

Stairway to Excellence

Cohesion Policy and the Synergies with the Research and Innovation Funds

Bulgaria (BG)
Facts & Figures
Complementary Regional Indicators





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Please include the following information to reference this report:

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

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Introduction

The regional indicators presented in this document complement the "National Facts and Figures". The regional level focussed on is NUTS22 and key indicators for the regions in the country are provided related to the macro economy, Framework Programme 7 (FP7) and the Structural Funds (2007 – 2013). The document allows the capacity of individual regions to be better understood and the regions place in the national context can be studied when used in conjunction with the national figures. The purpose of this document overlaps with the "National facts and figures" in that it provides data to address the following questions:

- What is the overall position of the territory in terms of FP7 budget captured and Structural funds dedicated to R&I?
- What are the specialisation areas emerging from FP7 participation?
- What are the main R&I stakeholders involved in EU programmes?

These "Complementary Regional Indicators" are provided for those countries for which the regional level has some important but limited relevance. For other countries the regional level is not important and no complementary indicators are provided. For one country, namely Poland, the regional level is important and detailed "Regional facts and figures" are provided.

Macro-economic Indicators

Disparities exist between territories within a country. These disparities impact on the capacity of participants to be involved in EU programmes such as FP7/Horizon 2020, the funding rate of EU regional funding, the funding absorption capacity and specialisation pattern at territorial level.

Table 1 gathers some macro-economic indicators extracted Eurostat in order to characterise the regions.

Table 1: General macro-economic indicators of the Regions in 2011

	GDP per Capita (in EUR)	GDP per capita compar ed to EU average (in %)	R&D expendit ure (in MEUR)	R&D exp. /GDP (in %)	Share of business sector in R&D expenditu re/gdp (In %)	Share of gov sector in R&D expenditur e /gdp (In %)	Share of Higher education sector in R&D expenditur e /gdp (In %)	Share of Private non-profit in R&D expenditur e /gdp (In %)
Severozapaden (BG31)	3,200	13	3.666	0.13	-	0.09	-	0.00
Severen tsentralen (BG32)	3,500	14	4.054	0.14	-	0.03	0.03	-
Severoiztochen(BG33)	4,200	17	9.067	0.22	0.06	0.13	-	-
Yugoiztochen (BG34)	4,300	17	6.997	0.15	0.07	0.05	-	-
Yugozapaden (BG41)	8,800	35	184.348	0.98	0.55	0.34	-	-
Yuzhen tsentralen (BG42)	3,600	14	11.505	0.21	0.09	0.07	-	-

Source: Compiled and calculated by using Eurostat 2011

¹ http://s3platform.jrc.ec.europa.eu/facts-figures

² http://ec.europa.eu/eurostat/web/nuts/overview

Framework Programme 7

Different specialisation patterns emerge from the analysis of the participation of territories in the FP7. The specialisation areas showed in the following table come up from the FP7 participation of beneficiaries based in Regions. Methodology is the following: we consider there is an FP7 specialisation in a specific area when we observe an over-distribution in this area compared to the standardized distribution of the budget in the FP7. The table is result of the comparison of the weight of each theme in the total funding received by the Region/country with the corresponding weight in the whole FP7.

Table 2: FP7 specialisation at regional level (Nuts 2)

	Severozapa- den (BG31))	Severen tsentralen (BG32)	Severoiztoc- hen (BG33)	Yugoizto- chen (BG34)	Yugozapa- den (BG41)	Yuzhen tsentralen (BG42)	Bulgaria
Food, Agriculture and Fisheries			X	Х	X	Х	Х
Biotechnology					X	X	Χ
Health							
Information & communication technologies (ICT)		X		X	X	X	Χ
Nanosciences & Nanotechnologies			X		X		
Materials			Х				
New production technologies	X	X					
Integration of nanotechnologies for ind.l app							
Energy		Х					
Environment			X		X		
Aeronautics						X	Х
Space			Х		X		
Automotive		X					
Rail							
Waterborne			Х				
Urban transport and intermodalities			Х		X		Х
Socio economic sciences and humanities			Х		Х	Х	
Security		Х			Х		

Source: EC FP7 contract database June 2014

The following table show the four first organisations based in each Region in terms of number of funded participations in the FP7.

Table 3: The 4 first organisations at regional level

Severozapaden	NAME	TYPE
(BG31)	KOZLODUY NPP PLC	PRC
	CHAMBER OF COMMERCE AND INDUSTRY VRATSA (one participation)	OTH
	Fashion Agency Mirage LTD (Modna Agenciq Miraj ODD) (one participation)	PRC
	KOZLODUY NPP PLC (one participation)	PRC
Severen	NAME	TYPE
tsentralen (BG32)	UNIVERSITY OF RUSE ANGEL KANCHEV	HES
	BDZH-PUTNICHESKI PREVOZI EOOD (one participation)	PRC
	BILBOBUL OOD (one participation)	PRC
	BULGARIAN RIVER SHIPPING JSC (one participation)	PRC
Severoiztochen	NAME	TYPE
(BG33)	INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES	REC
	TECHNICAL UNIVERSITY OF VARNA	HES
	Medical University Of Varna	HES
	MICROSYSTEMS LTD	PRC
Yugoiztochen	NAME	TYPE
(BG34)	TRAKIYSKI UNIVERSITET	HES
	AGROCONSULT-ENGINEERING EOOD (one participation)	PRC
	BURGAS FREE UNIVERSITY (one participation)	HES
	CHAMBER OF COMMERCE AND INDUSTRY OF STARA ZAGORA BULGARIA* (one participation)	OTH
Yugozapaden	NAME	TYPE

(BG41)	SOFIISKI UNIVERSITET SVETI KLIMENT OHRIDSKI	HES
	INSTITUTE OF INFORMATION AND COMMUNICATION TECHNOLOGIES	HES
	TECHNICAL UNIVERSITY OF SOFIA	HES
	INSTITUTE OF NUCLEAR RESEARCH AND NUCLEAR ENERGY - BULGARIAN ACADEMY OF SCIENCES	REC
Yuzhen tsentralen	NAME	TYPE
(BG42)	UNIVERSITY OF PLOVDIV	HES
	AGRICULTURAL UNIVERSITY	HES
	MEDICAL UNIVERSITY PLOVDIV	HES
	University of Food Technologies	HES

Source: EC FP7 contract database June 2014

The following table shows the four first partners of the Region based outside of the Country.

Table 4: The 4 first EU partners

Severozapaden	NAME	TYPE	REGION
Severen tsentralen (BG32) Severoiztochen (BG33) Yugoiztochen (BG34)	UNIVERZITA KARLOVA V PRAZE	HES	CZ01
	CESKE VYSOKE UCENI TECHNICKE V PRAZE	HES	CZ01
	VYSOKA SKOLA CHEMICKO-TECHNOLOGICKA V PRAZE	HES	CZ01
	TECHNOLOGICKE CENTRUM AKADEMIE VED CESKE REPUBLIKY	REC	CZ01
Severen	NAME	TYPE	REGION
	CLUB YOUNG SCIENTISTS	OTH	BG41
(BG32)	TRAKIYSKI UNIVERSITET	HES	BG34
	TECHNICAL UNIVERSITY OF SOFIA	HES	BG41
	RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN	HES	DEA2
Severoiztochen	NAME	TYPE	REGION
(BG33)	HELLENIC CENTRE FOR MARINE RESEARCH	REC	EL30
	CONSIGLIO NAZIONALE DELLE RICERCHE	REC	ITI4
	HAVFORSKNINGSINSTITUTTET	REC	N005
	ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE	REC	ITH4
	NAME	TYPE	REGION
(BG34)	CLUB YOUNG SCIENTISTS	OTH	BG41
	TECHNICAL UNIVERSITY OF SOFIA	HES	BG41
	UNIVERSITY OF RUSE ANGEL KANCHEV	HES	BG32
	UNIVERSITY OF PLOVDIV	HES	BG42
Yugozapaden	NAME	TYPE	REGION
(BG41)	TURKIYE BILIMSEL VE TEKNOLOJIK ARASTIRMA KURUMU	REC	TR51
	AGENZIA PER LA PROMOZIONE DELLA RICERCA EUROPEA	REC	ITI4
	JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION	REC	EU
	INSTYTUT PODSTAWOWYCH PROBLEMOW TECHNIKI POLSKIEJ AKADEMII NAUK	REC	PL12
Yuzhen tsentralen (BG42)	NAME	TYPE	REGION
	UNIVERSITY OF RUSE ANGEL KANCHEV	HES	BG32
	CLUB YOUNG SCIENTISTS	OTH	BG41
	INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE	REC	FR10
	TRAKIYSKI UNIVERSITET	HES	BG34

Source: EC FP7 contract database June 2014

Structural Funds

There are no regional operational programmes for Bulgaria 2007-2013. Therefore, the funding for Research and Technological Development, Innovation and Entrepreneurship (RTDI) is associated with National OPs and is addressed in the "Bulgaria: Facts and Figures" report.

However, **Table 5** shows estimations for regional funding by 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

Regional analysis is undertaken at the NUTS2 level. The Operational Programmes (OPs) can be national, regional and in some cases multi-regional. This can present problems as while the regional OPs mean that the funding can be assigned to the NUTS2 region for the national OPs this was frequently not the case with only the national level indicated or a NUTS1 region.

In order to have an idea of the total RTDI funding allocated to projects in a region the national or NUTS1 funding was disaggregated based on the appropriate population proportions for the NUTS2 region. Therefore, the figures in **Table 5** are based on the assumption that the funding allocated is proportional to the population and are therefore estimations intended to provide an approximation of the funding breakdown.

Table 5: Estimated funding allocated to projects by region and priority theme

	Estimated funding by priority theme M€										
Region	01 R&TD activitie s in researc h centres	02 R&TD infrastr ucture and centres of compet ence in a specific technol ogy	O3 Technol ogy transfe r and improv ement of cooper ation networ ks	04 Assista nce to R&TD, particul arly in SMEs	O5 Advanc ed support service s for firms and groups of firms	O6 Assista nce to SMEs for the promoti on of environ mentall y- friendly product s	07 Invest ment in firms directly linked to researc h and innovat ion	08 Other invest ment in firms	09 Other measur es to stimula te researc h and innovat ion	74 Develo ping human potenti al in the field of researc h and innovat ion	Regional Total M€
Severozapaden (BG31)	0	3.0	5.0	14.6	9.5	0.1	3.8	40.8	10.6	5.9	93.4
Severen tsentralen (BG32)	0	3.1	5.2	15.0	9.8	0.1	3.9	41.9	10.9	6.0	95.8
Severoiztochen (BG33)	0	3.5	5.8	17.0	11.1	0.2	4.4	47.5	12.3	6.8	108.6
Yugoiztochen (BG34)	0	3.9	6.5	18.9	12.4	0.2	4.9	53.0	13.8	7.6	121.2
Yugozapaden (BG41)	0	7.9	13.0	37.8	24.7	0.3	9.7	105.6	27.4	15.2	241.5
Yuzhen tsentralen (BG42)	0	5.4	8.9	25.9	16.9	0.2	6.7	72.5	18.8	10.4	165.9
Priority Total M€	0	26.9	44.5	129.2	84.4	1.1	33.3	361.2	93.8	51.9	826.4

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