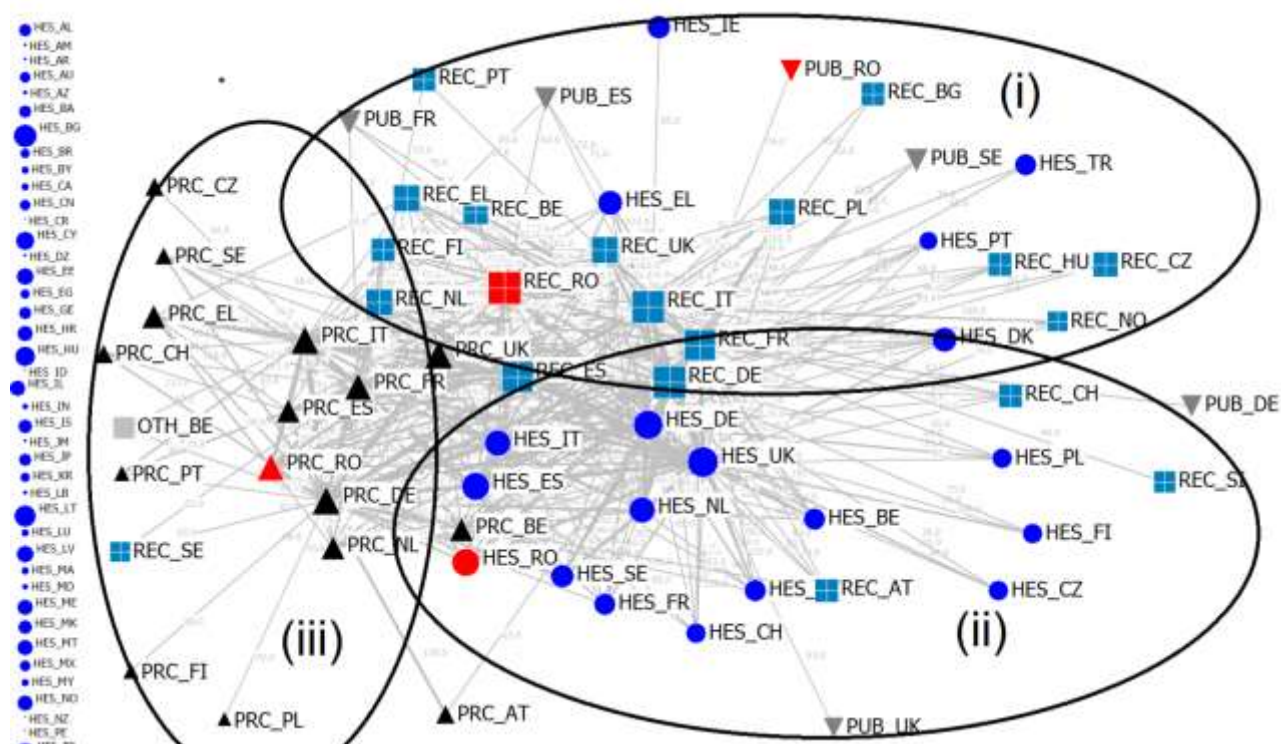
Source: JRC/IPTS calculated using the FP7 contracts database-June 2014

Figure 8 is a network analysis revealing the main collaboration links between organisations based in the country with national and international organisations. To improve the readability, organisations have been gathered in "groups" according to their type of activities (research, industry, higher education, governmental) and their geographical origins (according to country classification). The graph does not show the full picture, some groups (nodes) may not appear on the graph if they do not have at least one strong link to another group.

In the case of Romania, three rather homogeneous sub-networks can be easily identified:

- The first sub-network mostly composed of Public organisations (REC) is linked the two other sub-networks (Private firms and Universities). Romanian public research organisations seem to be positioned at the core of this sub-network with strong links with research organisations based in UK, Belgium, Spain, Finland, Italy.
- A second sub-network with Higher education (HES) mostly linked to other European public research organisations but also Private commercial organisations in other countries. UK and German Universities (HES_UK and HES_DE) seem to play an important structuring role;
- A third Sub-network concerns Private firms. This group is less important than the two others. Romanian firms do seem to play an important role in the structure of the network.

Figure 8 : The main collaboration network of Romania in the FP7



Remark: -The graph does not show the full picture of regional collaborations. A node appears on the graph only if the number of connections (collaborations) is superior to 60.

HES Higher or secondary education est.

REC Public Research organisations

PRC Private commercial (Large companies and SME)

PUB Public body (excl. research and education)

OTH Other private organisations

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HU	Hungary
IE	Ireland
IL	Israel
IT	Italy
LV	Latvia
LT	Lithuania
ME	Montenegro
MT	Malta
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
TR	Turkey
UK	United Kingdom

Source: JRC/IPTS calculated using the FP7 contracts database-June 2014

Annexes

1. Participation in FP7 cooperation programme

Table 18: Detailed participation figures in FP7 research areas

		ROMANIA			FP7	
		EC contrib. (In €M)	Nbr of part.		EC contrib. (In €M)	Nbr of part.
TOTAL FP7		86.73	641		27 902.29	85 994
Health		7.41	63		5 515.56	12 523
Biotechnology, generic tools and medical technologies for human health	RO	0.80	6	FP7	2 377.05	4 377
High-throughput research	RO	0.15	2	FP7	157.93	306
Detection, diagnosis and monitoring	RO	0.06	1	FP7	272.30	577
Suitability, safety, efficacy of therapies	RO	0.00	0	FP7	117.78	204
Innovative therapeutic approaches and interventions	RO	0.38	2	FP7	457.80	833
Integrating biological data and processes: large-scale data gathering, systems biology	RO	0.00	0	FP7	647.92	1 190
JTI-IMI (Innovative Medicines Initiative)	RO	0.20	1	FP7	723.31	1 267
Translating research for human health	RO	4.11	31	FP7	2 356.65	5 429
Research on the brain and related diseases, human development and ageing	RO	0.78	6	FP7	518.12	1094
Translational research in major infectious diseases: To confront major threats to public health	RO	2.42	16	FP7	764.08	1751
Translational research in other major diseases	RO	0.91	9	FP7	1 074.45	2584
Optimising the delivery of healthcare to European citizens	RO	1.96	18	FP7	399.06	1422
Translating the results of clinical research outcome into clinical practice including better use of medicines, and appropriate use of behavioural and organisational interventions and new health therapies and technologies	RO	0.45	6	FP7	106.73	361
Quality, efficiency and solidarity of healthcare systems including transitional health systems	RO	0.28	2	FP7	99.32	375
Health promotion and prevention	RO	1.20	8	FP7	81.77	323
International public health & health systems	RO	0.03	2	FP7	86.37	289
Specific international cooperation actions for health system research	RO	0.00	0	FP7	24.87	74
Other Actions across the Health Theme	RO	0.54	8	FP7	382.80	1295
Coordination and Support Actions across the Theme	RO	0.16	4	FP7	46.70	436
Responding to EU policy needs	RO	0.38	4	FP7	192.51	638
Specific International Cooperation Actions (SICA)	RO	0.00	0	FP7	49.36	139
Horizontal topics for collaborative projects relevant for the whole of theme health	RO	0.00	0	FP7	94.24	82
Food, Agriculture and Fisheries, and Biotechnology	RO	5.15	57	FP7	1 841.70	7847
Sustainable production and management of biological resources from land, forest, and aquatic environment	RO	0.77	10	FP7	452.65	2164
Increased sustainability of all production systems (agriculture, forestry, fisheries and aquaculture); plant health and crop protection	RO	0.74	9	FP7	326.56	1557
Optimised animal health production and welfare across agriculture, fisheries and aquaculture	RO	0.03	1	FP7	126.09	607
Fork to farm: Food (including seafood), health and well being	RO	1.89	21	FP7	571.52	2304
The Ocean of Tomorrow	RO	0.80	3	FP7	70.04	217
Consumers	RO	0.00	0	FP7	39.78	142
Nutrition	RO	0.10	1	FP7	149.25	493
Food processing	RO	0.35	6	FP7	127.13	590
Food quality and safety	RO	0.40	6	FP7	101.10	467
Environmental impacts and total food chain	RO	0.23	5	FP7	84.21	395
Life sciences, biotechnology and biochemistry for	RO	1.65	13	FP7	564.90	1832

sustainable non-food products and processes						
Novel sources of biomass and bioproducts	RO	0.96	7	FP7	110.98	391
Marine and fresh-water biotechnology (blue biotechnology)	RO	0.03	1	FP7	125.95	413
Industrial biotechnology: novel high added-value bio-products and bio-processes	RO	0.06	1	FP7	114.61	328
Biorefinery	RO	0.10	1	FP7	78.68	227
Environmental biotechnology	RO	0.17	1	FP7	58.30	268
Emerging trends in biotechnology	RO	0.32	2	FP7	76.38	205
Other activities	RO	0.84	13	FP7	252.64	1547
Socio-economic research and support to policies and Cross cutting activities	RO	0.84	13	FP7	252.64	1547
Information and Communication Technologies	RO	23.63	122	FP7	7 874.97	23202
Pervasive and Trustworthy network and service infrastructures	RO	8.23	41	FP7	1 987.50	5557
Cognitive systems, interaction, robotics	RO	1.28	4	FP7	615.93	1220
Components, systems, engineering	RO	1.28	8	FP7	810.22	2398
Digital libraries and content	RO	1.40	8	FP7	644.08	1790
ICT for mobility, environmental sustainability and energy efficiency	RO	2.84	18	FP7	842.77	2695
ICT for Health, Ageing Well, Inclusion and Governance	RO	4.59	21	FP7	883.60	2650
Future and emerging technologies	RO	1.41	8	FP7	1 466.65	3983
Horizontal Actions	RO	1.51	7	FP7	64.38	545
ICT for the Enterprise and Manufacturing	RO	0.57	2	FP7	216.75	523
ICT for Learning and Access to Cultural Resources	RO	0.29	3	FP7	171.24	495
International Cooperation	RO	0.00	0	FP7	36.05	307
JTI-ARTEMIS (Embedded Computing Systems)	RO	0.23	2	FP7	135.81	1039
Nanosciences, Nanotechnologies, Materials and new Production Technologies - NMP	RO	15.42	105	FP7	3 707.95	11548
Nanosciences and Nanotechnologies	RO	3.04	21	FP7	771.56	2457
Materials	RO	3.60	18	FP7	742.04	2226
New production processes	RO	2.26	14	FP7	490.01	1525
Integration of nanotechnologies for industrial applications	RO	2.82	26	FP7	594.25	2121
JTI-ENIAC (Nanoelectronics Technologies 2020)	RO	0.79	10	FP7	468.96	1349
Recovery Package: Public-Private Partnership (PPP) topics within NMP	RO	2.91	16	FP7	641.14	1870
Energy	RO	1.97	19	FP7	2 094.31	5422
Hydrogen and fuel cells	RO	0.00	0	FP7	23.94	69
JTI-FCH European Hydrogen and Fuel Cell Technology Platform)	RO	0.00	0	FP7	415.67	1186
Renewable electricity generation	RO	0.18	2	FP7	473.52	998
Renewable fuel production	RO	0.25	2	FP7	239.19	508
Renewables for heating and cooling	RO	0.41	2	FP7	59.28	174
CO2 capture and storage technologies for zero emission power generation	RO	0.25	3	FP7	145.80	478
Clean coal technologies	RO	0.00	0	FP7	58.13	130
Cross-cutting actions between activities Energy-5 and Energy-6	RO	0.00	0	FP7	27.99	84
Smart energy networks	RO	0.57	7	FP7	261.24	654
Energy efficiency and savings	RO	0.02	2	FP7	221.38	551
Knowledge for energy policy making	RO	0.00	0	FP7	17.82	115
Horizontal programme actions	RO	0.30	1	FP7	150.35	475
Environment (including Climate Change)	RO	9.39	83	FP7	1 719.15	7131
Pressures on environment and climate	RO	1.13	12	FP7	360.13	1587
Sustainable management of resources	RO	1.74	12	FP7	276.87	1106
Environmental technologies	RO	2.07	20	FP7	290.21	1404
Earth observation and assessment tools for sustainable development	RO	1.57	12	FP7	160.60	810
Horizontal activities	RO	0.54	6	FP7	16.72	152
Coping with climate change	RO	0.42	3	FP7	146.51	399
Sustainable use and management of land and seas	RO	0.99	9	FP7	139.29	450
Improving resource efficiency	RO	0.40	2	FP7	169.03	580
Protecting citizens from environmental hazards	RO	0.09	2	FP7	86.87	270
Mobilising environmental knowledge for policy, industry and society	RO	0.42	5	FP7	72.92	373
Aeronautics and air transport	RO	7.16	37	FP7	1 004.78	3174
Green Aircraft	RO	1.81	9	FP7	295.55	827

Time Efficient Air Transport Operations	RO	0.00	0	FP7	40.45	108
Aircraft Safety	RO	0.77	5	FP7	150.26	401
Aircraft Operational Cost	RO	2.04	4	FP7	385.95	1034
Operational Security	RO	0.14	1	FP7	13.48	45
Promising Pioneering Ideas in Air Transport	RO	0.40	2	FP7	81.68	307
CROSS-CUTTING ACTIVITIES for implementation of the sub-theme programme	RO	0.63	8	FP7	35.41	434
JTI-CLEAN SKY (Aeronautics and Air Transport)	RO	1.36	8	FP7	2.00	18
Space	RO	2.56	30	FP7	784.60	3203
Space-based applications at the service of the European Society	RO	1.33	17	FP7	350.86	1245
Research to support space science and exploration	RO	0.54	3	FP7	248.28	979
International Cooperation	RO	0.25	3	FP7	109.56	400
GALILEO/Exploiting the Full Potential	RO	0.21	4	FP7	48.23	386
GALILEO/Adapting Receivers to Requirements and Upgrading Core Technologies	RO	0.00	0	FP7	13.94	69
GALILEO/Supporting Infrastructure Evolution	RO	0.23	3	FP7	13.74	124
Sustainable surface transport (INCLUDING THE 'EUROPEAN GREEN CARS INITIATIVE')	RO	7.22	52	FP7	1 203.53	5255
Rail	RO	0.46	2	FP7	164.54	766
Road	RO	0.59	4	FP7	287.80	1051
Urban mobility	RO	3.25	7	FP7	142.53	429
Waterborne	RO	1.45	19	FP7	184.66	776
Multimodal	RO	1.14	14	FP7	364.33	1794
Cross cutting activities	RO	0.33	6	FP7	59.67	439
Socio-economic sciences and Humanities	RO	2.21	31	FP7	579.55	2766
Growth, employment and competitiveness in a knowledge society	RO	0.00	0	FP7	108.37	473
Combining economic, social and environmental objectives in a European perspective	RO	0.55	6	FP7	117.69	499
Major trends in society and their implications	RO	0.71	10	FP7	93.80	485
Europe in the world	RO	0.16	2	FP7	98.91	432
The Citizen in the European Union	RO	0.51	7	FP7	92.55	397
Socio-economic and scientific indicators	RO	0.10	2	FP7	23.44	150
Foresight activities	RO	0.13	1	FP7	15.88	105
Horizontal Actions	RO	0.05	3	FP7	28.92	225
Security	RO	4.35	38	FP7	1 263.49	3741
Increasing the Security of citizens	RO	0.72	3	FP7	235.78	656
Increasing the Security of infrastructures and utilities	RO	0.89	6	FP7	248.96	710
Intelligent surveillance and enhancing border security	RO	0.49	5	FP7	208.72	466
Restoring security and safety in case of crisis	RO	0.49	6	FP7	289.53	733
Improving Security systems integration, interconnectivity and interoperability	RO	0.00	0	FP7	74.50	212
Security and society	RO	0.62	5	FP7	113.39	479
Security Research coordination and structuring	RO	1.04	12	FP7	70.01	398
Security systems integration, interconnectivity and Interoperability	RO	0.09	1	FP7	21.80	83
Horizontal Actions	RO	0.00	0	FP7	0.79	4

Source: JRC/IPTS calculated using the FP7 contracts database-June 2014