

# Stairway to Excellence

Cohesion Policy and the Synergies with the  
Research and Innovation Funds

**Slovakia (SK)**

**Facts & Figures**



July 2015

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Please include the following information to reference this report:

- European Commission, JRC-IPTS (2015), Stairway to Excellence Facts and Figures: Slovakia.

For further information contact:

- Mathieu Doussineau: Mathieu.DOUSSINEAU@ec.europa.eu
- Nicholas Harrap: Nicholas.HARRAP@ec.europa.eu

# 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 7<sup>th</sup> 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 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 Slovakia (0.83%) is lower than the EU13 average (1.05%) and the EU15 countries (2.01%). R&D expenditure is primarily concentrated in the Business Enterprise sector followed by the Higher Education sector and Government sector (Table 1).
- The Bratislava region takes by far the largest proportion of FP7 funding (58.9%). The Structural funds are fairly evenly spread across the regions (Table 2 & Figure 1).
- As is the case for many of the EU13 countries, Slovakia did not manage to maintain its funding share from FP6 in FP7. Overall the EU13 countries are even outperformed by the countries associated to FP7 (Figure 2).
- In FP7, Slovakia accounts for 480 participations and 38 project coordinations. The FP7 financial contribution per inhabitant (14.44 €/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**

- While the largest FP7 financial contribution to Slovakia is from the Cooperation Specific Programme (the thematic part of FP7) and proportionally similar to FP7 overall, there is a slight bias towards the Capacities Specific Programme (SME Measures, Research Infrastructures Initiatives etc.) as it accounts for around 18.5% of their contribution but only accounts for 8.5% of FP7 (Table 4 & Figure 3). While most funds were channelled to Slovakia through Collaborative Projects there was a bias towards Coordination and Support Actions, Infrastructure Initiatives and ERA-NET Actions (Table 5 & Figure 4).
- According to the 2013 annual implementation report, 13% of structural funds were earmarked in the OPs to research and innovation RTDI. There are two national OPs that have dedicated RTDI funding. The Competitiveness and Economic Growth OP had most funds allocated to projects (AIR 2013) for "Other investment in firms", while the Infrastructure and Environment OP had substantial funds allocated to projects related to infrastructures and technology transfer. Substantial funds were allocated to "R&TD activities in research centres" but less than was estimated in the OP (Table 6 & 7).
- In terms of funding absorption, Slovakia consumed more than the envelope dedicated to research and innovation in both national OPs with RTDI funding. The Competitiveness and Economic Growth OP consumed 110.4% and the Infrastructure and Environment OP 129.1%. However, there were important variations in terms of what was originally programmed in the OP and what has finally been allocated among the priorities. (Table 7).

## **Specialisation areas**

- The four specialisation areas chosen by Slovakia are aligned with some specialisation indicators observed for participation in FP7. About a third of the FP7 funding can be estimated as being aligned to Slovakian specialisation areas (Tables 9 & 10).
- Participants have shown a strong interest in FP7 priorities linked to Security and Socio-economic Sciences and Humanities, areas that account for a greater proportion of Slovakia's funding than FP7 overall. However, the most funding for Slovakia comes from ICT (23%) although this is less than the proportion for FP7 (28.5%). (Figure 5 & Table 11).

## **Beneficiaries profile including SME participation**

- The largest proportion of the FP7 EU contribution was received by the Higher or Secondary Education sector (36.4%). This sector is closely followed by the Private Commercial sector at 33.4%. Public Bodies account for a greater proportion than for FP7 generally, 5.3% against 2.6%. (Table 12 & Figure 6).
- The financial contribution to SMEs is proportionally much larger than FP7. Slovakia accounts for 64 participations of SMEs in the FP7 thematic programme, representing 36% of the EC budget for the thematic programme open to all type of participants. Slovakian SMEs are involved in the ICT theme (23 participations), New Production

Technologies (9), Integration of Nanotechnologies (7) and Security (6). The only areas where SMEs are not involved are Aeronautics, Rail and Socio-economics and Humanities (Table 13 & Figure 7).

- The overall success rate for Slovakia (16.5%) is lower than the average FP7 success rate (20.4%). The Slovakian success rate is higher than the FP7 average in Security, Regions of Knowledge and Research Potential (Table 14).

#### **Main collaboration axis between Slovakia and other European countries**

- The EU country that Slovakia collaborated with the most in FP7 was Germany, followed by the UK, Italy, France then Spain Madrid area, Western Slovenia (Zagreb area), and the Roma area (Table 15 & Figure 8).
- Slovakian participation in FP7 is organised around all four categories of participant; structured into three distinct groups. Slovakian Higher Education organisations collaborate predominately with Public Research organisations, and to a lesser extent, Higher Education organisations in other countries. Public Research organisations are most strongly connected within a group of Higher Education organisations and particularly those from Germany and the UK. We can observe the same phenomenon with private companies being grouped together (Figure 9).

## 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 country in 2013**

	Slovakia	EU13*	EU15	EU28
Population	5 410 836	105 127 027	401 484 800	506 611 827
GDP - Euro per capita	13 300	10 417	29 800	25 700
GDP - Euro per capita in % of EU average	51.5	40.5	115.3	100
R&D expenditure – Total (million Euro)	610.88	11 521.81	260 036.97	271 558.78
R&D expenditure – Total [% of GDP]	0.83	1.05	2.09	2.01
R&D expenditure - Business Enterprise Sector (BES) [% of GDP]	0.38	0.54	1.34	1.28
R&D expenditure - Government Sector (GOV) [% of GDP]	0.17	0.23	0.25	0.25
R&D expenditure - Higher Education Sector (HES) [% of GDP]	0.27	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)	0.63	0.62	1.25	1.12
R&D Personnel – BES (% of active population)	0.13	0.25	0.69	0.60
R&D Personnel – GOV (% of active population)	0.13	0.15	0.15	0.15
R&D Personnel – HES (% of active population)	0.37	0.22	0.39	0.36
R&D Personnel – PnP (% of active population)	0	0.002	0.01	0.01
Unemployment Rate***	14.2	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 Slovakia. 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)<sup>1</sup> 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 Journal<sup>2</sup>. Hereafter categories 1-9 and 74 are collectively known as research and technological development, and innovation (RTDI). It should be noted that these values do not represent

<sup>1</sup> 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.

<sup>2</sup> 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>

the funding available, only the total allocated to projects at the time of the 2013 AIR and NUTS 3 allocations were aggregated to NUTS2.

Two type of EU funding can be distinguished:

- European structural funds managed by National Authorities and allocated to regions through a national operational programme (infrastructure and environment OP and competitiveness and economic growth OP).
- Funding received by organisations involved in FP7 project managed by the European Commission

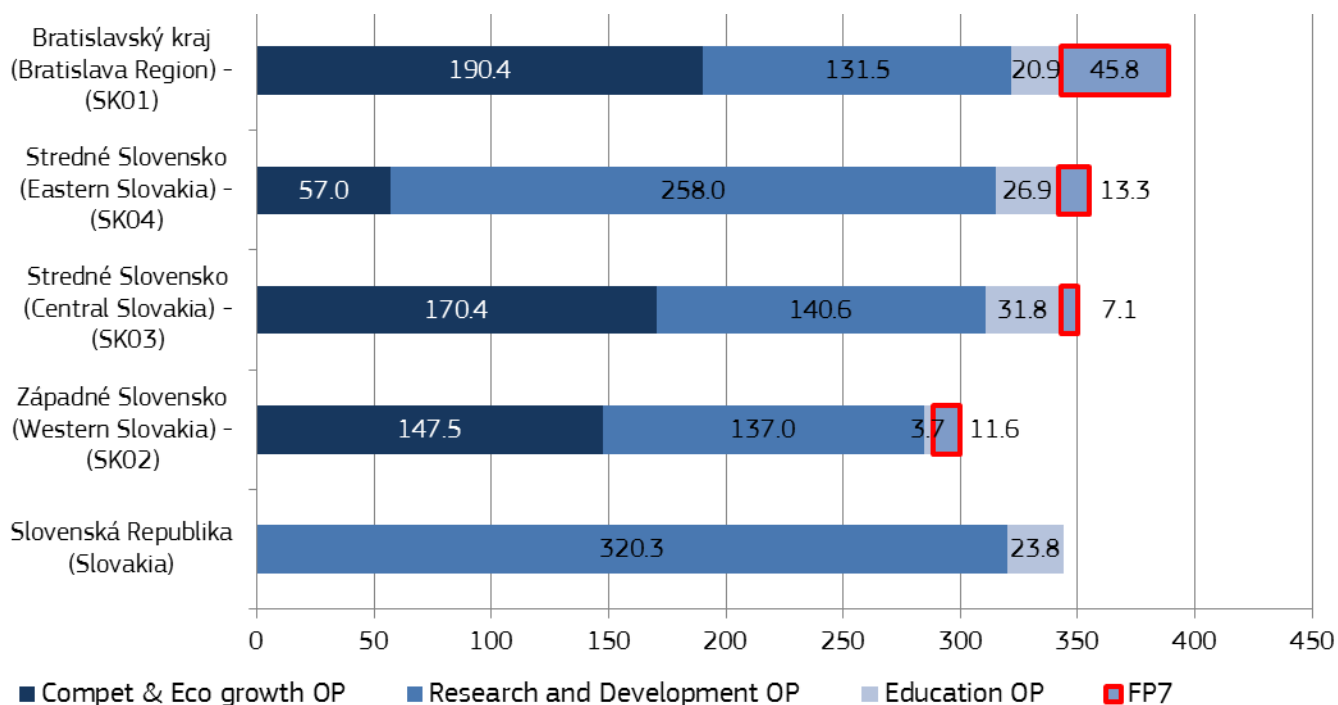
It is notable that the largest proportion of Structural Funds (~22%) allocated to projects were managed within the Capital region, however the split between the regions is fairly even. Furthermore, 20% is also being managed at the national level rather than the regional level.

**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)
Bratislavský kraj (Bratislava Region) - (SK01)	45.8	58.9%	75.47	347.3	20.6%	580.7
Západné Slovensko (Western Slovakia) - (SK02)	11.6	14.9%	6.31	353.7	21.0%	191.9
Stredné Slovensko (Central Slovakia) - (SK03)	7.1	9.1%	5.22	311.4	18.5%	230.6
Stredné Slovensko (Eastern Slovakia) - (SK04)	13.3	17.1%	8.33	331.9	19.7%	207.5
Slovenská Republika (Slovakia)	-	-	-	338.7	20.01%	-
<b>Total</b>	<b>77.8</b>	<b>100%</b>	<b>14.4</b>	<b>1683.0</b>	<b>100%</b>	<b>312.2</b>

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

**Figure 1: Regional breakdown of FP7 and National OPs EU Contribution received by the country**





## 2.2.2 Slovakia in the FP7<sup>3</sup>

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 2**).
- The breakdown between FP7 specific programmes (**Figure 3** and **Table 4**) and funding instruments (comparison only with the FP7) (**Figure 4** and **Table 5**).

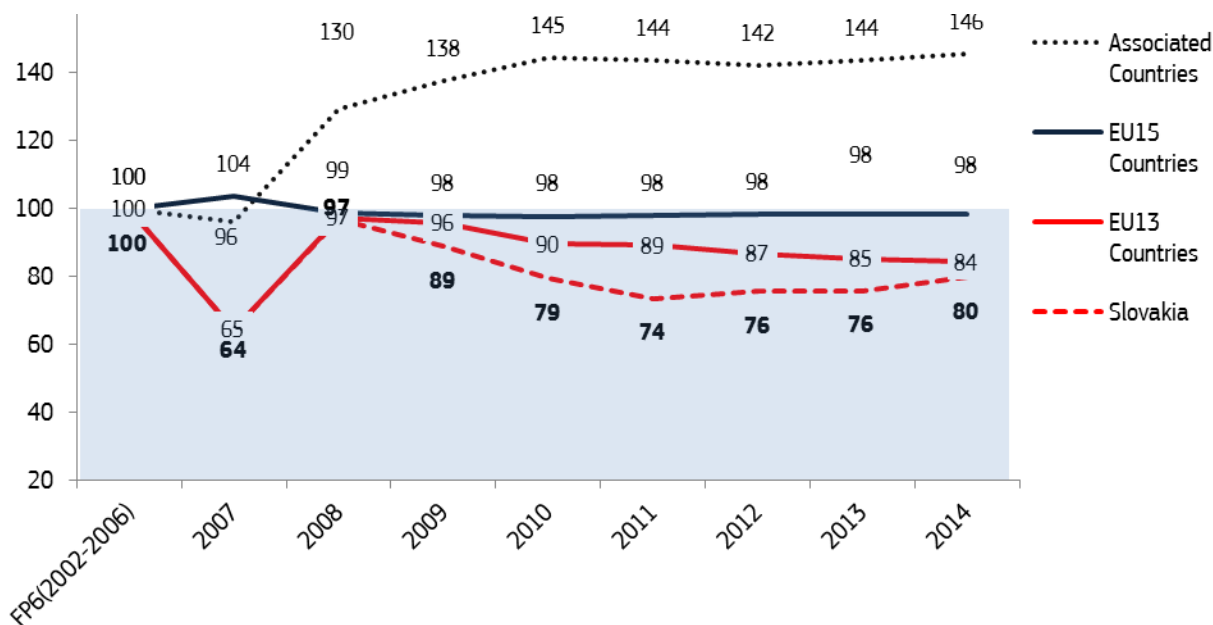
**Table 3: General FP7 indicators (Source: EC FP7 contract database June 2014)**

	<b>Slovakia (% of FP7)</b>	<b>EU13 (% of FP7)</b>	<b>EU15 (% of FP7)</b>	<b>FP7<sup>4</sup></b>
EU Contribution (in M€)	77.8 (0.18%)	1 883.6 (4.2%)	37 852.2 (85.3%)	44 364,1
Number of participations	480 (0.36%)	10 637 (8.0%)	105 731	132 382
Number of coordinations	38 (0.15%)	1 011 (4.0%)	20 301	25 052
EU Contribution per inhabitant (in €)	14.4	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 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 2: Evolution of the Share of EU FP contribution received between 2006 and 2014 (EU FP6 budget share taken as base 100)**



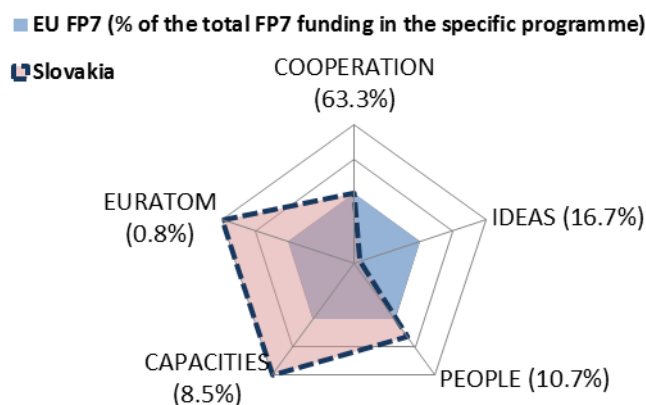
Source: JRC-IPTS calculated using data FP6 and FP7 contract database-June 2014

<sup>3</sup> 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.

<sup>4</sup> EU28 and associated countries

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 3: Comparison of the EU Contribution breakdown among FP7**

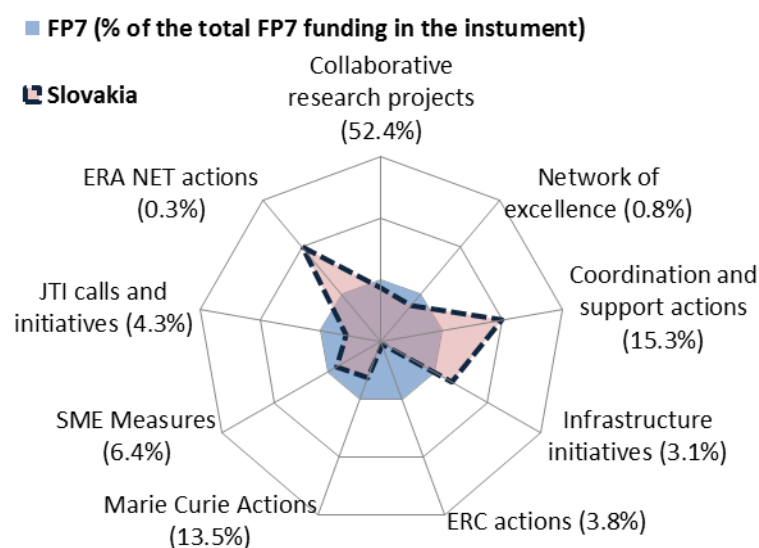


**Table 4: Breakdown of the FP7 EU Contribution among specific programmes**

	% of EU Contribution	
	Slovakia	FP7
COOPERATION	63.8%	63.3%
IDEAS	1.5%	16.7%
PEOPLE	14.1%	10.7%
CAPACITIES	18.5%	8.5%
EURATOM	2.1%	0.8%
	100%	100%

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

**Figure 4: Comparison of funded participations breakdown among FP7 funding instruments**



**Table 5 Breakdown of the participations among FP7 funding instruments**

	% of EU CONTRIBUTION	
	Slovakia	FP7
Collaborative research projects	45.2%	52.4%
Network of excellence	0.6%	0.8%
Coordination and support actions	32.7%	15.3%
Infrastructure initiatives	4.2%	3.1%
ERC actions	0.2%	3.8%
Marie Curie Actions	8.5%	13.5%
SME Measures	5.4%	6.4%
JTI calls and initiatives	2.5%	4.3%
ERA NET actions	0.6%	0.3%
TOTAL	100.0%	100.0%

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 Slovakian National and Regional Operational Programmes and 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 Slovakian national and regional OPs 2001-2013**

Operational Programmes 2007-2013	Fund <sup>5</sup>	Estimate in Adopted OP(s)		AIR 2013		Absorption %	
		ME All	ME RTDI	ME All	ME RTDI	All	RTDI
Information Society	ERDF	843.6	-	951.1	-	112.7%	-
Environment	ERDF & CF	1 820.0	-	1 600.9	-	88.0%	-
Regional Operational Programme	ERDF	1 554.5	-	1 492.3	-	96.0%	-
Transport	ERDF & CF	3 160.2	-	2 999.4	-	94.9%	-
Health	ERDF	250.0	-	244.1	-	97.7%	-
Competitiveness and Economic Growth	ERDF	968.3	512.2	953.3	565.3	98.5%	110.4%
Technical Assistance	ERDF	97.6	0.0	115.9	0.0	118.8%	-
Bratislava Region	ERDF	95.2	23.2	85.0	23.3	89.2%	100.4%
Research and Development	ERDF	1 209.4	764.8	1 341.2	987.3	110.9%	129.1%
<b>Total ERDF and CF</b>		<b>9 998.7</b>	<b>1 300.2</b>	<b>9 783.1</b>	<b>1 575.8</b>	<b>97.8%</b>	<b>121.2%</b>
Education	ESF	542.7	81.9	716.1	107.2	131.9%	130.9%
Employment and social inclusion	ESF	941.3	-	1349.1	-	143.3%	-
<b>Total ESF</b>		<b>1484.0</b>	<b>81.9</b>	<b>2 065.2</b>	<b>107.2</b>	<b>139.2%</b>	<b>130.9%</b>
<b>Overall Total</b>		<b>11 482.7</b>	<b>1 382.1</b>	<b>11 848.3</b>	<b>1 683.0</b>	<b>103.2%</b>	<b>121.8%</b>

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 Slovakian national operational programmes that address RTDI priority themes. These are the Competitiveness and Economic Growth, Research and Development and Education operational programmes and the table only presents the funding for RTDI relevant priority themes. There are ten priority themes 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.

<sup>5</sup> ERDF = European Regional Development Fund, ESF = European Social Fund, CF = Cohesion Fund

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

Priority code	Competitiveness and Economic Growth OP 2007-2013			Research and Development OP 2007 - 2013			Education OP 2007 - 2013		
	Estimate Adopted OP	AIR 2013	Absorb.	Estimate Adopted OP	AIR 2013	Absorb.	Estimate Adopted OP	AIR 2013	Absorb.
	ME	ME	%	ME	ME	%	ME	ME	%
1	18.4	3.4	18.3%	389.6	246.9	63.4%			
2				250.6	435.3	173.7%			
3	73.4	28.1	38.3%	124.6	305.0	244.8%	16.4	0.0	0
4	34.1	0.0	0.0%						
5	50.7	48.3	95.3%						
6	79.8	9.9	12.4%						
7	100.7	40.9	40.6%						
8	87.4	335.8	384.1%						
9	67.6	98.9	146.2%						
74							65.5	107.2	163.6%
<b>Total RTDI</b>	<b>512.2</b>	<b>565.3</b>	<b>110.4%</b>	<b>764.8</b>	<b>987.3</b>	<b>129.1%</b>	<b>81.9</b>	<b>107.2</b>	<b>130.9%</b>

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 three Slovakian national operational programmes that have RTDI relevant funding and, if identified, the region where the funds were allocated.

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

	Funding allocated to projects (AIR 2013) for RTDI (ME)					
	Competitiveness and Economic Growth		Research and Development		Education	
	ME	%	ME	%	ME	%
Slovenská Republika (Slovakia)			320.3	32.4%	23.8	22.2%
Bratislavský kraj (Bratislava Region) - (SK01)	190.4	33.7%	131.5	13.3%	3.7	3.5%
Západné Slovensko (Western Slovakia) - (SK02)	147.5	26.1%	137.0	13.9%	31.8	29.7%
Stredné Slovensko (Central Slovakia) - (SK03)	170.4	30.1%	140.6	14.2%	26.9	25.1%
Stredné Slovensko (Eastern Slovakia) - (SK04)	57.0	10.1%	258.0	26.1%	20.9	19.5%
<b>Total</b>	<b>565.3</b>	<b>100%</b>	<b>987.3</b>	<b>100%</b>	<b>107.2</b>	<b>100%</b>

Source: JRC/IPTS calculated from the 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 Slovakia in the design of their smart specialisation strategy. Based on information that regional and national authorities submit to the Eye@RIS3<sup>6</sup> database the following related information is added:

- the national 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 NACE<sup>7</sup> sectoral codes. Often these capability and market categories overlap, as is the case in for Slovakia. Any subcategories were combined with the main category.

**Table 9: Specialisation areas chosen in the smart specialisation strategy of Slovakia**

Description of chosen specialisation area	Identified capability	Identified target market	EU priority connected to
ICT and Services.	Information & communication technologies (ICT) - Computer programming, consultancy & related activities	Information & communication technologies (ICT) - Computer programming, consultancy & related activities	Digital Agenda - E-Commerce & SMEs online
Production and processing of iron and steel.	Manufacturing & industry - Other manufacturing	Construction - Specialised construction activities	Sustainable innovation - Resource efficiency
Automotive & mechanical engineering industries	Manufacturing & industry - Motor vehicles & other transport equipments	Manufacturing & industry - Motor vehicles & other transport equipments	KETs - Advanced manufacturing systems
Consumer electronics and electrical equipment.	Manufacturing & industry - Computer, electronic & optical products	Manufacturing & industry - Electrical equipment	Digital Agenda - Intelligent inter-modal & sustainable urban areas (e.g. smart cities)

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

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

In the innovation Union progress report published in 2014<sup>8</sup>, 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

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

<sup>7</sup> [http://epp.eurostat.ec.europa.eu/portal/page/portal/nace\\_rev2/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/nace_rev2/introduction)

<sup>8</sup> [http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2014/iuc\\_progress\\_report\\_2014.pdf#view=fit&pagemode=none](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.

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	2.09	
Biotechnology	2.02	
Health	4.19	
Information & communication technologies (ICT)	11.41	yes partially
Nanosciences & Nanotechnologies	0.87	
Materials	2.21	yes partially
New production technologies (incl. Construction technologies)	2.70	yes partially
Integration of nanotechnologies for industrial applications (JTI ENIAC Incl.)	3.38	
Energy	5.40	
Environment	3.14	
Aeronautics	0.79	
Space	0.12	
Automotive	0.30	yes partially
Rail	0.00	
Waterborne	0.14	
Urban transport and intermodalities	1.16	
Socio economic sciences and humanities	2.56	
Security	7.13	
<b>TOTAL Cooperation Programme</b>	<b>49.61</b>	
<b>TOTAL Cooperation Programme related to S3 priorities</b>	<b>16.62 (33.5%)</b>	

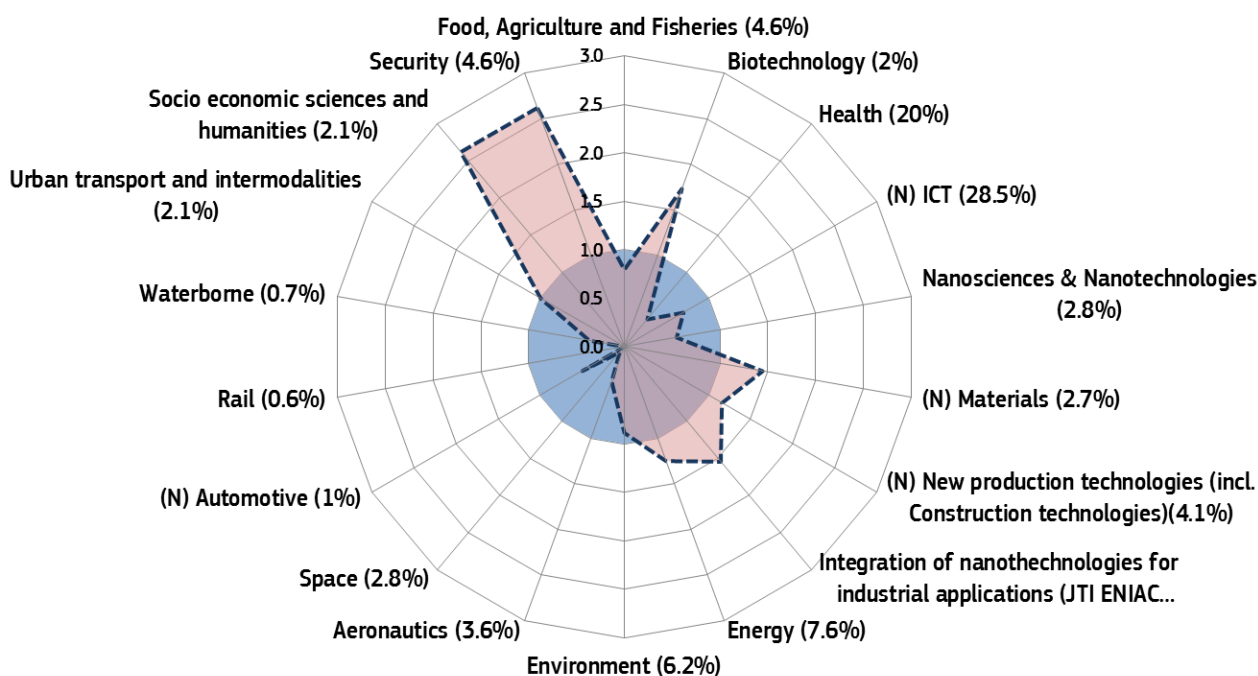
Source: data: FP7 contracts database-June 2014, processed by JRC-IPTS

Regarding specialisation areas emerging from the FP7 participation, the following graph shows the difference in the budget breakdown between overall FP7 funding and the FP7 contribution received by the country (or the region) among themes. This is not a performance indicator because we are only comparing the territory (Country or Region) with itself. In order to avoid mass effect of better funded themes (such as Health, ICT for instance) It has been decided to consider a uniform distribution of the overall FP7 funding among themes. Graph show if indicator is superior to 1 an "over-distribution" or a "sub-distribution" if indicator inferior to 1. The graph must be read with the table hereunder. The table show the weight of each theme in the total funding.

The matching between smart specialisation areas chosen by (national or regional) authorities should be treated with care in the case of specialisation areas that are more detailed than FP7 or conversely less detailed. The theme funded by FP7 encompasses a broad range of activities (see table in annex 1 to see research activities funded under each theme) whereas Specialisation areas concern only one or a limited number of activities.

**Figure 5: 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  
 □ Slovakia



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

**Table 11: Budget breakdown among themes (Figure 5 is only the graphical interpretation of this table)**

Research area	Slovakia	FP7
Food, Agriculture and Fisheries	4.2%	4.6%
Biotechnology	4.1%	2.0%
Health	8.4%	20.0%
ICT	23.0%	28.5%
Nanosciences & Nanotechnologies	1.8%	2.8%
Materials	4.5%	2.7%
New production technologies (incl. Construction technologies)	5.4%	4.1%
Integration of nanotechno. for industrial applications	6.8%	3.9%
Energy	10.9%	7.6%
Environment	6.3%	6.2%
Aeronautics	1.6%	3.6%
Space	0.2%	2.8%
Automotive	0.6%	1.0%
Rail	0.0%	0.6%
Waterborne	0.3%	0.7%
Urban transport and intermod.	2.3%	2.1%
Socio economic sci and humanity	5.2%	2.1%
Security	14.4%	4.6%
	100%	100%

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

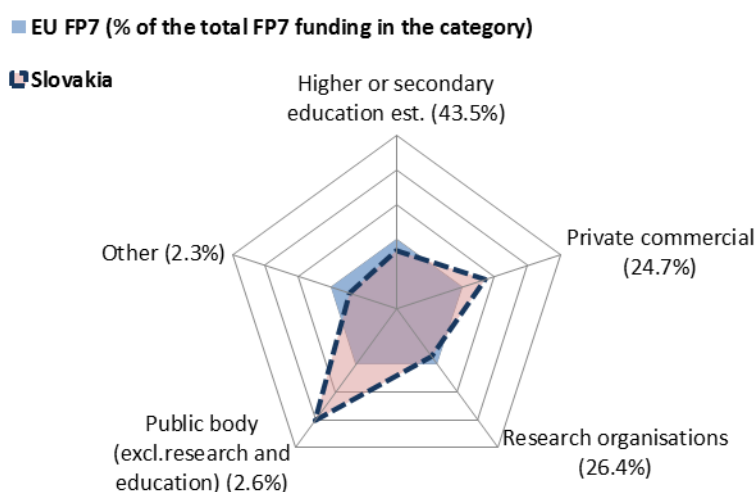
## 4. EU funding users profile

### 4.1 FP7 beneficiaries profile

#### 4.1.1 Participation profile by type of activity

**Figure 6** 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 6 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	
	SLOVAKIA	FP7
Higher or secondary education est.	36.4%	43.5%
Private commercial	33.4%	24.7%
Research organisations	23.2%	26.9%
Public body (excl. research and education)	5.3%	2.6%
Other	1.7%	2.3%
	100%	100%

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

### 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**

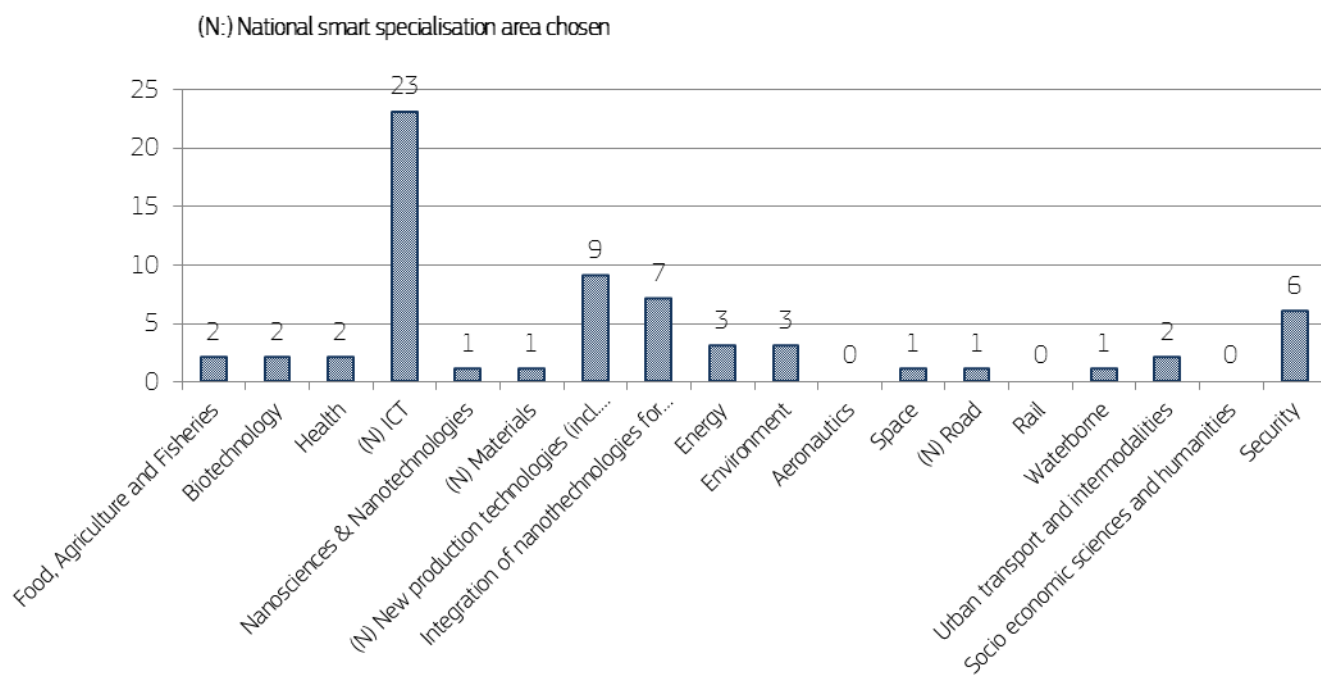
	Slovakia (i)	FP7 (ii)
EC Financial Contribution-Cooperation Programme	17.88 (36%)	2 560.42 (9.1%)
Number of SME participation-Cooperation Programme	64 (8.2%)	9 483 (10.9%)
Number of SME coordination-Cooperation Programme	5 (55.6%)	555 (7.1%)

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

The participation of Slovakian SMEs among the various research areas is shown with **Figure 7**. 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 7: Number of SMEs in FP7 research themes for Slovakia**



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	Slovakia			FP7		
		Nbr of Participations*	Nbr of Retained participations*	Success Rate	Nbr of Participations*	Nbr of Retained participations*	Success Rate
COOPERATION	Health	125	20	▼ 16.0%	41 361	10 275	<b>24.8%</b>
COOPERATION	Food, Agriculture, and Biotechnology	171	23	▼ 13.5%	35 362	7 465	<b>21.1%</b>
COOPERATION	Information and Communication Technologies	434	66	▼ 15.2%	131 030	21 356	<b>16.3%</b>
COOPERATION	Nanosciences, Nanotechnologies, Materials and new Production Technologies	194	36	▼ 18.6%	35 451	9 354	<b>26.4%</b>
COOPERATION	Energy	125	17	▼ 13.6%	17 415	4 072	<b>23.4%</b>
COOPERATION	Environment (including Climate Change)	167	21	▼ 12.6%	31 912	6 825	<b>21.4%</b>
COOPERATION	Transport (including Aeronautics)	118	26	▼ 22.0%	30 340	8 779	<b>28.9%</b>
COOPERATION	Socio-economic sciences and Humanities	218	20	▼ 9.2%	23 830	2 492	<b>10.5%</b>
COOPERATION	Space	38	2	▼ 5.3%	8 277	2 397	<b>29.0%</b>
COOPERATION	Security	121	25	● 20.7%	18 826	3 595	<b>19.1%</b>
COOPERATION	General Activities (Annex IV)	0	0		120	50	<b>41.7%</b>
COOPERATION	Joint Technology Initiatives (Annex IV-SP1)	23	7	▼ 30.4%	15 299	6 277	<b>41.0%</b>
<b>COOPERATION</b>	<b>TOTAL COOPERATION</b>	<b>1 734</b>	<b>263</b>	<b>▼ 15.2%</b>	<b>389 223</b>	<b>82 937</b>	<b>21.3%</b>
IDEAS	European Research Council	164	9	▼ 5.5%	54 789	5 312	<b>9.7%</b>
PEOPLE	Marie-Curie Actions	370	65	▼ 17.6%	111 266	22 530	<b>20.2%</b>
CAPACITIES	Research Infrastructures	56	23	▼ 41.1%	10 677	4 564	<b>42.7%</b>
CAPACITIES	Research for the benefit of SMEs	235	32	▼ 13.6%	48 493	8 426	<b>17.4%</b>
CAPACITIES	Regions of Knowledge	71	26	● 36.6%	3 844	746	<b>19.4%</b>
CAPACITIES	Research Potential	27	4	● 14.8%	3 107	362	<b>11.7%</b>
CAPACITIES	Science in Society	94	21	▼ 22.3%	7 329	1 961	<b>26.8%</b>
CAPACITIES	Coherent development of research policies	3	0	▼ 0.0%	390	89	<b>22.8%</b>
CAPACITIES	Activities of International Cooperation	12	4	▼ 33.3%	3 908	1 476	<b>37.8%</b>
EURATOM	Fusion Energy	0	0		79	65	<b>82.3%</b>
EURATOM	Nuclear Fission and Radiation Protection	43	17	▼ 39.5%	3 113	1 539	<b>49.4%</b>
<b>FP7</b>	<b>TOTAL</b>	<b>2 809</b>	<b>464</b>	<b>▼ 16.5%</b>	<b>636 218</b>	<b>130 007</b>	<b>20.4%</b>

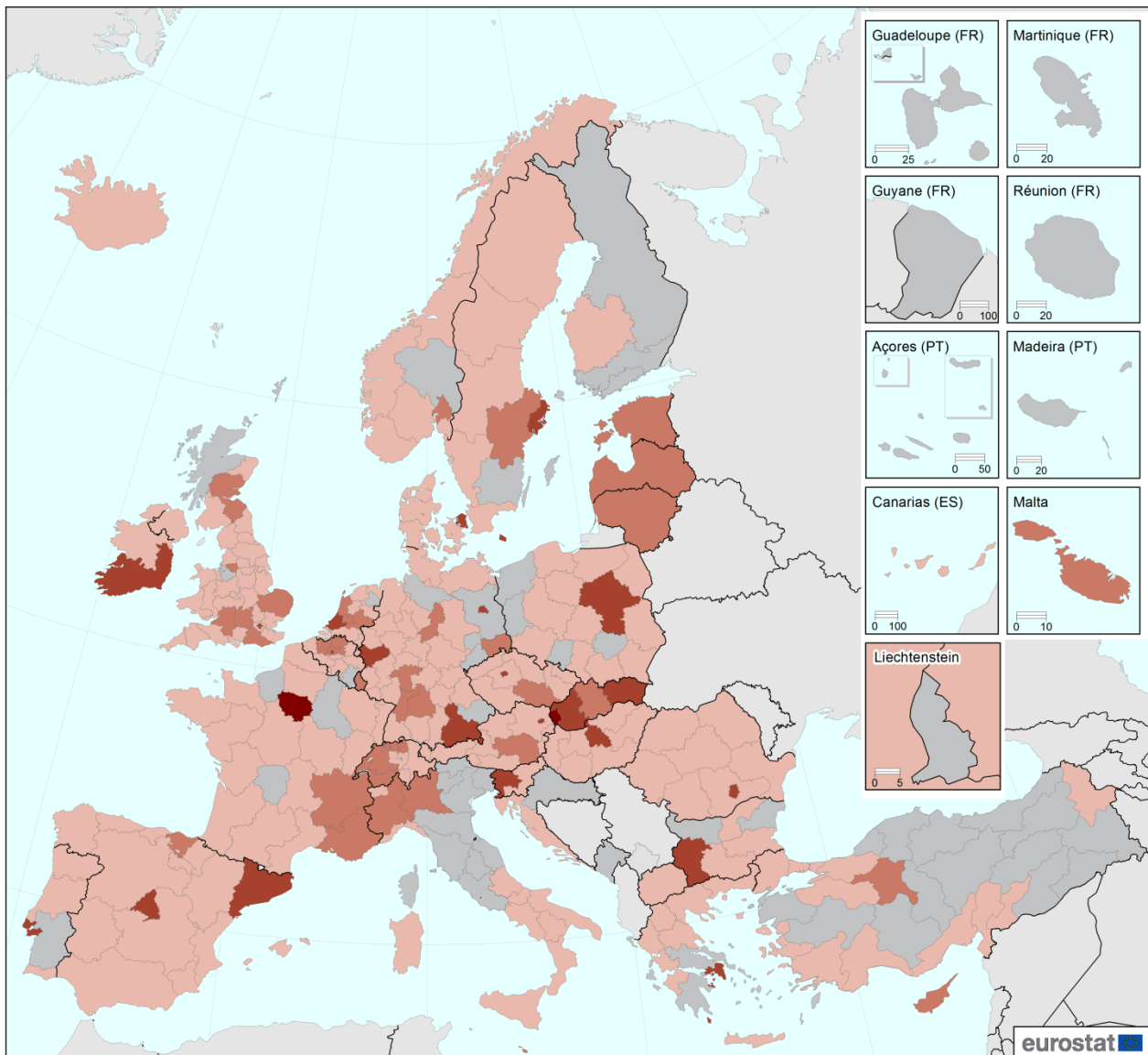
Source: data: FP7 proposals database-Feb 2014. Processed by JRC-IPTS

## 4.2 FP7 Main collaboration axis and stakeholder analysis

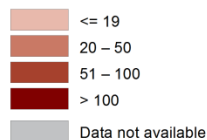
### 4.2.1 From a territorial perspective

The map below shows the European regions (at NUTS2 level) collaborating the most with Slovakia 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 Slovakia collaborates with at least one participant from the other country.

**Figure 8: Origins of organisations collaborating with Slovakia in FP7**

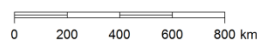


#### Number of collaborations



Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat

Cartography: Eurostat — IMAGE, 06/2015



**Table 15: The first EU regions collaborating with Slovakia in the FP7 programme**

Rank	Code	Country	Nbr of Collaborations
1	FR10	Île de France	156
2	AT13	Wien	98
3	ES30	Comunidad de Madrid	88
4	HU10	Közép-Magyarország	86
5	BE10	Région de Bruxelles-Capitale /	84
6	EL30	Attiki	83
7	NL33	Zuid-Holland	75
8	ES51	Cataluña	75
9	DEA2	Köln	74
10	SE11	Stockholm	72
11	RO32	București - Ilfov	72
12	IE02	Southern and Eastern	72

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 Slovakia in the FP7 when Table 17 shows the leading organisations based in in Slovak Regions.

**Table 16 the leading organisations collaborating with organisations based in Slovakia in FP7**

Legal Name	Theme	Type	NUTS 2	Participations
UJV REZ, a.s.	Nuclear Fission and Radiation Protection	PRC	CZ02	12
INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	Food, Agriculture, and Biotechnology	REC	FR10	10
KATHOLIEKE UNIVERSITEIT LEUVEN	Information and Communication Technologies	HES	BE24	10
INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE	Nuclear Fission and Radiation Protection	REC	FR10	10
CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE FONDATION D'UTILITE PUBLIQUE	Nuclear Fission and Radiation Protection	REC	BE21	9
JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	Environment (including Climate Change)	REC	EU	9
ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE	Information and Communication Technologies	HES	CH01	8
THE PROVOST, FELLOWS, FOUNDATION SCHOLARS	Research Infrastructures	HES	IE02	7
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	Research Infrastructures	REC	FR10	7
Ministrstvo za izobrazevanje, znanost in sport	Nanosciences, Nanotechnologies, Materials and Production Technologies	PUB	SIO2	7
TECHNISCHE UNIVERSITAET WIEN	Information and Communication Technologies	HES	AT13	7
LIETUVOS ENERGETIKOS INSTITUTAS	Nuclear Fission and Radiation Protection	REC	LT00	7
NUCLEAR RESEARCH AND CONSULTANCY GROUP	Nuclear Fission and Radiation Protection	REC	NL32	7
Karlsruher Institut fuer Technologie	Nuclear Fission and Radiation Protection	HES	DE12	7
COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	Nuclear Fission and Radiation Protection	REC	FR10	7

**Table 17 the leading organisations based in Slovakia in FP7**

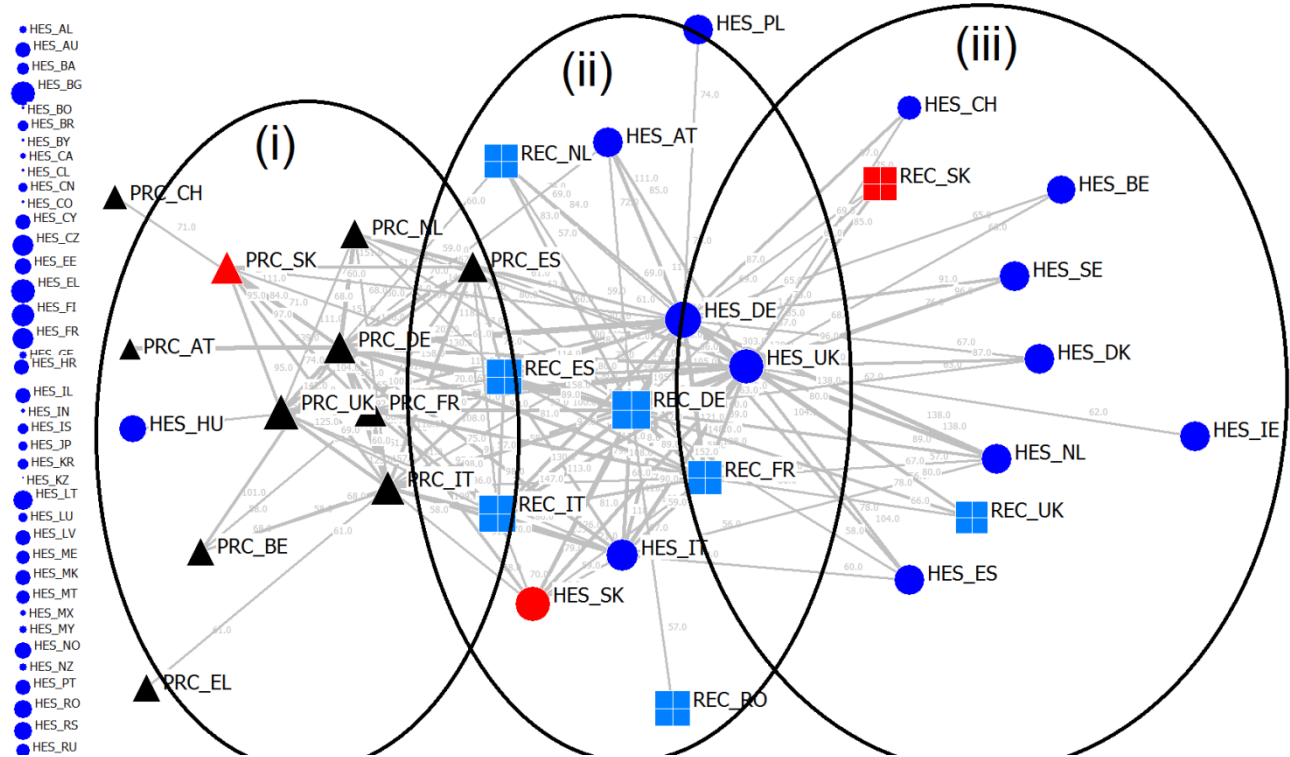
Legal Name	Theme	Type	Region	Participations
ZILINSKA UNIVERZITA V ZILINE	Transport (including Aeronautics)	HES	Stredné Slovensko	13
VUJE AS	Nuclear Fission and Radiation Protection	PRC	Západné Slovensko	12
UNIVERZITA KOMENSKÉHO V BRATISLAVE	Marie-Curie Actions	HES	Bratislavský kraj	9
SLOVENSKA AKADEMIA VIED	Marie-Curie Actions	REC	Bratislavský kraj	8
I-EUROPA SRO	Marie-Curie Actions	PRC	Bratislavský kraj	7
SLOVENSKA TECHNICKA UNIVERZITA V BRATISLAVE	Information and Communication Technologies	HES	Bratislavský kraj	7
TECHNICAL UNIVERSITY KOSICE	Information and Communication Technologies	HES	Východné Slovensko	7
SLOVENSKA TECHNICKA UNIVERZITA V BRATISLAVE	Joint Technology Initiatives (Annex IV-SP1)	HES	Bratislavský kraj	7
Slovenska organizacia pre vyskumne a vyvojove aktivity	Marie-Curie Actions	OTH	Bratislavský kraj	7
SLOVENSKA POL'NOHOSPODARSKA UNIVERZITA V NITRE	Food, Agriculture, and Biotechnology	HES	Západné Slovensko	6
FYZIKALNY USTAV SLOVENSKEJ AKADEMIE VIED	Information and Communication Technologies	REC	Bratislavský kraj	5
INTERSOFT A.S.	Information and Communication Technologies	PRC	Východné Slovensko	5
BROADBIT SLOVAKIA SRO	Information and Communication Technologies	PRC	Západné Slovensko	4
ZILINSKA UNIVERZITA V ZILINE	Security	HES	Stredné Slovensko	4
SLOVENSKA AKADEMIA VIED	Nanosciences, Nanotechnologies, Materials and new Production Technologies	REC	Bratislavský kraj	4

**Figure 9** 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 NUTS2 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 Slovakia, three rather homogeneous sub-networks can be easily identified:

- i. One network with Slovakian firms (PRC) strongly linked to Swiss, Dutch, Spanish, German, and UK firms;
- ii. A second sub-network with Higher education (HES) mostly linked to other European public research organisations but also Private commercial organisations in other countries;
- iii. A third Sub-network with Slovakian Public Research Organisations most strongly linked with Higher education (HES) in the UK and Germany.

**Figure 9 The main collaboration network of Slovakia 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 6.

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

DE	DEUTSCHLAND
UK	UNITED KINGDOM
IT	ITALIA
ES	ESPAÑA
FR	FRANCE
NL	NEDERLAND
BE	BELGIQUE-BELGIË
AT	ÖSTERREICH
SE	SVERIGE
EL	ELLADA
PL	POLSKA
CH	SCHWEIZ/SUISSE/SVIZZERA
HU	MAGYARORSZAG
CZ	CESKA REPUBLIKA
FI	SUOMI / FINLAND
DK	DANMARK
PT	PORTUGAL
IE	IRELAND

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**

		SLOVAKIA			FP7	
		EC contrib. (In €M)	Nbr of part.		EC contrib. (In €M)	Nbr of part.
TOTAL FP7		49.63	282		27 902.29	85 994
Health		4.19	20		5 515.56	12 523
Biotechnology, generic tools and medical technologies for human health	SK	0.59	2	FP7	2 377.05	4 377
High-throughput research	SK	0.00	0	FP7	157.93	306
Detection, diagnosis and monitoring	SK	0.00	0	FP7	272.30	577
Suitability, safety, efficacy of therapies	SK	0.34	1	FP7	117.78	204
Innovative therapeutic approaches and interventions	SK	0.00	0	FP7	457.80	833
Integrating biological data and processes: large-scale data gathering, systems biology	SK	0.25	1	FP7	647.92	1 190
JTI-IMI (Innovative Medicines Initiative)	SK	0.00	0	FP7	723.31	1 267
Translating research for human health	SK	3.31	13	FP7	2 356.65	5 429
Research on the brain and related diseases, human development and ageing	SK	0.40	1	FP7	518.12	1094
Translational research in major infectious diseases: To confront major threats to public health	SK	1.68	6	FP7	764.08	1751
Translational research in other major diseases	SK	1.23	6	FP7	1 074.45	2584
Optimising the delivery of healthcare to European citizens	SK	0.29	4	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	SK	0.00	0	FP7	106.73	361
Quality, efficiency and solidarity of healthcare systems including transitional health systems	SK	0.15	3	FP7	99.32	375
Health promotion and prevention	SK	0.14	1	FP7	81.77	323
International public health & health systems	SK	0.00	0	FP7	86.37	289
Specific international cooperation actions for health system research	SK	0.00	0	FP7	24.87	74
Other Actions across the Health Theme	SK	0.00	1	FP7	382.80	1295
Coordination and Support Actions across the Theme	SK	0.00	0	FP7	46.70	436
Responding to EU policy needs	SK	0.00	1	FP7	192.51	638
Specific International Cooperation Actions (SICA)	SK	0.00	0	FP7	49.36	139
Horizontal topics for collaborative projects relevant for the whole of theme health	SK	0.00	0	FP7	94.24	82
Food, Agriculture and Fisheries, and Biotechnology	SK	4.11	28	FP7	1 841.70	7847
Sustainable production and management of biological resources from land, forest, and aquatic environment	SK	0.59	6	FP7	452.65	2164
Increased sustainability of all production systems (agriculture, forestry, fisheries and aquaculture); plant health and crop protection	SK	0.29	2	FP7	326.56	1557
Optimised animal health production and welfare across agriculture, fisheries and aquaculture	SK	0.29	4	FP7	126.09	607

Fork to farm: Food (including seafood), health and well being	SK	1.14	8	FP7	571.52	2304
The Ocean of Tomorrow	SK	0.00	0	FP7	70.04	217
Consumers	SK	0.00	0	FP7	39.78	142
Nutrition	SK	0.47	2	FP7	149.25	493
Food processing	SK	0.00	0	FP7	127.13	590
Food quality and safety	SK	0.44	4	FP7	101.10	467
Environmental impacts and total food chain	SK	0.23	2	FP7	84.21	395
Life sciences, biotechnology and biochemistry for sustainable non-food products and processes	SK	2.02	7	FP7	564.90	1832
Novel sources of biomass and bioproducts	SK	0.00	0	FP7	110.98	391
Marine and fresh-water biotechnology (blue biotechnology)	SK	0.00	0	FP7	125.95	413
Industrial biotechnology: novel high added-value bio-products and bio-processes	SK	0.31	1	FP7	114.61	328
Biorefinery	SK	0.51	3	FP7	78.68	227
Environmental biotechnology	SK	1.01	2	FP7	58.30	268
Emerging trends in biotechnology	SK	0.18	1	FP7	76.38	205
Other activities	SK	0.37	7	FP7	252.64	1547
Socio-economic research and support to policies and Cross cutting activities	SK	0.37	7	FP7	252.64	1547
Information and Communication Technologies	SK	11.41	62	FP7	7 874.97	23202
Pervasive and Trustworthy network and service infrastructures	SK	2.95	12	FP7	1 987.50	5557
Cognitive systems, interaction, robotics	SK	0.12	1	FP7	615.93	1220
Components, systems, engineering	SK	0.50	6	FP7	810.22	2398
Digital libraries and content	SK	0.60	5	FP7	644.08	1790
ICT for mobility, environmental sustainability and energy efficiency	SK	2.76	10	FP7	842.77	2695
ICT for Health, Ageing Well, Inclusion and Governance	SK	1.68	12	FP7	883.60	2650
Future and emerging technologies	SK	1.80	10	FP7	1 466.65	3983
Horizontal Actions	SK	0.65	4	FP7	64.38	545
ICT for the Enterprise and Manufacturing	SK	0.35	2	FP7	216.75	523
ICT for Learning and Access to Cultural Resources	SK	0.00	0	FP7	171.24	495
International Cooperation	SK	0.00	0	FP7	36.05	307
JTI-ARTEMIS (Embedded Computing Systems)	SK	0.00	0	FP7	135.81	1039
Nanosciences, Nanotechnologies, Materials and new Production Technologies - NMP	SK	9.17	55	FP7	3 707.95	11548
Nanosciences and Nanotechnologies	SK	0.87	6	FP7	771.56	2457
Materials	SK	2.21	10	FP7	742.04	2226
New production processes	SK	0.79	5	FP7	490.01	1525
Integration of nanotechnologies for industrial applications	SK	2.81	15	FP7	594.25	2121
JTI-ENIAC (Nanoelectronics Technologies 2020)	SK	0.58	12	FP7	468.96	1349
Recovery Package: Public-Private Partnership (PPP) topics within NMP	SK	1.91	7	FP7	641.14	1870



Energy	SK	5.40	21	FP7	2 094.31	5422
Hydrogen and fuel cells	SK	0.00	0	FP7	2394	69
JTI-FCH European Hydrogen and Fuel Cell Technology Platform)	SK	0.00	0	FP7	41567	1186
Renewable electricity generation	SK	0.78	2	FP7	47352	998
Renewable fuel production	SK	0.11	2	FP7	239.19	508
Renewables for heating and cooling	SK	0.00	0	FP7	59.28	174
CO2 capture and storage technologies for zero emission power generation	SK	0.04	1	FP7	145.80	478
Clean coal technologies	SK	0.61	2	FP7	58.13	130
Cross-cutting actions between activities Energy-5 and Energy-6	SK	0.13	1	FP7	27.99	84
Smart energy networks	SK	0.30	3	FP7	261.24	654
Energy efficiency and savings	SK	3.32	9	FP7	221.38	551
Knowledge for energy policy making	SK	0.00	0	FP7	17.82	115
Horizontal programme actions	SK	0.13	1	FP7	150.35	475
Environment (including Climate Change)	SK	3.14	22	FP7	1 719.15	7131
Pressures on environment and climate	SK	0.48	8	FP7	360.13	1587
Sustainable management of resources	SK	0.34	3	FP7	276.87	1106
Environmental technologies	SK	0.43	2	FP7	290.21	1404
Earth observation and assessment tools for sustainable development	SK	0.40	2	FP7	160.60	810
Horizontal activities	SK	0.06	1	FP7	16.72	152
Coping with climate change	SK	0.00	0	FP7	146.51	399
Sustainable use and management of land and seas	SK	1.34	5	FP7	139.29	450
Improving resource efficiency	SK	0.00	0	FP7	169.03	580
Protecting citizens from environmental hazards	SK	0.00	0	FP7	86.87	270
Mobilising environmental knowledge for policy, industry and society	SK	0.09	1	FP7	72.92	373
Aeronautics and air transport	SK	0.79	10	FP7	1 004.78	3174
Green Aircraft	SK	0.00	0	FP7	295.55	827
Time Efficient Air Transport Operations	SK	0.07	2	FP7	40.45	108
Aircraft Safety	SK	0.00	0	FP7	150.26	401
Aircraft Operational Cost	SK	0.47	2	FP7	385.95	1034
Operational Security	SK	0.06	1	FP7	13.48	45
Promising Pioneering Ideas in Air Transport	SK	0.00	0	FP7	81.68	307
CROSS-CUTTING ACTIVITIES for implementation of the sub-theme programme	SK	0.19	5	FP7	35.41	434
JTI-CLEAN SKY (Aeronautics and Air Transport)	SK	0.00	0	FP7	2.00	18
Space	SK	0.12	4	FP7	784.60	3203
Space-based applications at the service of the European Society	SK	0.05	2	FP7	350.86	1245
Research to support space science and exploration	SK	0.00	0	FP7	248.28	979
International Cooperation	SK	0.01	1	FP7	109.56	400
GALILEO/Exploiting the Full Potential	SK	0.07	1	FP7	48.23	386
GALILEO/Adapting Receivers to Requirements and Upgrading Core Technologies	SK	0.00	0	FP7	13.94	69

GALILEO/Supporting Infrastructure Evolution	SK	0.00	0	FP7	13.74	124
Sustainable surface transport (INCLUDING THE 'EUROPEAN GREEN CARS INITIATIVE')						
	SK	1.59	13	FP7	1 203.53	5255
Rail	SK	0.00	0	FP7	164.54	766
Road	SK	0.30	3	FP7	287.80	1051
Urban mobility	SK	0.00	0	FP7	142.53	429
Waterborne	SK	0.14	1	FP7	184.66	776
Multimodal	SK	1.07	7	FP7	364.33	1794
Cross cutting activities	SK	0.09	2	FP7	59.67	439
Socio-economic sciences and Humanities						
	SK	2.56	21	FP7	579.55	2766
Growth, employment and competitiveness in a knowledge society	SK	0.40	4	FP7	108.37	473
Combining economic, social and environmental objectives in a European perspective	SK	0.65	4	FP7	117.69	499
Major trends in society and their implications	SK	0.29	3	FP7	93.80	485
Europe in the world	SK	0.15	1	FP7	98.91	432
The Citizen in the European Union	SK	0.67	5	FP7	92.55	397
Socio-economic and scientific indicators	SK	0.33	3	FP7	23.44	150
Foresight activities	SK	0.00	0	FP7	15.88	105
Horizontal Actions	SK	0.08	1	FP7	28.92	225
Security						
	SK	7.13	25	FP7	1 263.49	3741
Increasing the Security of citizens	SK	0.60	4	FP7	235.78	656
Increasing the Security of infrastructures and utilities	SK	0.25	3	FP7	248.96	710
Intelligent surveillance and enhancing border security	SK	0.00	0	FP7	208.72	466
Restoring security and safety in case of crisis	SK	3.03	5	FP7	289.53	733
Improving Security systems integration, interconnectivity and interoperability	SK	2.85	7	FP7	74.50	212
Security and society	SK	0.24	2	FP7	113.39	479
Security Research coordination and structuring	SK	0.15	4	FP7	70.01	398
Security systems integration, interconnectivity and Interoperability	SK	0.00	0	FP7	21.80	83
Horizontal Actions	SK	0.00	0	FP7	0.79	4