

COUNTRY PROFILE



SK - Slovakia

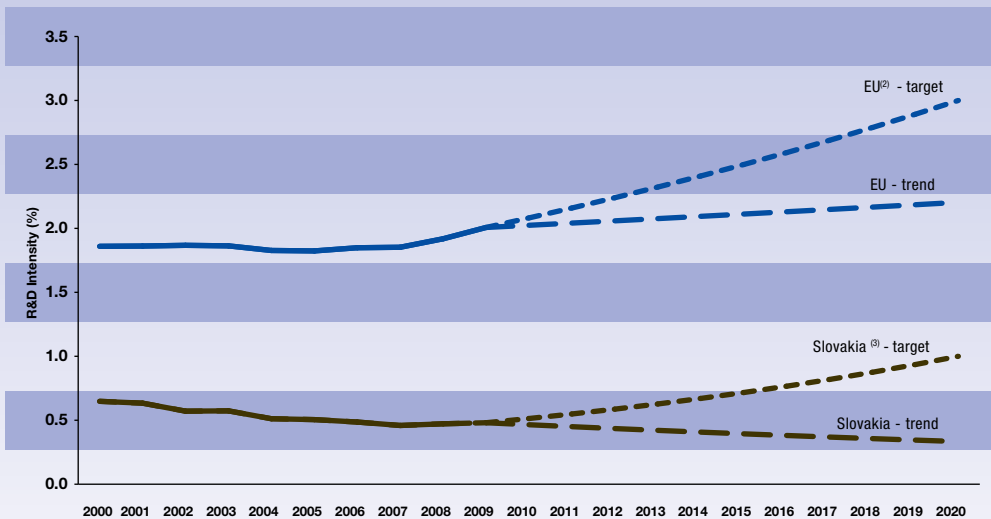
Progress towards meeting the Europe 2020 R&D intensity target

Since the early 1990s, the Slovak Republic has undertaken a radical transformation of its economic and social structures that also affected its research and innovation system. The rise of a dual economy comprising branches of multinational companies with high productivity level and some 60 000 SMEs and few large domestic companies has favoured a system dominated by technology imports and a sharp fall in

traditional in-house R&D. As a result, R&D intensity has steadily declined from a peak of 3.88% in 1989 to 0.48% in 2009. This sharp fall shows a scientific and technological dependency which may jeopardise the long-term growth perspectives of the Slovak economy, particularly once efficiency gains through capital investment are exhausted. In order to correct this situation, the Slovak Republic has set an R&D intensity target of 1% for 2020 which would reverse the last 20-year negative trend.

SLOVAKIA

R&D Intensity projections, 2000-2020⁽¹⁾

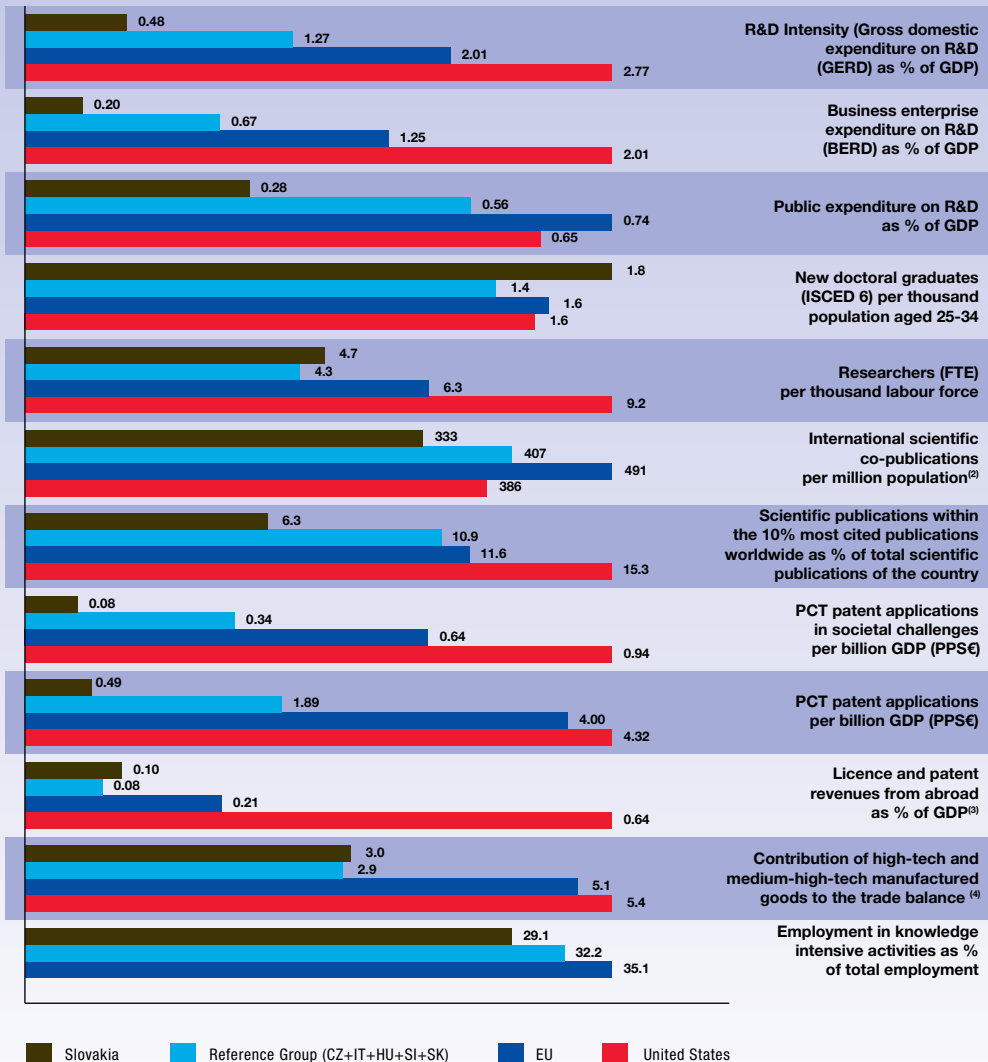


Source: DG Research and Innovation
Data: DG Research and Innovation, Eurostat

Innovation Union Competitiveness Report 2011

Notes: (1) The R&D Intensity projections based on trends are derived from the average annual growth in R&D Intensity 2000-2009.
(2) EU: This projection is based on the R&D Intensity target of 3.0% for 2020.
(3) SK: This projection is based on a tentative R&D Intensity target of 1.0% for 2020.

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R&D profile, 2009⁽¹⁾

Source: DG Research and Innovation

Data: Eurostat, OECD, Science Metrix / Scopus (Elsevier)

Notes: (1) The values refer to 2009 or to the latest available year.

(2) The EU value refers to the median rather than to the average.

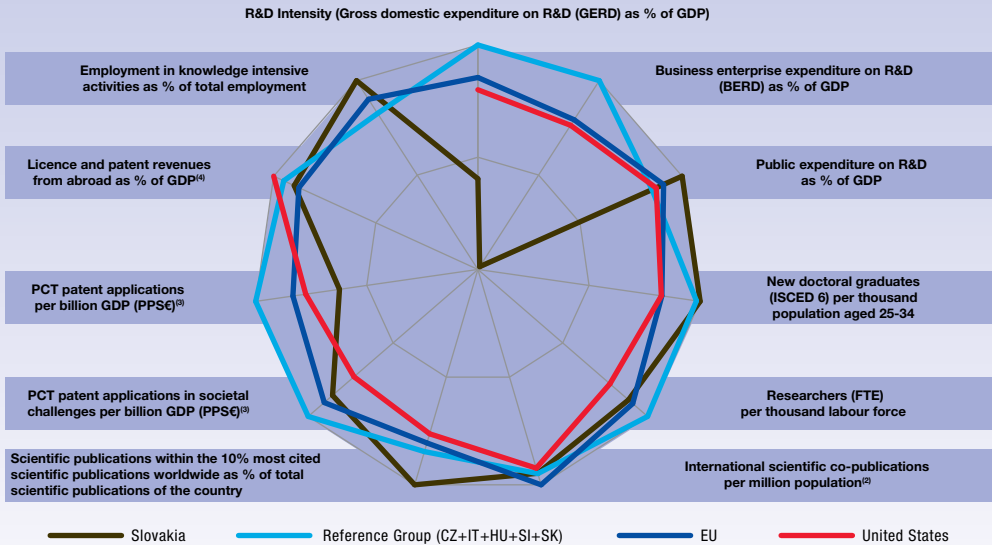
(3) EU refers to extra-EU.

(4) (i) EU does not include BG, CY, LV, LT, MT, RO; (ii) EU refers to extra-EU.

(5) Elements of estimation were involved in the compilation of the data.

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Average annual growth (%), 2000-2009⁽¹⁾

Source: DG Research and Innovation

Data: Eurostat, OECD, Science Matrix / Scopus (Elsevier)

Notes: (1) Growth rates which do not refer to 2000-2009 refer to growth between the earliest available year and the latest available year over the period 2000-2010.

(2) The EU value refers to the median rather than to the average.

(3) Average annual growth refers to real growth.

(4) EU refers to extra-EU.

(5) Elements of estimation were involved in the compilation of the data.

Innovation Union Competitiveness Report 2011

Research and Innovation Performance

The Slovak research and innovation system is characterised by the sharp effects of the economic and social transformations that took place in the 1990s and early 2000s and that radically downsized the system due to falling public and private R&D investments and the associated brain drain of scientists from the public sector. At present, the very low R&D investment, both in the public and private sectors, results in poor scientific and technological production that reinforces the international dependency of the system and hinders its ability to create, use and diffuse knowledge. As a consequence, the transition to a knowledge-based economy may be at stake, as evidenced by the relatively low percentage of people employed in knowledge-intensive activities.

In dynamic terms, the most striking feature is the sharp fall in private R&D investments, in comparison with other countries that may be closer technological and economic competitors, such as the Czech Republic or, to a lesser extent, Slovenia and Hungary. In the longer run, a sustained underinvestment in R&D may endanger

not only the scientific and technological convergence with the EU average, but also Slovakia's long-term competitiveness. There are positive signs, such as dynamic improvement of public expenditure on R&D, scientific quality and new doctoral graduates.

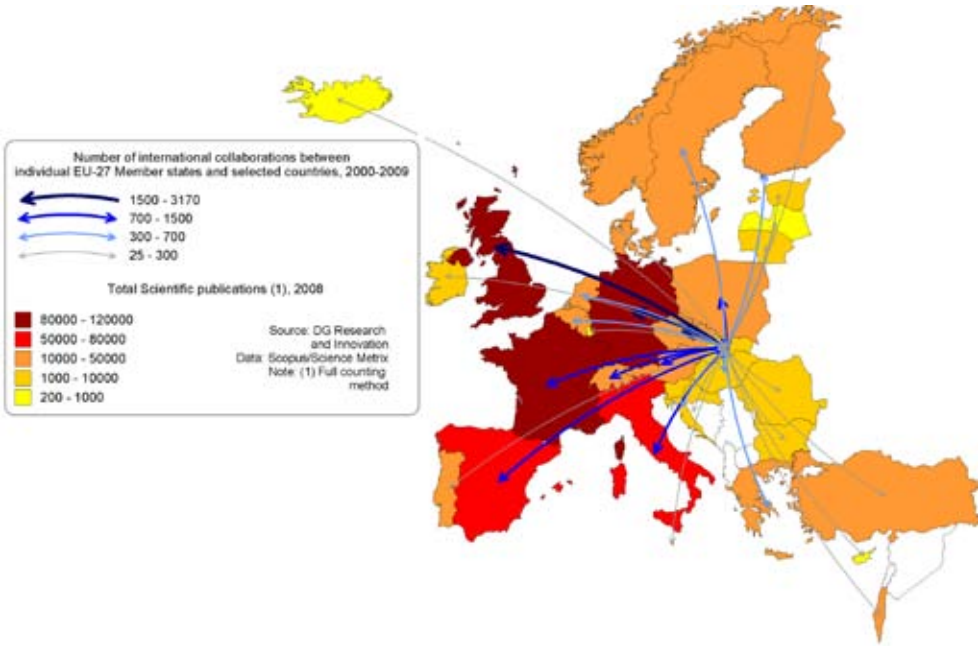
Participation in the European Research Area : Scientific and Technological collaborations

As indicated in the table above, Slovakia is one of the countries with the lowest rates of overall scientific co-publications per million population. This suggests that the country is not actively participating in and benefiting from the international scientific knowledge flows favoured by the construction of the European Research Area. As it could be expected due to the geographical and historical ties, the Czech Republic is one of its main scientific partners.

In terms of co-patenting, the Slovak Republic has a low activity level, but with cooperation also with Germany, France, Switzerland and Finland.

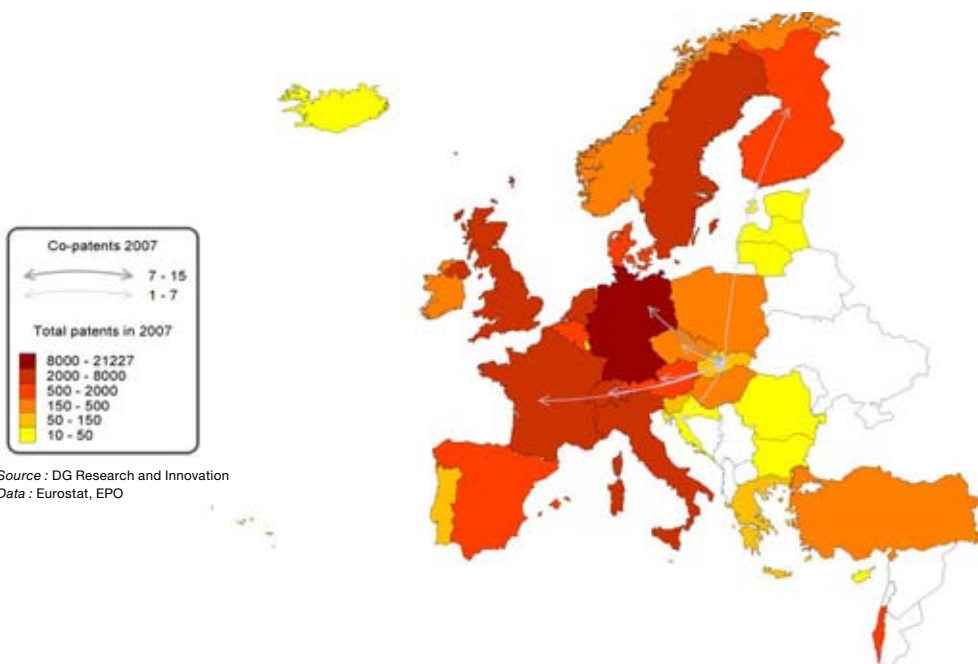
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Co-publications between Slovakia and European Countries in 2000-2009



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Co-invented patent applications between Slovakia and European Countries, 2007



FP7 Key facts and figures

Applications

As of 2011/03/16, a total of

- 1 177 eligible proposals were submitted in response to 248 FP7 calls for proposals
- involving 1 479 applicants from Slovakia (0.55% of EU-27*) and
- requesting EUR 301.74m of EC contribution (0.34% of EU-27*)

Among the EU-27* Slovakia (SK) ranks:

- 21st in terms of number of applicants and
- 22nd in terms of requested EC contribution

Success rates

- The SK applicant success rate of 19.9% is lower than the EU-27* applicant success rate of 21.6%.
- The SK EC financial contribution success rate of 12.8% is lower than the EU-27* rate of 20.7%.

Specifically, following evaluation and selection, a total of

- 230 proposals were retained for funding (19.5%)
- involving 295 (19.9%) successful applicants from Slovakia and
- requesting EUR 38.77m (12.8%) of EC financial contribution

Among the EU-27*, Slovakia (SK) ranks:

- 17th in terms of applicants success rate and
- 20th in terms of EC financial contribution success rate

Signed grant agreements

As of 2011/03/16, Slovakia (SK) participates in

- 205 signed grant agreements
- involving 3 155 participants of which 260

(8.24%) are from Slovakia

- benefiting from a total of EUR 797.01m of EC financial contribution of which EUR 33.24m (4.17%) is dedicated to participants from Slovakia.

Among the EU-27* in all FP7 signed grant agreements, Slovakia (SK) ranks:

- 22nd in number of participations and
- 24th in budget share

SME performance and participation

- The SK SME applicant success rate of 18.26% is lower than the EU-27* SME applicant success rate of 19.33%.
- The SK SME EC financial contribution success rate of 13.46% is lower than the corresponding EU-27* rate of 18.26%.

Specifically,

- 493 SK SME applicants requesting EUR 116.68m
- 90 (18.26%) successful SMEs requesting EUR 15.71m (13.46%)

In signed grant agreements, as of 2011/03/16,

- 49 SK SME grant holders, i.e., 18.85% of total SK participation
- EUR 9.68m, i.e., 29.12% of total SK budget share

Top 3 collaborative links with

- DE - Germany (336)
- UK - United Kingdom (273)
- IT - Italy (228)

**Nr. of Researchers as% of population	0.36%	0.40%	Success rate FP7 EC contribution	12.8%	20.7%
Rank in EU-27*			Nr. of FP7 grant holders (% EU-27*)	260	
Innovation scoreboard (2008)	- 21 st		(0.51%)	51 279	
- Below EU-27 average			EC contribution to FP7 grant holders in EUR million (% EU-27*)	33.24	
- Moderate Innovator			(0.20%)	16 578.15	
Nr. of FP7 applicants (% EU-27*)	1 479		Nr. of FP7 coordinators (% of grant holders)	20	
(0.55%)	266 507		(7.69%)	9 383	
Req. EC contribution by FP7 applicants in EUR million (% EU-27*)	301.74		(18.30%)		
(0.34%)	88 295		Nr. of FP7 SME grant holders (% of grant holders)	49	
Nr. of successful FP7 applicants (% EU-27*)	295		(18.85%)	8 845	
(0.50%)	59 199		(17.25%)		
Req. EC contribution by successful FP7 applicants in EUR million (% EU-27*)	38.77		EC contribution to FP7 SME grant holders in EUR million (% of grant holders)	9.68	
(0.21%)	18 262.02		(29.12%)	2 207.73	
(0.21%)			(13.32%)		
Success rate FP7 applicants	19.9%	21.6%			

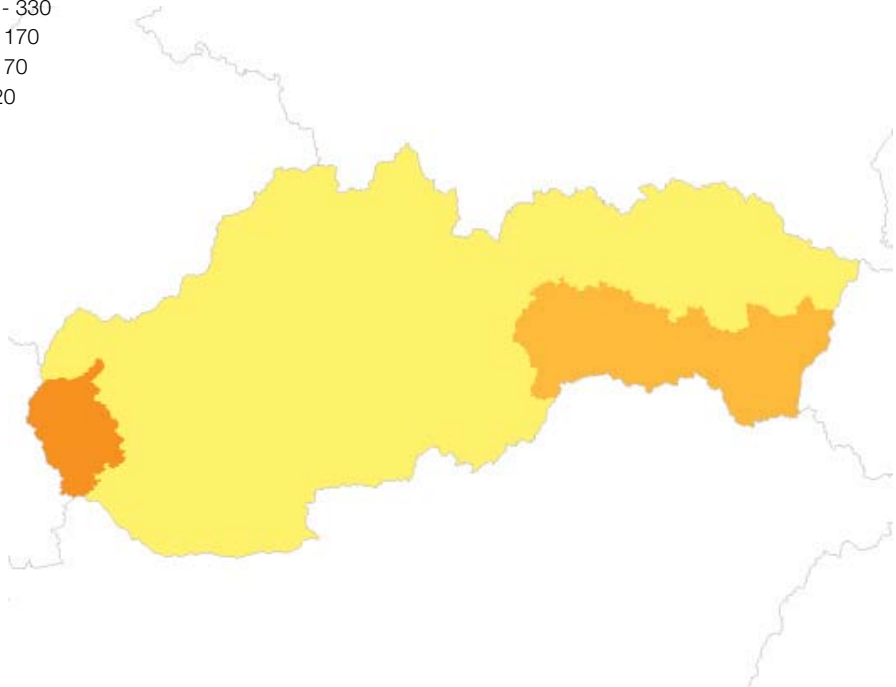
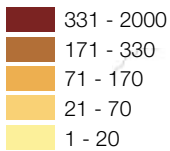


TABLE 1

**SK - Slovakia - Most active FP7 research priority areas
by number of applicants applying for the research projects**

FP7 priority area	Nr. of applicants	Requested EC contribution by applicants (M euro)	Nr. of mainlisted applicants	Success Rate (applicants)	Requested EC contribution by mainlisted applicants (M euro)	Success Rate (requested EC contribution)
Information and Communication Technologies	219	71.42	36	16.44%	8.15	11.41%
Research for the benefit of SMEs	141	17.62	22	15.60%	2.82	16.02%
Marie-Curie Actions	140	n/a	36	25.71%	n/a	n/a
Socio-economic sciences and Humanities	128	17.87	11	8.59%	1.64	9.19%
Environment (including Climate Change)	120	23.82	15	12.50%	1.97	8.25%
Health	101	23.79	14	13.86%	2.70	11.35%

TABLE 2

**SK - Slovakia - Most active FP7 research priority areas
by EC contribution granted to the research projects**

FP7 priority area	Number of grant holders	% of all SK grant holders	EC contribution (EUR million)	% of total EC contribution to SK
Information and Communication Technologies	33	12.69%	5.96	17.92%
Nanosciences, Nanotechnologies, Materials and new Production Technologies - NMP	19	7.31%	3.51	10.57%
Security	8	3.08%	3.41	10.27%
Marie-Curie Actions	32	12.31%	3.30	9.92%
Health	13	5.00%	2.23	6.71%
Research for the benefit of SMEs	18	6.92%	2.20	6.61%

Notes : Report generated on: 2011/03/28.10:50 AM

FP7 proposal and application figures are valid as of 2011/03/16

FP7 grant agreements and participation figures are valid as of 2011/03/16

*EU-27 includes the 27 country-members and JRC as a separate entity

**E-STAT Reference year: 2007

**European Innovation Scoreboard is available at the website of DG Enterprise and Industry

TABLE 3

**SK - Slovakia - Participation in the FP7 research projects
by organisation activity type**

Activity Type	Nr. of applicants	Requested EC contribution by applicants (M euro)	Nr. of mainlisted applicants	Success rate (applicants)	Requested EC contribution by mainlisted applicants (M euro)	Success rate (requested contribution)	Nr. of grant holders	EC contribution to grant holders	% of total EC contribution to grant holders
HES	574	96.22	102	17.77%	11.04	11.47%	82	9.49	28.57%
PRC	352	86.97	73	20.74%	14.14	16.26%	76	11.76	35.38%
REC	277	50.53	59	21.30%	8.50	16.83%	63	9.43	28.38%
OTH	144	30.34	28	19.44%	2.18	7.19%	10	0.29	0.88%
PUB	102	13.39	32	31.37%	2.82	21.04%	29	2.26	6.80%
SME	493	116.68	90	18.26%	15.71	13.46%	49	9.68	29.12%

HES - Higher or secondary education, PRC - Private for profit (excl. education), REC - Research organisations, OTH - Others, PUB - Public body (excl. research and education)

TABLE 4

**SK - Slovakia - The most active NUTS3 regions,
by EC contribution granted to the FP7 research projects**

SK - Slovakia region	Number of grant holders	% of all SK - Slovakia grant holders	EC contribution (M euro)	% of total EC contribution to SK
Bratislavsky kraj (SK010)	137	52.69%	18.43	55.44%
Kosicky kraj (SK042)	39	15.00%	6.00	18.05%
Zilinsky kraj (SK031)	21	8.08%	1.79	5.39%
Trnavsky kraj (SK021)	17	6.54%	1.69	5.08%
Banskobystricky kraj (SK032)	10	3.85%	0.75	2.24%

TABLE 5

**SK - Slovakia - Most active organisations in terms
of EC contribution granted to the FP7 research projects**

Legal Name	Number of Participations	% of all SK grant holders	EC contribution (M euro)	% of total EC contribution to SK grant holders
Technical University Kosice (TUK)	11	4.23%	2.29	6.90%
Ardaco, A.S. (ADO)	5	1.92%	2.23	6.70%
Univerzita Komenskeho v Bratislave (Univerzita Komenskeho)	15	5.77%	1.99	5.99%
Ustav Informatiky, Slovenska Akademia Vied (UI SAV)	5	1.92%	1.76	5.29%
Virologicky Ustav Slovenskej Akademie Vied	5	1.92%	1.54	4.64%