

**Final Report:
Case Study Saxony, Germany**

Work Package 9: Rural Development

Ex post evaluation of Cohesion policy programmes 2000-2006 co-financed by the European Fund for Regional Development (Objective 1 and 2)

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1 Profile of the Objective 1 Region of Saxony

1.1 European and national context of the region

The Free State of Saxony is one of the new Länder located in the east of Germany bordering on Poland and the Czech Republic. Since the expansion of the EU in May 2004, the position of the Free State of Saxony changed from the periphery to the centre of the EU and gained higher importance as a tie from the new Member States to the old ones.

Map 1. Location of the Free State of Saxony in the Federal Republic of Germany



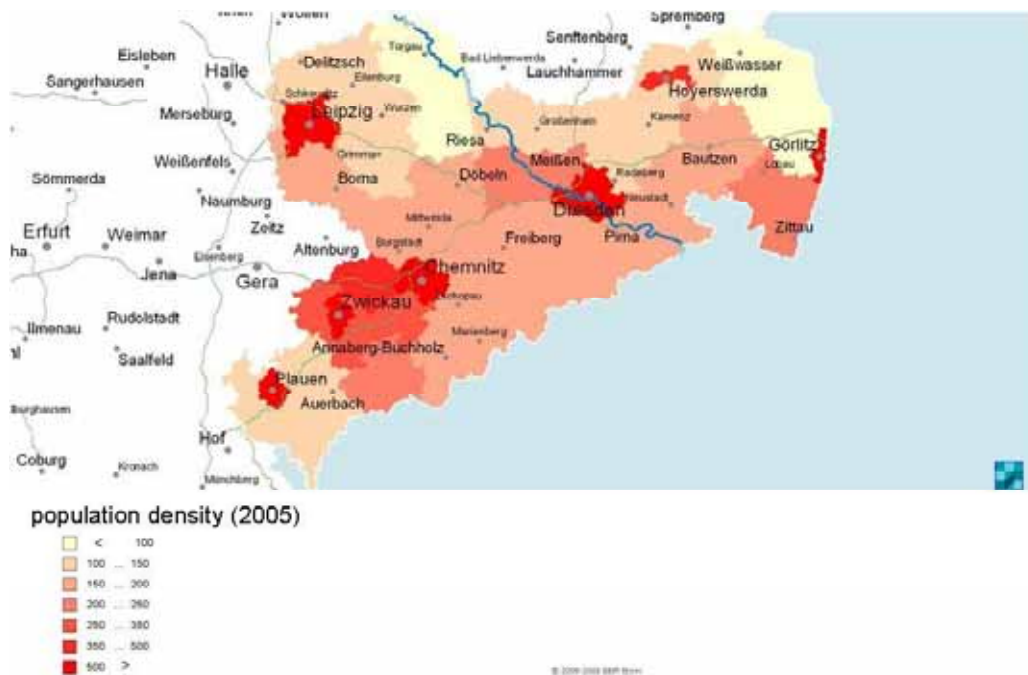
Source: Bundesamt für Bauwesen und Raumordnung (BBR)

The administration of the Free State of Saxony is a three-tier system. The first tier is the state government with the regional parliament and the state ministries, the second are the three administrative regions Chemnitz, Dresden and Leipzig which are at NUTS 2 level and the third the NUTS 3¹ level with its 22 administrative districts and seven cities (Chemnitz, Dresden, Görlitz, Hoyerswerda, Leipzig, Plauen and Zwickau). The NUTS 2 regions of Chemnitz and Dresden are part of the EU convergence regions, the NUTS 2 region of Leipzig is a phasing-out region.

1.2 Population development and settlement patterns

The Free State of Saxony is the fourth most densely populated state in Germany with 229 inhabitants per km² (2008). The population density is very unevenly distributed: Whereas the cities of Chemnitz, Dresden, Görlitz, Hoyerswerda, Leipzig, Plauen and Zwickau have a population density of more than 850 inhabitants per km², more peripheral districts like the Niederschlesische Oberlausitzkreis on the border to Poland in the east and the district Torgau-Oschatz in the north have a population density of 72 and 82 per km² respectively.

Map 2. Population density in Saxony in districts and cities (2005)



Source: BBR INKAR

¹ Annaberg, Aue-Schwarzenberg, Bautzen, Chemnitz Stadt, Chemnitzer Land, Delitzsch, Dresden Stadt, Döbeln, Freiberg, Görlitz Stadt, Hoyerswerda Stadt, Kamenz, Leipzig Stadt, Leipziger Land, Löbau-Zittau, Meißen, Mittlerer Erzgebirgskreis, Mittweida, Muldentalkreis, Niederschlesischer Oberlausitzkreis, Plauen Stadt, Riesa-Großenhain, Stollberg, Sächsische Schweiz, Torgau-Oschatz, Vogtlandkreis, Weißeritzkreis, Zwickau Stadt, Zwickauer Land.

The biggest cities in Saxony are the cities of Leipzig (506,578) and Dresden (504,795). Together with the other cities of Chemnitz (245,700), Zwickau (96,786), Plauen (68,430), Görlitz (57,111) and Hoyerswerda (41,562), 1,520,962 inhabitants or 36% of the population of Saxony live in cities (census 31.12.2006).²

Since 1990, the population of Saxony decreased from 4.77m inhabitants to 4.22m in 2007 (-12%). Especially the NUTS2 region of Chemnitz suffered from high population loss with a decrease of 16% from 1.78m in 1990 to 1.5m in 2007. In the Dresden region the population decreased by 10% and in the Leipzig region by 8%. This trend is affected by the natural population change and by migration, especially of young people.³

Table 1. Population development in Saxony (1990 – 2007) - inhabitants (in 1000)

Year	NUTS2 Chemnitz	NUTS2 Leipzig	NUTS2 Dresden	Saxony	New Bundesländer	Germany
1990	1 784	1 161	1 830	4 775	16 028	79 753
1995	1 693	1 111	1 761	4 566	15 476	81 817
2000	1 621	1 091	1 712	4 425	15 119	82 260
2005	1 537	1 074	1 662	4 273	16 740	82 438
2006	1 520	1 072	1 657	4 249	16 648	82 351
2007	1 503	1 069	1 646	4 220	-	-

Source: Statistisches Bundesamt und Landesamt Sachsen

This population decrease is typical for all new Länder. Whereas the total population in Germany increased by 3.3% from 1990 to 2005, since 2005 there has been a trend reversal and the population has decreased slightly at federal level.⁴

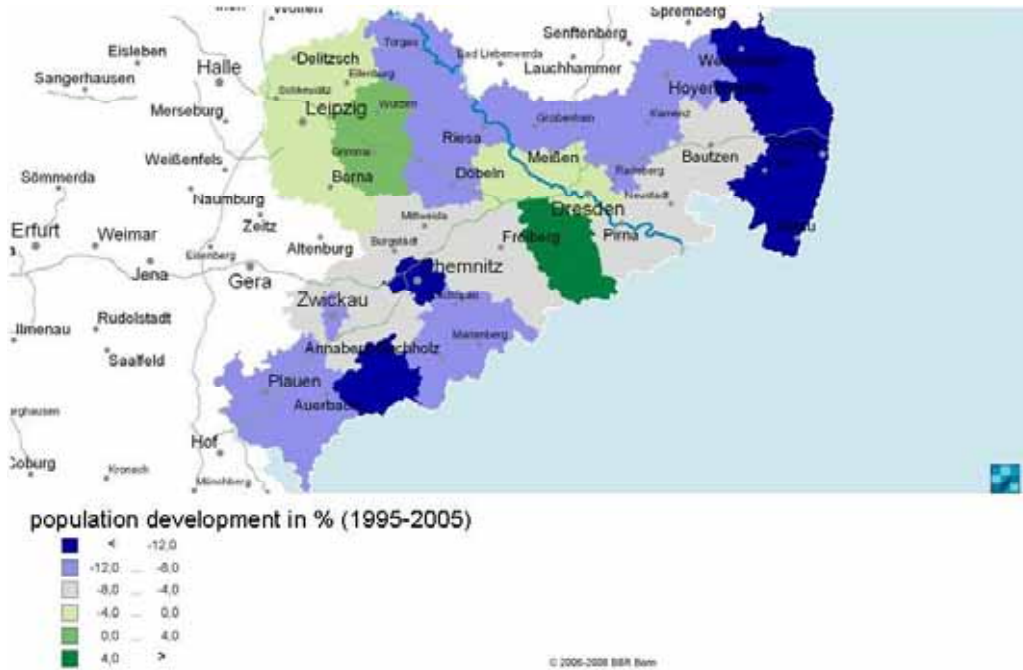
However, not all Saxonian regions faced a population decrease. Smaller areas around Leipzig and Dresden had a population increase between 1995 and 2005: the district of Weißeritz +6.2%, the district of Muldenthal a +0.8%, because of suburbanisation effects.

² Statistisches Landesamt Sachsen: Bevölkerung http://www.statistik.sachsen.de/21/02_01/02_01_23a_tabelle.asp (10.09.2008).

³ Freistaat Sachsen (2007b): Operationelles Programm des Freistaat Sachsen. p. 63.

⁴ Statistisches Bundesamt (2008): Statistisches Jahrbuch 2007; Kapitel Bevölkerung. p. 35.

Map 3. Population development in the districts and cities of Saxony (1995-2005)



Source: BBR INKAR

Moreover, Saxony has a severe problem with the aging of the population: The share of 0-15 year olds decreased from 11.4% in 2002 to 10.5% in 2007, whereas the share of people over 65 increased from 20% in 2002 to 23.6% in 2007.⁵

In future, the region will still face the problem of population decrease and aging. The share of 0-15 year olds is predicted to decrease by 5-10% by 2020 and the share of over 65 year olds will increase by 30% by 2020.⁶

Like almost all new Länder, Saxony will face an additional population decline till 2020 because of emigration towards West Germany and decreasing birth rates. However, the developments will show huge regional differences. The more peripheral districts of Saxony, especially in the east and southwest, will face a high population decrease up to -20%, mainly because of out-migration based on a lack of job opportunities. The future perspectives especially in the east of Saxony are very low because of a high rate of unemployment (more than 20%) and negative growth of GDP (for details see tables and maps below). The remaining 'winners' will be the urban agglomerations with a slight increase in the environs of Leipzig and Dresden until 2020. , Only the more dynamic urban regions are attractive enough for immigration(see Map 3 above).

⁵ Statistisches Landesamt Sachsen: Bevölkerung: http://www.statistik.sachsen.de/21/02_02/02_02_072_tabelle.asp (10.09.2008).

⁶ Statistisches Landesamt Sachsen: Bevölkerungsentwicklung: http://www.statistik.sachsen.de/21/02_02/02_02_08_tabelle.asp (10.09.2008).

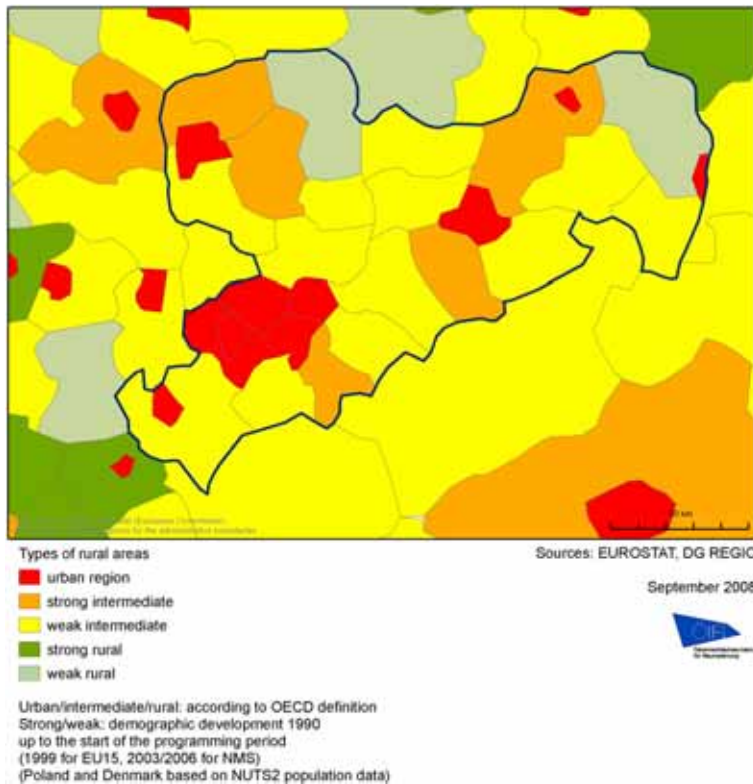
1.3 Rural areas in Saxony

Regarding the rural typology for WP 9 on NUTS 2 level, Saxony is fully classified as weak intermediate.

The classification on NUTS 3 level

According to the WP9 typology at NUTS 3 level, the cities and three other districts in the surroundings of the cities of Chemnitz and Zwickau are classified as urban regions. The districts around the cities of Leipzig or Dresden are classified as strong intermediate. 12 of the 22 districts are classified as weak intermediate. The Niederschlesische Oberlausitzkreis district in the north of Saxony and the Torgau Oschatz district in the east on the border to Poland are the only weak rural regions. There are no strong rural regions – according to the WP9 typology – in Saxony.

Map 4. Urban-rural typology in Saxony



The weak rural regions next to the border to Poland are strongly influenced by their location next to the former non-EU country. The big cities in Saxony are classified as urban regions and also represent the major growth poles of Saxony. A good infrastructure supports commuting from the rural regions to the cities. The lack of strong rural regions hints at the problems of economic growth processes which often start in the cities and not in the rural areas.

Spatial Development Plan Saxony 2003

The rural areas in Saxony mainly contain rural communities with a low density but also scattered urban communities which are essential for the functioning of rural areas. Rural areas offer a basis for food, ecology, culture and recreation for the population of Saxony. According to the *Landesentwicklungsplan 2003* (Spatial Development Plan 2003), rural areas cover approximately 75% of the Free State and approximately 35% of the population (not including the densely populated areas within the rural areas). There are only four densely populated areas: Dresden, Leipzig, and Chemnitz/Zwickau. The Spatial Development Plan for Saxony defines three spatial categories: densely populated areas, densely populated areas within rural areas and rural areas:⁷

- Densely populated areas are characterised by the following criteria: population density: >300 inhabitants/km²; settlement density: > 2,000 inhabitants/km² settlement and traffic area; share of settlement and traffic area > 10% of the total area, dominance of the labour and provision related functions to the core of the densely populated area.
- Densely populated areas within rural areas must meet two of the above mentioned four criteria. Furthermore they must have more than 60,000 inhabitants and include a town that is categorised as a High Order or Middle Order Centre
- Rural areas are all areas which are not part of the two above mentioned categories.

The densely populated areas are highly correlating with the urban regions of the WP-typology as well as the weak rural regions of WP 9 with the rural areas according to the Spatial Development Plan. The weak and strong intermediate regions are covering both densely populated areas within rural areas as well as rural areas.

⁷ Densely populated areas: population density: >300 inhabitants/km²; settlement density: > 2.000 inhabitants/km² settlement and traffic area; share of settlement and traffic area > 10%, dominance of the labour and provision related functions to the core of the densely populated area. Densely populated areas within rural areas: two of the above mentioned four criteria has to be fulfilled and the densely populated areas in rural areas have also to fulfil the criteria of 60.000 inhabitants and existence of a High Order or Middle Order Centre.

2 The role of EU Funds in rural development in Saxony

2.1 General framework of the ERDF and the other funds

This chapter provides an overview of the implementation of the ERDF and the other funds in Saxony. The most relevant point is that, as opposed to the EAGGF, there was no spatial demarcation between urban and rural areas in the ERDF funding. As a result, all rural and urban areas in the Free State of Saxony were eligible under the ERDF.

2.1.1 Coordination with national / regional development strategies

The national Community Support Framework was the basis for the Objective 1 Operational Programme of Saxony. The main relevant funding programmes in Saxony were:

- the Objective 1 Operational Programme 2000-06 (funded by the ERDF, ESF and EAGGF)
- two national "Joint Tasks" 'Improvement of Regional Economic Structures' (*Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur, GRW*) and 'Improvement of Agrarian Structures and Coastal Protection' (*Gemeinschaftsaufgabe Verbesserung der Agrarstruktur und des Küstenschutzes, GAK*) as main policy instruments and funding programmes with joint responsibility between the national and the federal level serving as strategy, policy and coordination framework. The two joint tasks contain a "menu" of measures from which the Länder can choose appropriate measures for their for regional and rural development. In addition there are several other funding programmes on national and Länder level (e.g. for road infrastructure or support of (business) networks).

The Operational Programme of Saxony defines the funding strategy and its priorities. The funding strategy was built up on the following priorities:

- Priority 1 (ERDF): Improvement of the competitiveness of the industrial economy, especially small and medium sized enterprises. Aim: strengthening the business sector through direct investment and non-investment activities (planned budget 23.85% of total)
- Priority 2 (ERDF): Infrastructure. Aim: improvement of the infrastructure through qualitative upgrading and removal of economic bottlenecks (planned budget 27.44% of total)
- Priority 3 (ERDF): Protection and improvement of the environment. Aim: environmental measures for improving the infrastructure (planned budget 15.70% of total)
- Priority 4 (ESF): Promotion of human resources and equal opportunities. Aim: Promotion of employment, particularly through active and preventive actions under the European Employment Strategy (planned budget 17.82% of total)
- Priority 5 (EAGGF Guidance): Rural development and fisheries. Aim: improvement of agricultural structures and rural development (planned budget 13.85% of total)

Regarding the three priorities funded by the ERDF, the following measures were proposed:

- Priority 1: Improvement of the competitiveness of the industrial economy, especially small and medium sized enterprises: 1.1 Promotion of productive investments, 1.2.1 Individual R & D projects to develop new products and processes, 1.2.2 R & D collaboration to develop new products and processes (collaborative projects), 1.2.3 Application of innovation assistants and innovative trainees, 1.2.4 Registration and economic exploitation of patents and intellectual property rights, 1.2.5 Promotion of technology transfer, 1.2.6 Promotion of European R & D cooperation, 1.2.7 Support for research activities in business-related research and similar institutions, 1.2.8 Promotion of SMEs, SME associations, research institutes and associations in the implementation and expansion of electronic commerce and the transition to the Information Society, 1.3.1

Support for entrepreneurs in gaining access to seed capital, 1.3.2 Facilitate access to national and international markets, Fairs and Exhibitions, 1.3.3 Cooperation projects in the framework of collaborative initiatives, 1.3.4 Innovative forms of financing for SMEs.

- Priority 2: Infrastructure: 2.1 Infrastructure in the area of science, research, development, 2.2 Infrastructure in the area of vocational education and training, information and communications technology in schools, 2.3 Urban and local infrastructure, 2.4 Transport Infrastructure, 2.5 Road infrastructure, 2.6 Improvement of infrastructure in the area of vocational education and training at Berufsakademie Saxony.
- Priority 3: Protection and improvement of the environment: 3.1 Water supply / waste water disposal, 3.2 Waste prevention, recycling, disposal, 3.3 Revitalisation of brownfields and land conversion, environmental countervailing measures, 3.4 Flood protection and elimination of flood damage, 3.5 Climate Change and Renewable Energy

In addition to these funding opportunities, the most relevant national funding programmes are the two Joint Tasks in the field of improving the regional economic structures (GRW) as well as the development of rural areas (GAK). Furthermore, Saxony allocates several additional funding opportunities in the field of setting up businesses and SME.

The co-ordination between the Structural Funds was organised through a) the financial regulations (avoidance of double funding), b) the common aims in the programming documents at OP level and c) the axis of funding. In broad terms it can be said that:

- The ERDF was responsible for infrastructure projects, direct support of enterprises (especially SME), support of R&D projects etc.;
- The ESF was responsible for the capacity building, education and training;
- The EAGGF was mainly responsible for the target group of farmers and had, in contrast to the ESF and the ERDF, a spatial demarcation or a demarcation of scale (number of inhabitants in villages restricted to 2,000 (5,000 as an exception)⁶ or project scales) and of target groups.

The two Joint Tasks were the main co-financing instruments for the EAGGF and the ERDF and very important additional funding programmes. The Joint Task 'Improvement of Regional Economic Structures' was very important not only from a national point of view but also for Saxony. As stated above, the Joint Tasks are like a "menu" of measures from which the Länder can choose appropriate measures for their regional and rural development. The co-financing role of the Joint Task led to the fact that the EU Structural Funds focused on the measures that already existed in the "menu". The reason behind is that 'joint responsibility' for the Joint Task between the national and the federal level also includes joint financing: the national level contributes with 60%, the federal level with 40%. As a result it is very attractive for a federal state to choose those measures from the ERDF which could be co-financed by the Joint Task, so that the federal state saves 60% of the national co-financing in comparison to a measure which can not be co-financed by the Joint Task. On the one hand, the 'scope of the Joint Task was extended during the 1990s and 2000s, partly in response to the much wider range of instruments which the Länder could co-finance through the Structural Funds'.⁹ On the other hand, the necessity of national public co-financing in combination with empty public purses intensified the tendency to implement the EU Structural Funds on the basis of existing structures and measures.

⁶ Interview SMUL 1.

⁹ European Policy Research Centre (2008). Ex Post Evaluation of Cohesion Policy Programmes 2000-2006 co-financed by the ERDF (Objective 1 and 2). Work package 11: Management and Implementation Systems for Cohesion Policy (No. 2007 CE 16 0 AT 034). Overview of Management and Implementation Systems of Cohesion Policy in 2000-2006 Germany. Draft Version. June 2008. p. 5.

2.2 The different roles of the funds

The following table gives an overview of the contribution of the different funds to the WP 9 project types in Saxony.

Table 2. Payments of funds in Saxony according to project types

Project types		ERDF	ESF	EAGGF	Total
Investments into business units	abs.	642.9	0	15.8	658.8
	rel.	98%	0	2%	100%
Transport infrastructure	abs.	742.9	0	0	742.9
	rel.	100%	0	0	100%
Social infrastructure	abs.	0	224.6	0	224.6
	rel.	0	100%	0	100%
Télécommunications infrastructure	abs.	12.6	0	0	12.6
	rel.	100%	0	0	100%
Education and training – investment in human capital	abs.	3.0	83.2	0	86.2
	rel.	3%	97%	0	100%
Support R&D	abs.	241.5	0	0	241.5
	rel.	100%	0	0	100%
Services fostering networks	abs.	510.7	0	0.7	511.5
	rel.	99%	0	1%	100%
Projects strengthening regional initiatives (in rural areas)	abs.	0	0	522.7	522.7
	rel.	0	0	100%	100%
Services fostering entrepreneurship	abs.	12.5	169.4	0	181.9
	rel.	7%	93%	0	100%
Energy infrastructure	abs.	0	0	0	0
	rel.	0	0	0	0
Land improvement	abs.	199.2	0	0	199.2
	rel.	100%	0	0	100%
Environmental measures	abs.	736.8	0	0.7	737.6
	rel.	99%	0	1%	100%
Tech. Assistance	abs.	27.0	25.2	3.0	55.3
	rel.	49%	46%	5%	100%
Human resources	abs.	0	351.7	0	351.7
	rel.	0	100%	0	100%
Agriculture, forestry, fisheries	abs.	0	0	162.8	162.8
	rel.	0	0	100%	100%
Expenditure not directly linked to a project type	abs.	296.6	0	0	1.2
	rel.	100%	0%	0%	100%
Total:	abs.	3425.9	854.1	705.8	4689.3
	rel.	69%	17%	14%	100%

Source: DG Regio Database

As Table 2 shows, the expenditures in Saxony were about €4.9bn. Thereof, 69% were from the ERDF, 17% from the ESF and 14% from the EAGGF. The FIGG was not relevant in Saxony. The highest expenditures were in the project type investments into business with €658m (= 14% of total payments) in the project type transport infrastructure with €742.9m (= 16%) in environmental measures (737m) and services fostering networks (€511M). Also important in

terms of spending were the project types support for R&D and land improvement,. Social infrastructure, human resources and services fostering entrepreneurship were mainly supported by the ESF. Projects strengthening regional initiatives and agriculture, forestry and fishery were exclusively supported by the EAGGF.

2.2.1 The role of the ERDF

Two steps are needed to assess the intra-regional distribution of the ERDF funding according to the WP 9 typology of rural areas and WP 9 project types: first the attribution of the rural typology to the NUTS 3 level and second the allocation of ERDF funding. The districts and independent cities in Saxony can be related to the WP9 regional types as follows.

The following description and assessment of the allocation of ERDF funding to the rural types is based on actual payments up until 30.06.2008. The data were provided by the Managing Authority.

Table 3. ERDF related payments for different types of projects in Saxony

Project type	payments (in million €)	Urban regions	strong intermediate	weak intermediate	weak rural	Saxony**)	% of all payments	
Investments into business units	ERDF	abs.	149.3	60.7	240.0	16.7	466.8	14%
		rel.	32%	13%	51%	4%	100%	-
	Public co-financed*)	abs.	114.5	45.7	182.2	15.3	358.7	25%
		rel.	32%	13%	51%	4%	100%	-
	private	abs.	994.7	363.5	1513.8	97.1	2968.7	83%
		rel.	34%	12%	51%	3%	100%	-
Transport infrastructure	ERDF	abs.	251.6	104.8	337.9	40.1	734.6	24%
		rel.	34%	14%	46%	6%	100%	-
	public co-financed	abs.	92.0	35.3	116.8	13.6	257.7	18%
		rel.	36%	14%	45%	5%	100%	-
	private	abs.	0	0	0	0	0	0
		rel.	0	0	0	0	0	-
Tele-communication infrastructure	ERDF	abs.	30.7	11.2	28.3	3.2	73.6	2%
		rel.	42%	15%	39%	4%	100%	-
	public co-financed	abs.	12.8	5.5	10.9	1.5	30.8	2%
		rel.	42%	19%	34%	5%	100%	-
	private	abs.	0	0	0	0	0	0
		rel.	0	0	0	0	0	-
Education and training – investment in human capital	ERDF	abs.	91.0	20.4	46.4	9.7	167.6	5%
		rel.	54%	12%	28%	6%	100%	-
	public co-financed	abs.	30.7	6.7	15.9	3.2	56.6	4%
		rel.	54%	12%	28%	6%	100%	-
	private	abs.	0	0	0	0	0	0
		rel.	0	0	0	0	0	-
Support R&D	ERDF	abs.	214.3	0	7.3	0	221.6	7%
		rel.	97%	0	3%	0	100%	-
	public co-financed	abs.	71.4	0	2.4	0	73.8	5%
		rel.	97%	0	3%	0	100%	-
	private	abs.	56.8	0	0.6	0	57.4	2%
		rel.	99%	0	1%	0	100%	-

Project type	payments (in million €)		Urban regions	strong intermediate	weak intermediate	weak rural	Saxony**)	% of all payments
Services fostering networks	ERDF	abs.	291.5	30.2	112.0	5.0	442.3	14%
		rel.	66%	7%	25%	1%	100%	-
	public co- financed	abs.	97.2	10.0	37.4	1.7	147.4	10%
		rel.	66%	7%	25%	1%	100%	-
	private	abs.	315.6	37.4	121.4	7.9	488.0	14%
		rel.	65%	8%	25%	2%	100%	-
Services fostering entrepreneurship	ERDF	abs.	5.4	2.0	4.5	0.2	12.1	>1%
		rel.	45%	17%	37%	2%	100%	-
	public co- financed	abs.	1.8	0.7	1.5	0.07	4.0	>1%
		rel.	45%	17%	37%	2%	100%	-
	private	abs.	9.0	3.3	7.3	0.3	19.8	>1%
		rel.	45%	17%	37%	1%	100%	-
Energy infrastructure	ERDF	abs.	1.7	1.0	2.3	0.2	5.3	>1%
		rel.	33%	19%	43%	4%	100%	-
	public co- financed	abs.	0.9	0.5	1.1	0.3	2.8	>1%
		rel.	32%	18%	39%	10%	100%	-
	private	abs.	4.7	2.1	5.5	0.2	12.5	>1%
		rel.	38%	17%	44%	2%	100%	-
Land improvement	ERDF	abs.	50.9	19.3	92.8	12.9	176.0	6%
		rel.	28%	11%	54%	7%	100%	-
	public co- financed	abs.	17.2	6.4	37.6	4.4	65.7	5%
		rel.	26%	10%	57%	7%	100%	-
	private	abs.	3.6	0	0.2	0.3	4.1	>1%
		rel.	89%	0	5%	6%	100%	-
Environmental measures	ERDF	abs.	160.0	153.1	341.5	27.6	682.3	22%
		rel.	24%	22%	50%	4%	100%	-
	public co- financed	abs.	90.6	82.0	188.7	15.7	377.0	26%
		rel.	24%	22%	50%	4%	100%	-
	private	abs.	0	0	0	0	0	0
		rel.	0	0	0	0	0	-
Human resources	ERDF	abs.	91.0	20.4	46.4	9.7	167.6	5%
		rel.	54%	12%	28%	6%	100%	-
	public co- financed	abs.	30.7	68	15.9	3.2	56.6	4%
		rel.	54%	12%	28%	6%	100%	-
	private	abs.	0	0	0	0	0	0
		rel.	0	0	0	0	0	-
Overall	ERDF	abs.	1337.8	423.3	1259.8	125.4	3149.8	100%
		rel.	42%	13%	41%	4%	100%	-
	public co- financed	abs.	560.0	199.8	610.6	59.1	1430.6	100%
		rel.	39%	14%	43%	4%	100%	-
	private	abs.	1383.9	406.3	1648.8	105.8	3550.7	100%
		rel.	39%	11%	46%	3%	100%	-
Total payments**):	abs.	3281.7	1029.4	35192	290.3	8131.0	-	
	rel.	40%	13%	43%	4%	100%	-	

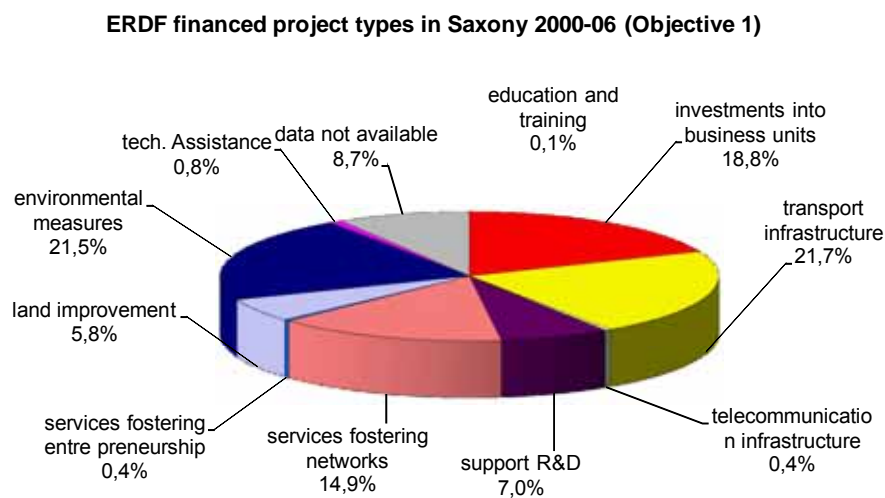
*) including national, federal state, local as well as otherwise public payments

**) due to rounding errors variations slight divergences to the sum of 100% are possible
(payments for the 2000-2006 period till 30.06.2008)

As table 3 shows that in the 2000-06 period¹⁰, €8.1bn were paid out in Saxony. The financial means consist of 44% (€3.5bn) private funding, 39% (€3.2bn) ERDF funds and 17% (€1.4bn) public funding. According to the different project types, the bulk of the funding was invested in the field of transport infrastructure and environmental measures (altogether about €1.4bn ERDF or 46% of the ERDF funds).

The urban regions as well as the weak intermediate regions benefited most. Altogether, these two regional types got about 83% of the total funding (€6.8bn). In comparison, the weak rural area got 4% of the funds (€290m). The WP 9 type strong intermediate got 13% of the funding. Altogether, the urban regions received €3.3bn (40% of all funding), the weak intermediate regions €3.5bn (43%), the strong intermediate regions €1.0bn (13%) and the weak rural regions €290.3n (4%). The contribution of the ERDF funding was in general allocated in proportion to the population and employees in the different regional types. Because of the demand-driven nature of the ERDF, funding was mainly allocated to the regions from which people and institutions applied for funding. However, the ERDF funding was also based on a strategic approach (e.g. funding of businesses and technologies with growth potential) partly combined with a spatial approach. E.g. the allocation of funds for Free State roads and communal roads was not only based on applications but also on a Traffic Development Plan and the Spatial Development Plan (Landesentwicklungsplan). In the end, it was a question of spatial scale and individual measures whether the allocation was balanced or not. Spatial issues, especially in terms of supporting urban or rural areas were no core issue for the allocation of ERDF funding.

Figure 1. ERDF financed project types according to the Objective 1 programme in Saxony 2000-06



Source: DG Regio Database

Regarding the ERDF financed project types, it becomes quite clear that about 60% of the funding was allocated to three project types: transport infrastructure, investments into business units and environmental measures. Nearly 15% was allocated to the project type services fostering networks and 7% to support R&D. To sum up, most project types were directly aimed at supporting businesses (investments into business units, fostering networks support R&D) and

¹⁰ Payments between 01.01.2000 and 30.06.2008 are taken into account for the 2000-2006 programming period.

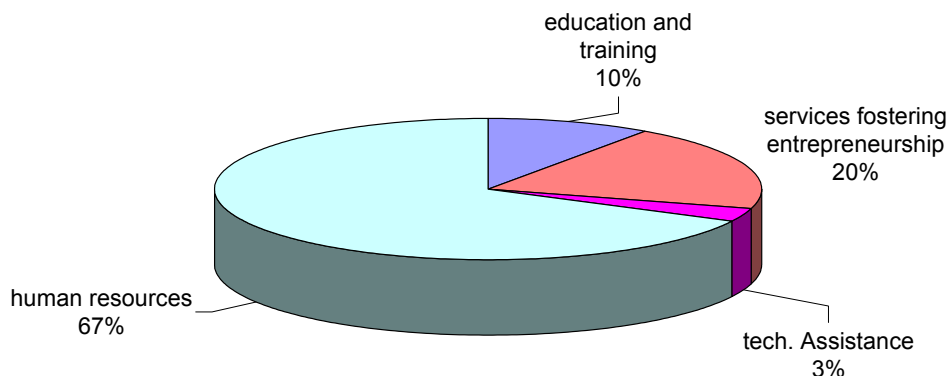
indirect support e.g. transport infrastructure and environmental measures (which includes especially the investments into central waste water treatment plants).

2.2.2 The role of the ESF

More than two thirds of the ESF was allocated to the project type human resources, another 20% to services fostering entrepreneurship and 10% to education and training. This distribution shows the chosen division of work between the funds: The ESF invested most in human resources, with a balanced amount allocated for entrepreneurship. Within the 'division of work' between the Structural Funds, the ESF was responsible for the "soft "measures (capacity building, education, training) within Priority 4 'Promotion of human resources and equal opportunities'. The ESF aimed at solving the same main problems as the ERDF but focussed on supporting people: combating unemployment and preventing long term unemployment, close cooperation of local actors to identify and exploit local development potentials, promotion of competitiveness (mainly SMEs) by adapting the skills of their workers or the promotion of entrepreneurship and start-ups.¹¹ The allocation of ESF to the three project types human resources, education and training and services fostering entrepreneurship reflects these aims.

As a result, the ERDF provided the basis mainly for the physical development within the three Priorities 'Improvement of the competitiveness' (Priority 1), 'Infrastructure' (Priority 2) and 'Protection and improvement of the environment' (Priority 3) whereas the ESF was responsible for the promotion of people.

Figure 2. ESF financed project types according to the Objective 1 programme in Saxony 2000-06



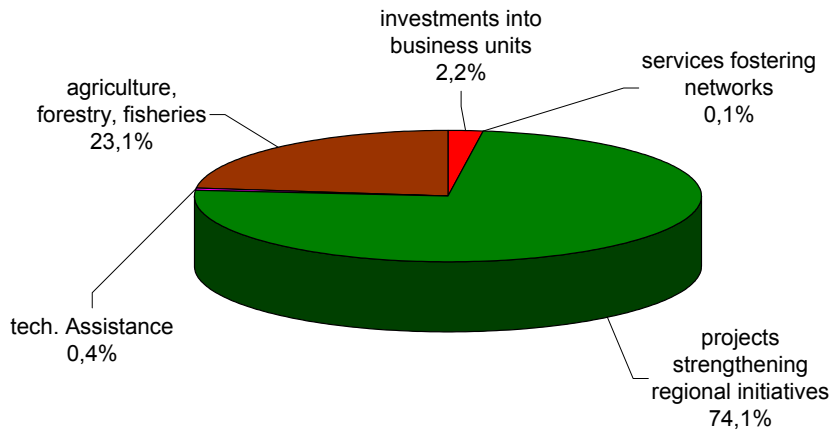
Source: DG Regio Database

2.2.3 The role of the EAGGF

In contrast to the ERDF, the funding of the EAGGF was targeted at certain areas. 74% of the EAGGF was allocated to 'projects strengthening regional initiatives' such as marketing of quality agricultural products, basic services for the rural economy and population, diversification of agricultural activities and activities close to agriculture, promoting tourist activities etc. About 25% was spent on the project type 'agriculture, forestry and fishery'.

¹¹ OP EFRE 2000 Saxony, updated version 2007, p. 7

Figure 3. EAGGF financed project types according to the Objective 1 programme in Saxony 2000-06



Source: DG Regio Database

The EAGGF covered the Priority 5 'Rural development and fisheries' and was targeted at two major areas of action: improving the agricultural structure and rural development. The measures were mainly focussed on the target group of farmers. In addition, the EAGGF funding was restricted by a spatial demarcation as well as to project scales: bigger infrastructure investments along the development axes and the cities of Saxony were funded by the ERDF whereas the EAGGF supported projects in villages (restricted to 2,000 inhabitants, 5,000 as an exception). In comparison to the ERDF and ESF, the EAGGF was the most restricted of the three funds due to the spatial and target group focus.

2.3 Thematic focus of the analysis

In order to check the role of the ERDF in the development of rural areas, theory based hypotheses were developed under Task 1 of this evaluation. To identify the most relevant hypotheses for Saxony the following issues were taken into account:

- the importance of the theme of the hypothesis in terms of ERDF expenditure in the region as a whole and in rural areas. (The amount of ERDF expenditures reflects in a way the reaction of the programming authority to the needs of the region.)
- the importance of the theme of the hypothesis in terms of meeting the needs of rural areas in Saxony e.g. combating high unemployment, supporting businesses and R&D aimed at accelerating regional structural change and improving the accessibility of rural areas (rural areas cover approximately 75% of the Free State, approximately 35% of the population; see above).

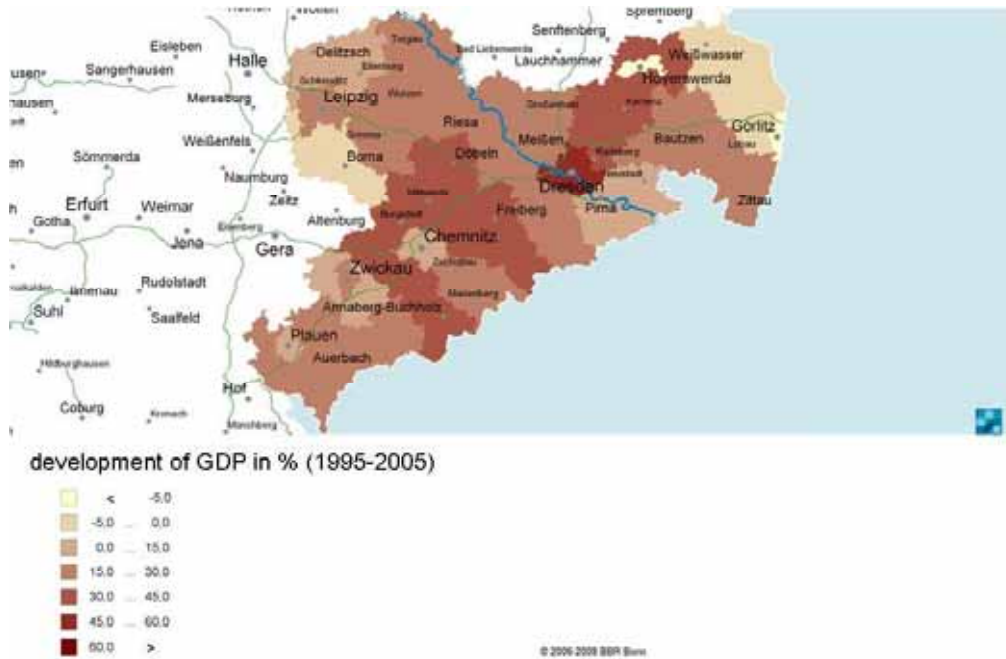
Against this background, the following hypotheses were identified as the most relevant for the region of Saxony:

- Hypothesis 1: ERDF support for businesses with growth potential helps rural areas face economic challenges
- Hypothesis 2: ERDF support for the improvement of technical infrastructure increases the accessibility of rural areas
- Hypothesis 3: ERDF support for R&D projects fosters innovation, increases the innovative potential and creates an innovative milieu in rural areas
- Hypothesis 5: ERDF support for the establishment and improvement of (business) links strengthens endogenous regional networks

2.4 The role of the ERDF in helping rural areas face economic challenges

The GDP of Saxony was €88.5m in 2006, 3.5% of the GDP of Germany or 33% of the new Länder (without Berlin).¹² The GDP per capita was €20,759 in 2006, €7,500 below the average GDP per capita in Germany, but still the highest in the new Länder (without Berlin).¹³

Map 6. Development of GDP by districts and independent cities in Saxony (1995-2005)



Source: BBR INKAR

In 2000, 1.97m persons were in employment, thereof 2.6% in the primary sector, 30.0% in the secondary sector and 67.3% in the tertiary sector. The number of employed people had decreased by 59,600 (3%) to 1.91m by 2006, especially in the primary and secondary sector whereas their number in the tertiary sector increased.¹⁴

¹² Statistisches Bundesamt (2008): Statistisches Jahrbuch 2007: Kapital Volkswirtschaftliche Gesamtrechnung. p. 653.

¹³ Volkswirtschaftliche Gesamtrechnung der Länder: Bruttoinlandsprodukt: http://www.vgrdl.de/Arbeitskreis_VGR/ergebnisse.asp?lang=de-DE#LA-GDP (11.09.2008).

¹⁴ Statistisches Landesamt Sachsen: Arbeitsmarkt: http://www.statistik.sachsen.de/21/03_01/03_01_tabellenliste.asp (09.09.2008).

Table 4. Persons in employment in the NUTS 3 regions administrative districts, Regierungsbezirke) of Saxony (2000, 2006)

Employment in the... (full-time equivalents)		... primary sector		... secondary sector		... tertiary sector	
		in 1000 persons	as % of total sector	in 1000 persons	as % of total sector	in 1000 persons	as % of total sector
Administrative district Chemnitz	2000	19	3.3%	161	27.5%	405	69.2%
	2006	14	2.3%	171	28.5%	415	69.2%
Administrative district Dresden	2000	25.8	4.1%	148.4	23.6%	454.6	72.3%
	2006	21.1	3.2%	147.7	22.6%	485.2	74.2%
Administrative district Leipzig	2000	11.4	2.9%	74.8	18.8%	310.7	78.3%
	2006	10.2	2.4%	73.2	17.2%	342.5	80.4%
Sachsen	2000	52.9	2.6%	592.0	30.0%	1326.8	67.3%
	2006	41.5	2.2%	507.1	26.5%	1363.5	71.3%
Germany	2000	936	2.4%	11303	28.9%	26905	68.8%
	2006	849	2.2%	9958	25.5%	28299	72.4%

Source: WP 9 Regional Data und Statistisches Bundesamt

Altogether, the Free State of Saxony has 164,064 enterprises registered, thereof 2.6 % in the primary sector, 2.5 % in the secondary sector and 71.3 % in the tertiary sector. Most enterprises (91%) are micro enterprises...¹⁵ |

Despite a general positive trend in the programming period 2000-06, the economy in Saxony faced several challenges. From 2000 to 2005, the regional GDP grew by 12% caused by annual growth rates between 0.5 and 4%. This increase is higher than in Germany overall (9%) but clearly below the EU average¹⁶. Especially in the major towns like Dresden, Leipzig and Zwickau and in several districts in the environs of the main cities, the GDP grew much more strongly, whereas in the peripheral and rural areas and some smaller cities the GDP has been decreasing since 1995, e.g. Hoyerswerda -19.9%, Görlitz -12.5%, the Niederschlesische Oberlausitzkreis -1.2%, Leipziger Land with -0.4%.

Supporting business units with growth potential

The support of business units was one of the key priorities of the ERDF funding in Saxony 2000-06. Thus, in Saxony, nearly €3.8bn were spent on investments into business units between 01.01.2000 and 30.06.2008. Thereof, 78% was from private capital (nearly €3bn), 12% from the ERDF, 5% from national subsidises and 5% from regional subsidies. The high amount of private capital was activated by the funding regulations of Saxony. E.g. in the field of supporting productive investments only 25% to max. 35% (SME +15%) of the *eligible costs* were financed by public funds – 50% coming from the ERDF.

¹⁵ Statistisches Landesamt Sachsen: Unternehmensregister:
http://www.statistik.sachsen.de/21/15_01/15_01_0207_tabelle.asp (11.09.2008).

¹⁶ Calculations based on Eurostat.

Table 5. Payments project type investments into business units

		urban regions	strong intermediate	weak intermediate	weak rural	overall
Population 01.01.2007	rel.	44,3%	14,2%	37,1%	4,4%	100%
Employees 30.06.2006	rel.	52,0%	12,3%	32,3%	3,4%	100%
Projects	abs	556	303	1012	79	1.950
	rel.	29%	16%	52%	3%	100%
payments (in Mio. €)						
ERDF	abs	149.7	60.8	240.0	16.6	466.9
	rel.	32%	13%	51%	4%	100%
BRD	abs	55.1	22.9	91.0	7.7	176.6
	rel.	31%	13%	52%	4%	100%
Saxony	abs	55.1	22.9	91.3	7.7	177.0
	rel.	31%	13%	52%	4%	100%
Local	abs	0	0	0	0	0
	rel.	0	0	0	0	0
other-wise public	abs	4.4	0	0	0	4.4
	rel.	100%	0	0	0	100%
Private	abs	994.2	363.6	1513.8	97.1	2968.7
	rel.	33%	12%	51%	3%	100%
Overall	abs.	1258.1	470.1	1936.1	129.1	3793.6
	rel.	33%	12%	51%	3%	100%

Source: SMWA (ERDF related payments in Saxony for the program 2000-2006 between 01.01.2000 and 30.06.2008)

Between 2000-08, the ERDF funded about 1,950 projects supporting business units. More than 50% of the projects were located in weak intermediate regions with a low average population density and decreasing population. 29% was spent in urban areas, 16% in strong intermediate regions and only 3% in weak rural regions with low population density and decreasing population.

50% of all the investments were funded through the ERDF. Another 50% was funded through the Joint Task 'Improvement of Regional Economic Structures' (without ERDF funding but with national and Länder money). The decision about which projects to fund through the ERDF and which through the Joint Task was not content-related but based on financial aspects. At the beginning of the funding period, more projects were financed through the ERDF.¹⁷ Bigger projects tended to be funded through the ERDF to avoid small projects having to deal with the higher administrative costs of EU-funding.¹⁸ Altogether, the support for investments in enterprises ran quite smoothly and contributed to overall economic development in Saxony¹⁹ and to approximately 8,400 new jobs: 'The investment in enterprises directly targets a core variable influencing future development as it contributes to improving productivity.'²⁰ The employment effects were concentrated in agglomeration areas but taking into account commuter connections, also rural areas profited from this positive development: '48% of the expected new jobs were

¹⁷ Interview SMWA 1

¹⁸ Interview Evaluator

¹⁹ Interview Evaluator

²⁰ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000 bis 2006– Schwerpunkte 1 bis 3 (Los 1). Endbericht. im Auftrag des Sächsischen Staatsministeriums für Wirtschaft und Arbeit. November 2005. p. IV.

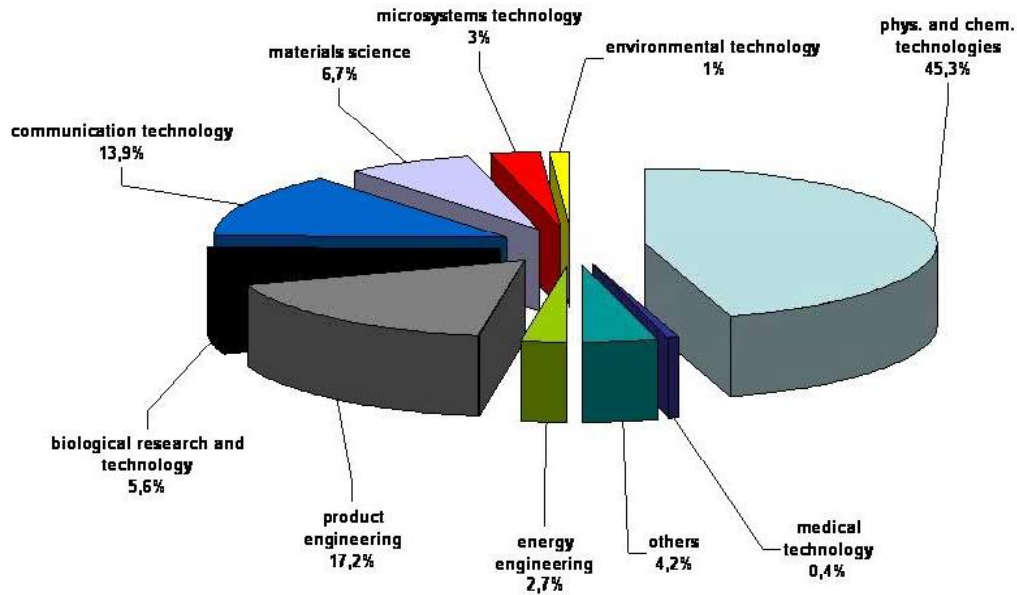
created in the centres, 24% in densely populated areas within rural areas and only 20% in rural areas. In relation to the proportion of employment the densely populated areas of the Free State benefited most.²¹

According to the information given by the interviewees of the Managing Authority, without the ERDF, approximately one third of all business creation would not have happened.²² As a result, the ERDF contributed to a high extent to the increase of business units in the region. In relation to the population and the employees, the weak intermediate regions profited most and the urban regions least. The weak rural regions benefited in relation to their population and number of employees.

The strategic funding approach of Saxony aimed at the three priorities (competitiveness, infrastructure and environment). The allocation of funds depended on the business structure: manufacturing companies tend to be located in urban areas. In rural areas, handicrafts, trade and agriculture are more dominant - and not the main target of the funding. But enterprises in rural areas were not excluded from the funding, they just had to meet the same requirements as every other enterprise. There was only one difference regarding the funding rates: They were reduced (-5%) in the urban centres (Dresden, Leipzig, Chemnitz) or vice versa: the structurally weak regions received higher funding rates.²³ The strategic approach was only partly combined with spatial specifications e.g. in the field of road infrastructure (see above).

2.4.1 Aiming for a balanced mix of economic sectors

Figure 4. Technology funding (ERDF and federal co-financing) in Saxony from 1992 until 2007 (funds granted for individual and co-operative R&D projects)



Source: SMWA Referat 33

²¹ Ibid p. 55.

²² Interview SWMA 1.

²³ Interview SMWA 2.

Saxony possesses a relatively well balanced mix of economic sectors with a special focus on biotechnology (e.g. Max Planck Institutes and technology transfer centres in Dresden as well as in Leipzig), microelectronics (Dresden) or automotive suppliers (Chemnitz/Zwickau).²⁴

The distribution of funding related to sectors or technologies was not balanced in terms of equal weighting. One main target group were the so called future technologies (physical-technical technologies, manufacturing technology, materials science, information technology and biotechnology). In addition, there were further technologies, e.g. microsystems technology, energy and medicine technology which also were very active applicants. However, also in respect of the different business branches the allocation of funds was demand-driven. There was no budgeting concerning technology.²⁵ However, as there was a rather balanced mix of economic sectors, the demand-driven funding approach has not led to a mono-structured economy.

The demand-driven funding approach secures the allocation of funds to businesses with growth potential because a (politically motivated) spatial allocation of funding could be avoided. As less industry is located in the rural areas, only 3% of the funded projects were located there. Consequently, most of the ERDF funding went to urban and intermediate areas, because there were enough actors that plied for the funding. However, this approach did not lead to a unbalanced mix of the economic structure.

2.5 The role of the ERDF in increasing accessibility

A well-developed infrastructure is an important location factor for the region and has positive effects on its competitiveness. The infrastructure is also important for the accessibility of regional centres especially for the rural population in the area. Regarding the two weak rural regions (WP 9 typology) in the north (Niederschlesische Oberlausitzkreis) and in the east (Torgau Oschatzkreis) an insufficient connection to the national road network, in particular the German and international express network, can be stated. This insufficient connection concerns not only the two districts but also the majority of the border regions along the border to Poland and the Czech Republic. Most of these districts are classified as weak intermediate (WP 9 typology) and as rural regions according to the Spatial Development Plan of Saxony.

2.5.1 Transport infrastructure

Saxony has a wide and complex regional road network 13,532 km aiming at a maximum driving time from each municipality to the next motorway junction should of 30 minutes.²⁶ Despite this quite well developed road network, in districts like Annaberg, Löbau Zittau, Mittlerer Erzgebirgskreis, Torgau-Oschatz as well as in the city Hoyerswerda the average automobile ride time to the next motorway junction is more than 30 minutes. . These districts with insufficient accessibility are mainly located in the weak rural and the weak intermediate NUTS 3 regions, Consequently, the road conditions especially in the remote areas have to be improved.

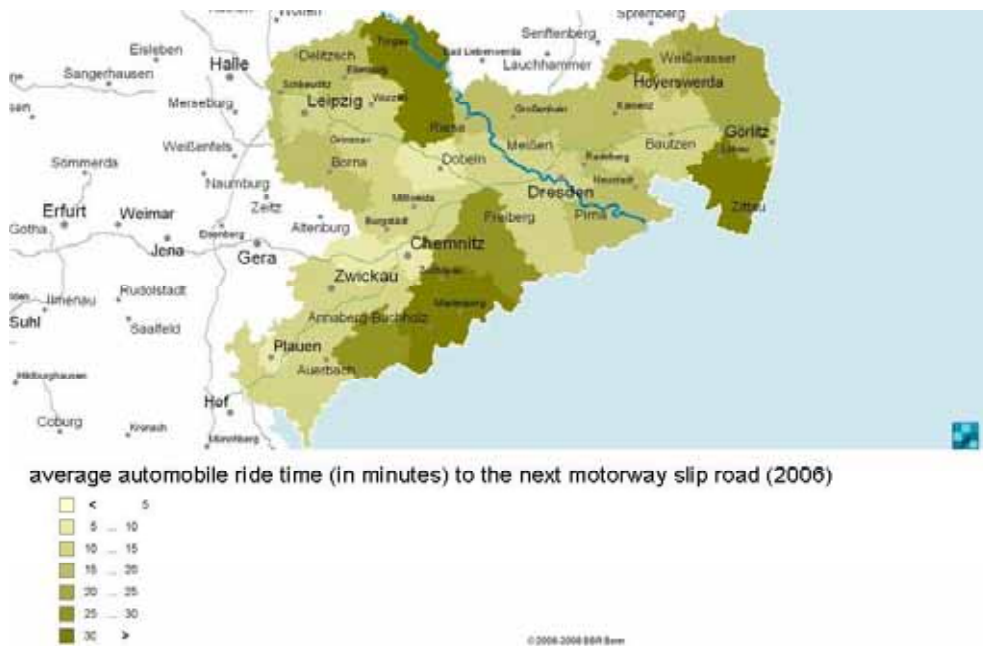
²⁴ Interview Evaluator.

²⁵ Interview SAB.

²⁶ Freistaat Sachsen (2006): Sachsen. Die Fakten: p. 55.

The railway network of Saxony has a length of 2,700 km and more than 600 railway stations, resulting in the highest railway system density in Germany and Europe. With its railway system of train, tramway, regional and city bus and the public transport system, Saxony is very well developed.²⁷ Nevertheless, the accessibility of rural areas using public transport is, as in most rural areas, also a problem in Saxony: public transport in rural areas is limited and time-consuming.

Map 7. Average automobile ride time (in minutes) to the next motorway junction by districts and independent cities in Saxony (2006)



Source: BBR INKAR

²⁷ http://www.smwa.sachsen.de/de/Verkehr/Verkehrsinfrastruktur___Verkehrstraeger/Schienenverkehr/97184.html (09.09.2008).

ERDF support for transport infrastructure at regional level

Table 6. Payments project type transport infrastructure

		urban regions	strong intermediate	weak intermediate	weak rural	overall
population 01.01.2007	rel.	44%	14%	37%	4%	100%
employees 30.06.2006	rel.	52%	12%	32%	3%	100%
Projects	abs	535	487	1435	227	2684
	rel.	20%	18%	53%	8%	100%
payments (in Mio. €)						
ERDF	abs	251.6	104.9	336.0	40.1	734.6
	rel.	34%	14%	46%	5%	100%
National	abs	60.5	24.5	81.4	9.2	175.7
	rel.	34%	14%	46%	5%	100%
federal state	abs	3.8	1.0	1.9	0.06	6.8
	rel.	57%	14%	28%	1%	100%
Local	abs	26.8	9.6	33.0	4.0	73.6
	rel.	36%	13%	45%	6%	100%
other-wise public	abs	0.8	0.2	0.5	0.3	1.7
	rel.	46%	12%	27%	15%	100%
Private	abs	0	0	0	0	0
	rel.	0	0	0	0	0
Overall	abs	343.7	140.2	454.8	53.7	992.4
	rel.	35%	14%	46%	5%	100%

Source: SMWA (ERDF related payments in Saxony for the program 2000-2006 between 01.01.2000 and 30.06.2008)

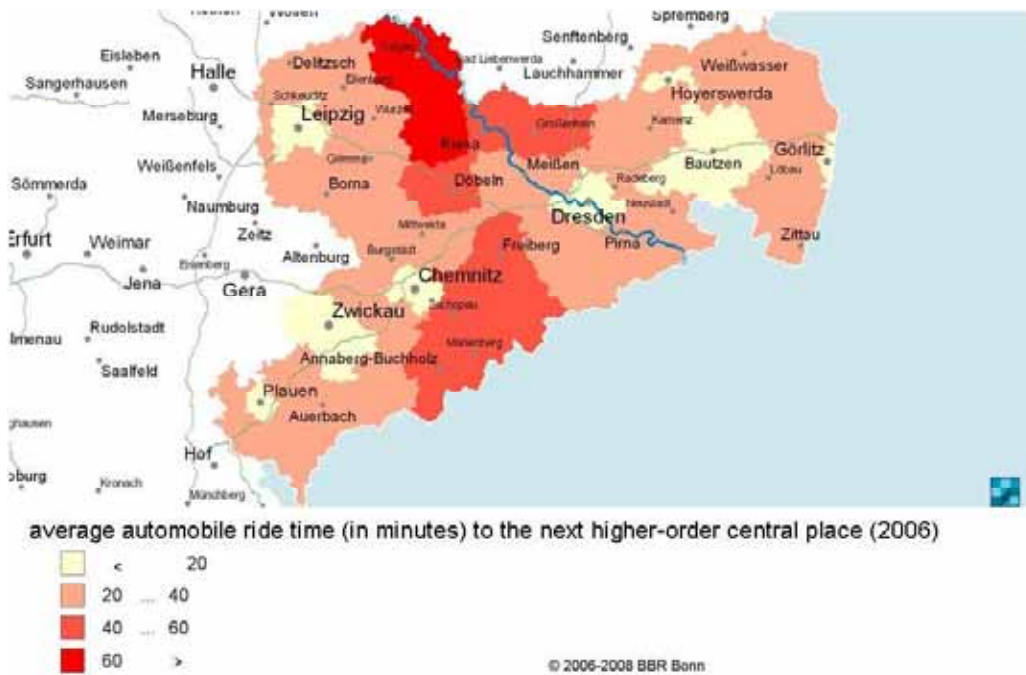
In the 2000-06 programming period, ERDF funds for transport were completely focused on building Free State roads and communal roads in a total of 2,684 projects. These projects received €735bn ERDF funding. 53% (1,435 projects) were carried out in weak intermediate and just 8% (227 projects) in weak rural areas. The WP9 types urban and strong intermediate areas profited equally with 535 and 487 projects respectively in this field. The allocation of funds was based on the Traffic Development Plan (Fachlicher Entwicklungsplan Verkehr) and its basic principles (sustainable integrated concepts as precondition for financial support in rural regions as well as communal traffic development plans in urban areas). The investments were aimed at improving the business environment of the cities and the peripheral regions in Saxony through an effective road system. The high proportion of funding related to the weak intermediate and weak rural areas is not only due to the fact, that these two types cover 14 of 22 districts but also because of the decision making process: in contrast to the support for investment in enterprises, the distribution of funding was influenced by regional allocation considerations. To set priorities, the demand from the regions was first assessed by the Ministry (SMWA) according to the Landesentwicklungsplan (Spatial Development Plan). In a second step, the Ministry appraised the demands - also against the background that every region should benefit from the funding.²⁸

The update of the mid-term evaluation comes to the following conclusions regarding the effects of investment into transport infrastructure: *'By far the most money for a single measure has been spent on road building. By improving regional accessibility, this measure improves one of the most essential factors for development. Where the projects are under the responsibility of the state government, this effect can be taken for granted given the importance of state-funded*

²⁸ Interview SMWA 3.

roads in the network. By contrast, roads under municipal responsibility are certainly in need of investment, but the projects are partly focused on local needs and show only limited - if any - regional effects. With regard to future funding, the whole of the traffic system needs to be targeted, rather than just road building. (...) Similarly the investment in road building aims to support both the development of rural areas and the overcoming of bottlenecks in the centres. For future economic development, primarily R&D infrastructure and traffic infrastructure are of strategic importance.²⁹

Map 8. Accessibility of cities in minutes in Saxony



Source: BBR INKAR

The improvement of accessibility through a better road infrastructure is one main factor for business and economic development. The best cost-benefit relation is reached with by-pass roads for towns and villages (reduces fuel, noise and other emissions as well as travelling time). A good example is the west by-pass road Prina including a new bridge over the river Elbe and motorway junction. This had considerable effects on the establishment of new enterprises. In total €680m (including federal state co-financing) were invested through the ERDF. The Free State would not have been able to finance such a huge amount on its own. In addition to the EU funding, €497m national money and €182m federal state money was invested into the road infrastructure between 2001 and 2007. Despite these investments, the demand was considerably higher (nearly twice as high).

An assessment of the extent of business growth which has been directly/indirectly initiated by ERDF measures in the field of transport infrastructure improvements is only possible at a general level. Besides methodological problems to capture functional chains, there is also the

²⁹ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000-2006 (Los 4) Endbericht. November 2005. p. IV.

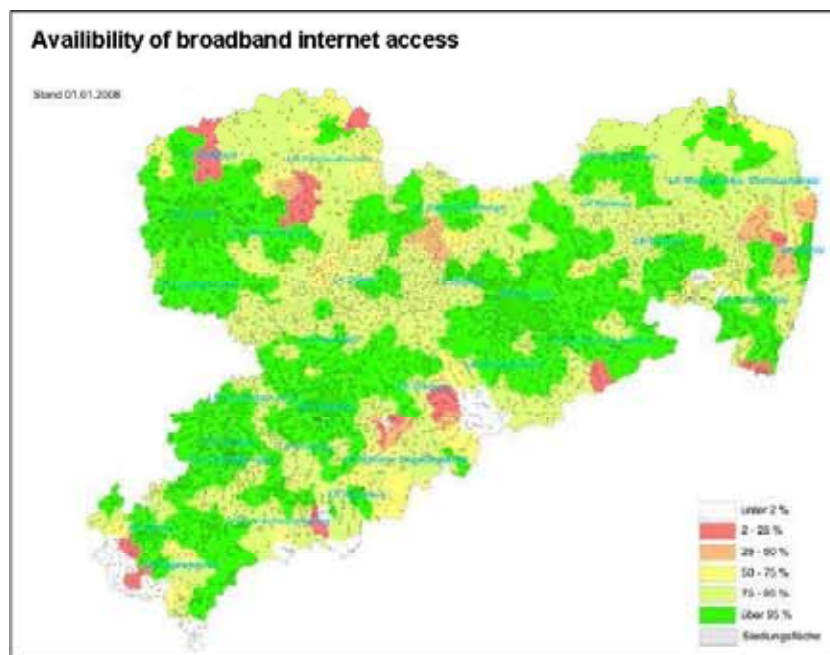
time delay of effects or direct/indirect effects to take into account. The ERDF was not the only funding programme which makes it difficult to assess its net effects.

Overall it can be stated that the transport infrastructure measures of the ERDF have contributed to an improvement of the location factors and hence increased the opportunities for businesses/economic growth. However, accessibility is only one factor among a multitude of factors. Overall, road building is assessed as absolutely essential for improving accessibility and reducing regional disadvantages. Although the distribution of road funding was influenced by regional allocation considerations (in contrast to the support for investment in enterprises), the distribution differs only to a very small extent. Together with the project type 'investment into business units' this can be seen as a good basis for more investments of and into businesses in the future.

2.5.2 Telecommunication infrastructure

Saxony has a very developed broadband network. Up to 90% of the area of Saxony had a 75% broadband access in 2008. In Dresden, Leipzig, Chemnitz, Zwickau, Plauen, Görlitz and Hoyerswerda as well as in their direct surroundings, accessibility was nearly 100%.

Map 9. Availability of broadband internet access in Saxony (2008)



*) unter 2%; 2-25%; 25-50%; 50-75%; 75-95% more than 95% = rate of provision; Source: www.zukunft-breitband.de

In contrast to the broadband provision, the DSL-availability is limited to the towns classified as middle and higher centres (see map 9). A number of areas, including the rural areas, have no, or just limited access to DSL-networks. This urban-rural divide was indicated by the national and federal level. As a result, in 2007/2008, two new funding measures were integrated into the two German Joint Tasks to improve the broadband availability in rural areas.

ERDF support for telecommunication infrastructure

The telecommunication infrastructure (broadband internet) was not covered by the ERDF but by national funding programmes.³⁰ The two measures that were funded by the ERDF in this field were 'Information and Communication Infrastructure in Schools' and 'Funding of SME or collaborative SME for Implementation and Improvement of Electronic Business Connections – E-Business/Telematic' (implementation of electronic business connections within enterprises).

Table 7. Payments project type telecommunication infrastructure

		urban regions	strong intermediate	weak intermediate	weak rural	overall
population 01.01.2007	rel.	44%	14%	37%	4%	100%
employees 30.06.2006	rel.	52%	12%	32%	3%	100%
projects	abs	992	375	907	147	2421
	rel.	41%	15%	37%	6%	100%
payments (in €)						
ERDF	abs	30.7	11.2	28.4	3.3	73.6
	rel.	42%	15%	39%	4%	100%
national	abs	0	0	0	0	0
	rel.	0	0	0	0	0
federal state	abs	1.1	0.3	0.4	0.04	1.8
	rel.	60%	17%	21%	2%	100%
local	abs	10.7	4.2	9.8	1.2	25.9
	rel.	41%	16%	38%	5%	100%
other-wise public	abs	1.0	1.1	0.7	0.3	3.1
	rel.	34%	34%	24%	8%	100%
private	abs	0	0	0	0	0
	rel.	0	0	0	0	0
overall	abs	43.5	16.8	39.2	4.8	104.4
	rel	42%	16%	38%	5%	100%

Source: SMWA (ERDF related payments in Saxony for the program 2000-2006 between 01.01.2000 and 30.06.2008)

In Saxony, 2,421 telecommunication projects were conducted with a total ERDF support of about €74bn. 41% of the projects were in urban regions, 37% in weak intermediate regions, 15% in strong intermediate regions and 6% in weak rural regions. Regarding the allocation in relation to population and employees it can be stated that all WP 9 types have profited proportionally.

42% of the ERDF contribution were spent in the urban, 15% in the strong intermediate, 39% in the weak intermediate and 4% in the weak rural regions.

Altogether, in the 2000-06 period nearly €105m were spent on the improvement of the telecommunication infrastructure in Saxony whereof 70% came from the ERDF, 25% from local means, 3% from other public capital and nearly 2% from Länder budgets.

³⁰ Interview Evaluator, Interview SMUL 1.

The funding of 'Information and Communication Infrastructure in Schools' contributes indirectly to economic development by improving education in schools. More important but not really significant in comparison with the investments in enterprises, traffic infrastructure or R&D investments (see below) was the 'Funding of SME or collaborative SME for Implementation and Improvement of Electronic Business Connections – E-Business/Telematic'. Indirect effects on business growth could be expected through a more intensive use of e-business and new electronic processes by the enterprises which could lead to a new product or access to new markets. However, business growth was not the direct aim of this measure.³¹ The focus was set on reducing costs and improving the business environment through e-business which may lead to business growth in the future.

The investments in telecommunication infrastructure and application only contribute to accessibility to a small extent. This is due to the fact that after the reunification of Germany in 1989, big investments were made into laying fibre optic cable in the new Länder. These investments were financed through national institutions and programmes. When the urban-rural divide in the accessibility of DSL made it onto the political agenda two years ago, national funding measures were developed and integrated into the two nationally funded Joint Tasks. As a result, the reasons why the hypothesis does not really hold is due to the specific conditions in Germany.

2.6 The role of the ERDF in fostering innovation and creating an innovative milieu in rural areas

The competitiveness of a region depends on its ability to generate new knowledge and to transform it into new products and process innovations. A key role in that process is the field of research and development.

The ERDF measures supporting R&D projects fostering innovation were the two measures 'infrastructure in the field of science, research, development and information technology' and 'investment assistance for non-university business-orientated research institutes' with a budget of only approximately €353m.

The funding assigned to the support of R&D projects fostering innovation covered in this section deals with infrastructural and institutional support whereas the funding of R&D networking projects are covered in the next section. ERDF support for the establishment and improvement of (business) links includes the main measures 'Individual R&D projects for the development of new products and processes' and 'R&D co-operation for the development of new products and processes (collaborative projects)'. Together with three other smaller measures they amount to more than 1bn € - three times that spent on R&D projects fostering innovation.

ERDF support for R&D at regional level

In the field of support for R&D, 208 projects were conducted between 2000-06 in Saxony with a total budget of altogether about €353m. €222m came from the ERDF. 80% of the projects were conducted in urban areas (with a budget of approximately €342m, or 97% of the total). 20% of the projects were in weak intermediate regions (with a budget of €10m, or 3%). There were no projects in strong intermediate and weak rural regions. The remaining funding came from the Länder and private means. Local or other public funds were not invested. Regarding the allocation in relation to population and employees it is obvious that in this case because of the demand-driven funding approach only the urban regions benefited from the funding.

³¹ Interview SMWA 4.

Table 9. Payments project type support of R&D

		urban regions	strong intermediate	weak intermediate	weak rural	overall
population 01.01.2007	rel.	44%	14%	37%	4%	100%
employees 30.06.2006	rel.	52%	12%	32%	3%	100%
projects	abs	166	0	42	0	208
	rel.	80%	0	20%	0	100%
payments (in Mio. €)						
ERDF	abs	214.3	0	7.3	0	221.6
	rel.	97%	0	3%	0	100%
national	abs	2.0	0	0.6	0	2.6
	rel.	77%	0	23%	0	100%
federal state	abs	69.5	0	1.9	0	71.3
	rel.	97%	0	3%	0	100%
Local	abs	0	0	0	0	0
	rel.	0	0	0	0	0
other-wise public	abs	0	0	0	0	0
	rel.	0	0	0	0	0
Private	abs	56.8	0	0.6	0	57.4
	rel.	99%	0	1%	0	100%
Overall	abs	342.5	0	10.3	0	352.8
	rel.	97%	0	3%	0	100%

Source: SMWA (ERDF related payments in Saxony for the program 2000-2006 between 01.01.2000 and 30.06.2008)

The WP 9 project types which are based on the expenditure-categories that were completed by the Managing Authority in Saxony only cover the measures 'infrastructure in the field of science, research, development and information technology' and 'investment assistance for non-university business orientated research institutes' in Saxony. The funding of R&D projects in the measures 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5., 1.2.6 was included in the project type services fostering networks (see next chapter).. As the analysis is based on the Operational Programme of Saxony we need to respect this attribution as part of the funding approach. So both project types/chapters have to be regarded as interlinked.

In the update of the mid-term evaluation it is stated that R&D funding has considerably contributed to the improvement of the competitiveness and innovation power of the beneficiary enterprises and institutions. The high amount of the ERDF funding allocated to R&D has led to a good stock of R&D equipment and infrastructure in Saxony and a relatively high intensity of R&D activities in the economy.³² However, the report also states that '*Investment in Saxony is characterised by a higher share of productive investment than in the other eastern Länder. This is encouraging specifically for future development of productivity and should be supported as far as possible. By contrast, development with regard to R&D remains unsatisfactory. Although*

³² IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000 bis 2006 – Schwerpunkte 1 bis 3 (Los 1). Endbericht. im Auftrag des Sächsischen Staatsministeriums für Wirtschaft und Arbeit. November 2005. p. 28.

*Saxony is still the state with the highest potential in eastern Germany, the dynamic of the growth of R&D input (both in terms of money and people) is higher in other states. And although top of the league in eastern Germany, Saxony only ranks in the lower mid-field in a national comparison. The bottleneck is not so much on the supply side of R&D knowledge, where Saxony is well equipped with research institutions, as in the transfer to the economic sector. This is a factor which certainly needs to be improved.*³³ In this respect one lever of the ERDF could be the improvement of technology transfer and application orientated research projects and infrastructure which are two measures under Priority 1 'Strengthening of innovation, science, research' in the current funding period 2007-2013.

Regarding the hypotheses 'ERDF support for R&D projects fosters innovation, increases the innovative potential and creates an innovative milieu in rural areas' it could be said that, due to the demand-driven funding approach, rural areas only profit to a very small extent (weak intermediate = 3%). Most investments into R&D activities were allocated in urban regions because the R&D businesses and institutions are located there. However, in spite of this concentration on urban areas it appears that the spillover effects of the investments are considerable. The funded R&D projects are getting bigger meaning that the companies have more of their own money to invest in R&D. Employment in the field of R&D has also increased. In the beginning, this was induced by the public subsidies, but in general the R&D employees continue to work in the companies after the funding has ended.³⁴

Concerning regional innovation, Saxony has built up a very good stock of Fraunhofer institutes (in the funding period 1994-1999) which were supported through the ERDF. These institutes are mainly located in the cities but have strong spillover effects and serve as an interface between technology and businesses. The thematic orientation towards these application-orientated R&D institutes with relevance for rural development is regarded as a strength. However, explicit spill over effects e.g. in terms of job creation in rural areas have not been assessed³⁵ -

2.7 The role of the ERDF in strengthening endogenous regional networks

In Saxony, the main R&D measures are included in the category of projects supporting the establishment and improvement of (business) networks in order to strengthen regional cooperation: 'Individual R&D projects for the development of new products and processes' and 'R&D co-operation for the development of new products and processes (collaborative projects)'. These two measures covered approximately 82% of the technology funding in Saxony in the funding period 2000-06.³⁶ Together with three other smaller measures (in terms of budget) they amounted to more than €1bn. Between 2000-06, 2,212 projects 'fostering business networks' were conducted financed with €442m from the ERDF.

³³ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000 bis 2006 – Schwerpunkte 1 bis 3 (Los 1). Endbericht. im Auftrag des Sächsischen Staatsministeriums für Wirtschaft und Arbeit. November 2005. p. II.

³⁴ Interview SAB. Use ibid

³⁵ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000-2006 (Los 4) Endbericht. November 2005. Use ibid

³⁶ Interview SMWA 1.

Table 10. Payments project type services fostering networks

		Urban regions	strong intermediate	weak intermediate	weak rural	overall
population 01.01.2007	rel.	44%	14%	37%	4%	100%
employees 30.06.2006	rel.	52%	12%	32%	3%	100%
projects	abs	1081	179	876	54	2212
	rel.	49%	8%	40%	2%	100%
payments (in Mio. €)						
ERDF	abs	291.5	30.2	112.0	5.0	442.3
	rel.	66%	7%	25%	1%	100%
national	abs	0	0	0	0	0
	rel.	0	0	0	0	0
federal state	abs	97.2	10.0	37.4	1.7	147.438.493,3
	rel.	66%	7%	25%	1%	100%
local	abs	0	0	0	0	0
	rel.	0	0	0	0	0
other public	abs	0	0	0	0	0
	rel.	0	0	0	0	0
private	abs	315.6	37.5	121.4	7.9	488.0
	rel.	65%	8%	25%	2%	100%
overall	abs	704.3	77.6	270.8	14.6	1077.8
	rel.	65%	7%	25%	1%	100%

Source: SMWA (ERDF related payments in Saxony for the program 2000-2006 between 01.01.2000 and 30.06.2008)

Altogether, more than €1bn were spent on fostering business networks. 45% was financed by the Länder, about 40% by the ERDF and 5% by private capital. The urban regions benefited most with about two-thirds of the budget. Another quarter of the budget went to projects in weak intermediate regions. Only 7% went to strong intermediate regions (about €78m). The weak rural regions received just 1% of all the ERDF funding and 1% of the Länder budgets as well as 2% of private capital in this time. This is altogether €14.5m in weak rural regions for the support of business networks.

Regarding the allocation in relation to population and employees it is obvious that the urban regions benefit most. The weak intermediate as well as the strong intermediate benefit disproportionately little. The weak rural benefit with a total amount of €5m ERDF funding. This allocation is in line especially with the allocation of the project type R&D. This is due to the fact that the target group of these funded project types is located in the urban areas.

The R&D funding in the two above-mentioned measures (individual and collaborative R&D projects) was fully financed by the ERDF. No additional funding programmes were available. Regional distribution was not an aim of these measures because R&D funding has to be focussed on technology and excellence not on equal regional distribution.³⁷ Applications for funding were twice as high than the available funds so half the applications were rejected.³⁸

³⁷ Interview SAB, Interview SMWA 1, Interview Evaluator.

³⁸ Interview SAB.

Conclusions

An assessment of the extent of the impact of the ERDF on fostering business networks is not really possible. The funding of networks is highly complex, diverse and covered by a lot of national and regional programmes, e.g. a) network managers in the field of automobile, railway, aviation, textile and renewable energies funded by Free State aid, b) funding of co-operation between SME by the so-called medium-sized businesses regulation, network funding and regional management financed by the Joint Task, the Federal Ministry of Education and Research as well as two super clusters and the Free State excellency initiative.³⁹

In addition, the ERDF funding was not used for direct support of networks until 2004. The ERDF was dedicated to bigger projects of around €80,000 to €100,000. A differentiation between rural and urban was again not made and is not regarded as useful, i.e. it could be that the companies were located in rural as well as in urban areas.⁴⁰

³⁹ Interview SAB, Interview SMWA 4.

⁴⁰ Interview SMWA 5.

3 Case Study Conclusions

3.1 Complementarities and specificities between ERDF and the other funds

Planned Structural Fund expenditure in Saxony was about €4.7bn (67% ERDF, 18% ESF and 15% EAGGF). The ERDF was mostly used for the project types transport infrastructure, investment into business units, environmental measures and services fostering networks. The project types social infrastructure and human resources were mostly supported by the ESF and the project types agriculture, forestry and fisheries were mostly supported by the EAGGF. There were some project types where the planned expenditures were covered by more than one fund. This is for example the case of investments into business which were supported by the ERDF (98%) and the EAGGF (2%) and the project type services fostering entrepreneurship which was supported by the ESF (93%) and the ERDF (7%).

The division of tasks between the funds can be characterised as follows: The ERDF was responsible for infrastructure projects, support of enterprises (especially SME), support of R&D projects etc.; the ESF was person-related and responsible for capacity building, education and training. The whole territory of Saxony was eligible under these two funds or, to put it differently, there was no spatial demarcation between urban and rural. In contrast, the EAGGF was mainly responsible for the target group of farmers and in addition had a spatial demarcation or a demarcation by scale (number of inhabitants in villages restricted to 2,000 (5,000 as an exception) or project scales) and by target groups.

With respect to the contribution of the funds to rural development, the update of the mid-term evaluation of the Objective 1 Operational Programme for Saxony 2000-06 comes to the following conclusions:

- The local distribution of the EAGGF and the ERDF funds is fundamentally different. The EAGGF is – with the exception of the centre – more or less equally distributed across in the state. However, some parts of the state (e.g. the districts of Kamenz and the city of Hoyerswerda) receive a comparatively low proportion of the funding.⁴¹
- In addition to the EAGGF, the ERDF also contributes to rural development. Within the Operational Programme, 35 percent of Priority 1: Promotion of business competitiveness, especially for SMEs, 37 percent of Priority 2 (Infrastructural measures), and 59 percent of Priority 3 (Protection and improvement of the environment) are spent in rural areas according to the Spatial Development Plan classification. The money is concentrated along the spatial development axes and hardly reaches the periphery of the rural regions. With a view to the jobs created, the rural areas are underrepresented as compared to their share of population. Most jobs are created in the cities and their surroundings.⁴²

In reality, the implementation of the funds was not systematically coordinated. But the question is whether the coordination has to be done during implementation or if the coordination has to be done in advance on the political level which means that the funding instruments have to be coordinated with the overall political aims.⁴³ That would mean that there has to be a much stronger coordination and search for synergies in advance of the programming phase (positive co-ordination). Actually, the demarcation of the funds and measures demonstrated coordination by demarcation.

⁴¹ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000-2006 (Los 4) Endbericht. November 2005. p. 38.

⁴² Ibid. p. V.

⁴³ Interview Evaluator.

3.2 The impact of ERDF interventions on rural development

The impact of the ERDF interventions on rural development is greater than initially expected for the following reasons:

- The ERDF funding was not restricted to urban or rural areas. As a result all types of regions were eligible.
- Especially in the field of investments into infrastructure and businesses, additional incentives for weak regions were given. The principle behind the allocation of infrastructure funding was that every region should benefit, and in the field of investments into business units, higher funding rates were offered in structurally weak regions.

Table 11. Allocation of payments, population and employees in comparison to the WP 9 rural typology and project types (related to the assessed research questions)

		urban region	strong intermediate	weak intermediate	weak rural	Saxony
Population (01.01.2007)	abs.	1867791	599003	1566758	186648	4220200
	rel.	44%	14%	37%	4%	100%
Employees (30.06.2006)	abs.	698007	164344	433369	46847	1342567
	rel.	52%	12%	32%	3%	100%
ERDF payments referred to the research questions (WP9 projects types, in Mio.€)						
Investment into business units	abs.	149.4	60.8	240.1	16.6	466.9
	rel.	32%	13%	51%	4%	100%
Investments into transport infrastructure	abs.	251.7	104.9	338.0	40.1	734.6
	rel.	34%	14%	46%	5%	100%
Investments into telecom. infrastructure	abs.	30.7	11.2	28.4	3.3	73.6
	rel.	42%	15%	39%	4%	100%
Investments into energy infrastructure	abs.	1.7	1.0	2.3	0.2	5.3
	rel.	32%	20%	44%	3%	100%
Support of R&D	abs.	214.3	0	7.3	0	221.6
	rel.	97%	0	3%	0	100%
Fostering networks	abs.	291.5	30.2	112.1	5.0	442.3
	rel.	66%	7%	25%	1%	100%
ERDF payments in Mio. €(30.06.2008)	abs.	1337.8	423.3	1259.7	125.4	3146.3
	rel.	43%	13%	40%	4%	100%

Source: SMWA, Statistisches Landesamt Sachsen

Nevertheless, the spatial allocation of the ERDF was not planned in advance. There was no spatial/regional budgeting. The update of the mid-term evaluation of the Objective 1 OP states that: *'Regional patterns of development show more or less stable groups of winners and losers. The border regions in eastern Saxony are mainly in danger of being continuously left behind. This raises questions regarding the policies of balanced development as challenges may arise concerning the development of different visions for the development of the centres on the one hand and the periphery on the other.'*⁴⁴ In addition, the *'funding is regionally highly concentrated: more than a quarter of ERDF funding goes to the urban centres Dresden, Chemnitz and Leipzig.*

⁴⁴ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000 bis 2006 – Schwerpunkte 1 bis 3 (Los 1). Endbericht. im Auftrag des Sächsischen Staatsministeriums für Wirtschaft und Arbeit. November 2005. S. II.

These three, together with six more districts, receive more than half of the ERDF subsidies, with the rest going to the 20 remaining districts. Subsidies to enterprises have the highest concentration, whilst environmental measures of Priority 3 have the lowest concentration.⁴⁵ Nevertheless, with the exception of the project types 'support of R&D' and 'fostering networks', the ERDF funding was allocated in proportion to the population and employees of the different regional types.

For the project types 'support of R&D' and 'fostering networks', the uneven regional distribution of funding was caused by the demand-driven funding approach: The targeted R&D businesses are not located in the weak rural regions. Taking into account that the weak rural type only concerns two districts in Saxony (Niederschlesischer Oberlausitzkreis, Torgau-Oschatz) it is worth thinking about whether these two districts need additional support instead of questioning the logic of the ERDF funding. The allocation of funds to the strong intermediate regions is similar to that allocated to the weak rural but they have less problems with their economic development in general.

The main beneficiary of the project types 'support of R&D' and 'fostering networks' are the urban regions. Urban regions received 97% of the funding for R&D projects and 66% of the total funding for projects fostering networks. In contrast, the urban areas profit disproportionately little from support to business and transport infrastructure investments.

The impact of ERDF interventions is most significant in the weak intermediate regions. Given that all areas were eligible for funding and no prior regional allocations were made, the allocation was demand-driven. The disproportionately low contribution of the ERDF to the weak rural regions was a consequence of this approach. The low contribution to strong intermediate regions can also be assessed as positive because the districts within this type have a strong economic base and do not need as many subsidies as the weak intermediate. The fact that the majority of the R&D and network support funding went to urban areas is not astonishing: most R&D intensive businesses are located in cities.

To sum up, the impact of the ERDF focused on economic development and the creation of jobs. Despite the demand-driven funding approach⁴⁶ of the ERDF and the disproportionate allocation of funds to some project types, the direct (funding) was well targeted and with respect to the hypotheses developed in the framework of the research, larger than initially expected. The role of ERDF funding for rural development is characterised by supporting the basic conditions for economic development as well as fostering existing growth potential. Although the ERDF had no explicit compensation-orientated focus in some fields the demand-driven ERDF funding approach was added by the above mentioned integration of the spatial dimension into funding measures (investments into infrastructure in a way that all regions benefit) or higher funding rates for structurally weak regions (investments into businesses) to improve rural development.

⁴⁵ IfS Institut für Stadtforschung und Strukturpolitik GmbH (2005): Aktualisierung der Halbzeitbewertung des Operationellen Programms zur Strukturfondsförderung des Freistaates Sachsen 2000 bis 2006 – Schwerpunkte 1 bis 3 (Los 1). Endbericht. im Auftrag des Sächsischen Staatsministeriums für Wirtschaft und Arbeit. November 2005. S. II.

⁴⁶ An ex ante spatial or technology related budgeting is rejected by all interviewees (avoidance of political steering of economic development). In the field of R&D and investments into business units the demand-driven and market orientated funding approach is regarded as appropriate and successful. In addition a concentration on growing poles is also rejected.

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