

# **WP1: Synthesis report**

Ex post evaluation of Cohesion Policy programmes 2007-2013, focusing on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF)

# **Task 3 Country Report Germany**

September 2016



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Contact: Violeta PICULESCU

 $\textit{E-mail:} \ Violeta. PICULESCU@ec.europa.eu$ 

European Commission B-1049 Brussels

# WP1: Synthesis report (contract number 2014CE16BAT016)

Ex post evaluation of Cohesion Policy programmes 2007-2013, focusing on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF)

# Task 3 Country Report Germany

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# List of abbreviations

AIR	Annual Implementation Report
ERDF	European Regional Development Fund
ETC	European Territorial Cooperation
EU	European Union
GDP	Gross Domestic Product
GDFCF	Gross Domestic Fixed Capital Formation
MC	Management Committee
MA	Managing Authority
NSRF	National Strategic Reference Framework
NUTS	Nomenclature of Territorial Units for Statistics
OP	Operational Programme
R&D	Research and Development
RTD	Research and Technological Development
SME	Small and Medium Enterprise



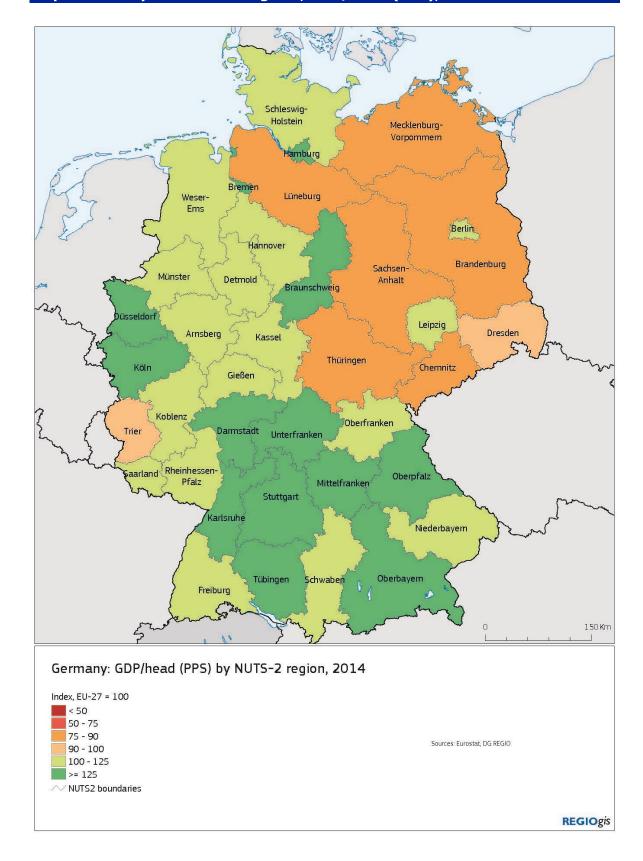
# List of programmes and link to beneficiaries of ERDF and Cohesion Fund support

CCI	Name of OP	Link beneficiaries	Number of
			projects
2007DE161PO001	OP Thüringen 2007 bis 2013	http://www.efre- thueringen.de/efre/efre/bequenstigtenliste/	9 596
2007DE161PO002	OP Brandenburg 2007- 2013	http://www.efre.brandenburg.de/cms/detail.php/bb1.c.152602.de	6 443
2007DE161PO003	OP Mecklenburg- Vorpommern	http://www.europa-mv.de	3 767
2007DE161PO004	OP Sachsen 2007-2013	http://www.strukturfonds.sachsen.de/download/ Bequenstigtenverzeichnis 12.2014.pdf	43 128
2007DE161PO005	OP Verkehr EFRE Bund	http://www.bmvi.de/DE/VerkehrUndMobilitaet/verkehr-und-mobilitaet_node.html	55
2007DE161PO006	OP Niedersachsen - Region Lüneburg 2007- 2013	http://www.stk.niedersachsen.de/download/8877	4 122
2007DE161PO007	OP Sachsen-Anhalt 2007-2013	http://www.europa.sachsen-anhalt.de/eu-fonds-in-sachsen-anhalt/liste-der-beguenstigten/	7 128
2007DE162PO001	OP Bayern 2007 - 2013	http://www.stmwi.bayern.de/EFRE/Wettbewerbsf aehigkeit Beschaeftigung/Transparenz/	1 569
2007DE162PO002	OP Saarland 2007 – 2013	http://www.saarland.de/	na
2007DE162PO003	OP Schleswig-Holstein 2007-2013	http://www.ib-sh.de/die-ibsh/foerderprogrammedes-landes/zukunftsprogramm-wirtschaft/	1 506
2007DE162PO004	OP Berlin 2007-2013	http://www.berlin.de/sen/wirtschaft/gruenden- und-foerdern/europaeische- strukturfonds/efre/programme/2007- 2013/artikel.109267.php#OPalt6	6 241
2007DE162PO005	OP Hessen 2007-2013	https://wirtschaft.hessen.de/landesentwicklung/regionalplanung/eu-regionalfoerderung/transparenz	929
2007DE162PO006	OP Bremen 2007 - 2013	http://efre- bremen.de/sixcms/media.php/13/BEGUENSTIGTE NVERZEICHNIS Stand%2027%2006%202013 V ersion Web.23300.pdf	696
2007DE162PO007	OP Nordrhein- Westfalen 2007-2013	http://www2.efre.nrw.de/	591
2007DE162PO008	OP Baden- Württemberg 2007- 2013	http://www.rwb-efre.baden- wuerttemberg.de/oeffentlichkeitsarbeit/	1 498
2007DE162PO009	OP Hamburg 2007- 2013	http://www.hamburg.de/contentblob/3117844/d ata/efre-beguenstigte.pdf	64
2007DE162PO010	OP Niedersachsen (ohne Region Lüneburg) 2007-2013	http://www.stk.niedersachsen.de/download/8877	4 122
2007DE162PO011	OP Rheinland-Pfalz 2007-2013	http://efre.rlp.de/foerderperiode-2007- 2013/publizitaet/verzeichnis-der-beguenstigten/	968

Note: The web links above are to websites of the respective Managing Authorities who, under the rules governing the 2007-2013 programmes were required to publish the names of the beneficiaries of the funding allocated. The number of projects supported has been estimated on the basis of the information published on the website at the time when the data were downloaded. In the meantime the data concerned may have been updated. It may also be that the data have been moved to another part of the website, in which case the link may not work. If this is the case, those who wish to locate the data concerned will need to go to main OP website, as indicated by the beginning part of the link and search from there.



# Map 1 Germany and NUTS 2 regions, GDP/head (PPS), 2014





# **Preliminary note**

The purpose of the country reports is to provide for each Member State a short guide to the findings of the ex post evaluation of Cohesion policy programmes 2007-2013 undertaken by DG Regional and Urban Policy and an overview of the context in which the programmes were carried out. It is based on information produced by Task 1 and Task 2 of WP1 and on the country specific findings from the various WPs that form the ex post evaluation. These are listed below with an indication in brackets of the case studies carried out in the Member State concerned.

WPO - Data

WP1 - Synthesis

WP2 - SMEs, innovation and ICT (case study OP Sachsen)

WP3 - Venture capital, loan funds (case study OP Bayern)

WP4 - Large enterprises (case study OP Thüringen)

WP5 - Transport (case study Leipzig City Rail Tunnel)

WP6 - Environment

WP8 - Energy efficiency (country report Germany)

WP9 - Culture and tourism

WP10 - Urban development and social infrastructure

WP11<sup>1</sup> - European Territorial Cooperation (case studies Deutschland-Nederland, Sachsen-Czech Republic, South Baltic and Baltic Sea Region Programme)

WP12 - Delivery system (case studies OPs Nordrhein-Westfalen (ERDF and ESF) - National ESF OP)

WP13 - Geography of expenditure

WP14 - Impact modelling

<sup>&</sup>lt;sup>1</sup> The findings from WP11 – European Territorial Cooperation are summarised in a separate report as part of Task 3 of WP1.



# **Executive summary**

The German economy was hit hard by the global recession in 2008-2009 but recovered quickly over the next two years. From 2012, however, growth slowed down and over the programming period as a whole was significantly less than anticipated when the programmes were drawn up. Combined with budgetary consolidation, this limited the funds available for co-financing. At the same time, employment expanded and the unemployment rate in 2015 was only 5%, half the EU average. Job creation was, therefore, less of a priority than in the rest of the EU.

Regional disparities in GDP per head and employment also narrowed over the 2007-2013 period, as they had done over the preceding period, as Convergence regions in the East grew faster than Competitiveness regions in the West.

In total, support from the ERDF amounted to EUR 16.1 billion over the period, equivalent to 2.5% of Government capital expenditure, although 4-5 times this percentage in Convergence regions, where funding averaged around EUR 111 per head each year. The programmes' implementation rate, as reflected in payments of the ERDF from the EU in relation to the funding available, was relatively consistent over the programming period, apart from an initial delay due to the overlap with the previous period. At the end of March 2016, payments amounted to 91% off the ERDF available suggesting that all the funding was probably spent by the end of 2015 as required.

The ERDF was mainly used to support RTD, innovation, RTD and SMEs in both Convergence and Competitiveness regions. In the Convergence regions transport infrastructure was also supported. In broad terms, some 80% of funding was focussed on strengthening the potential for economic growth in both types of region, 20% on social cohesion and sustainability. The distribution of funding between policy areas changed relatively little over the period, priority being given to long-term development objectives.

Overall, the measures co-financed over the period contributed directly to the creation of over 108 000 jobs, almost 45 000 of them in full-time equivalent terms in SMEs and around 5 400 research ones. This was achieved partly through the support given to 8 294 RTD projects, 8 262 projects to help firms finance investment and another 3 368 projects to assist cooperation between SMEs and research centres.

In addition, support for investment in transport infrastructure, concentrated mainly in the eastern part of the country, led to the construction of 294 km of new roads, 101 km of them part of the trans-European Transport Network (TEN-T), and 185 km of new railway lines, 159 km of them part of the TEN-T. It also led to the improvement of 365 km of roads and 249 km of railway lines. As a result, transport links were strengthened both between the eastern regions and other parts of Germany and within the regions themselves.

Although for the share of funding going to investment in environmental infrastructure was relatively small, it resulted in an additional 213 thousand people being connected to new or upgraded wastewater treatment facilities, most of them in the east of the country.

Overall, the additional investment supported is estimated to have increased GDP in Germany in 2015 by 0.24% over and above what it would been in the absence of the policy, while GDP in 2023 is estimated to be 0.4% higher as a result, even allowing for the contribution made by Germany to the financing of the policy. Much of this gain comes from the German share of the increase in trade generated by the additional investment in other parts of the EU.



# 1. The policy context and background

#### 1.1. Macroeconomic situation

Like other countries, Germany was hit hard by the global recession in 2008-2009. Although GDP fell significantly, it also recovered more quickly than in most other Member States. From 2012 on, however, growth was hesitant (Table 1).

Over the programming period, although growth (except in 2008-2009) was positive and in the two years 2009-2011 was almost 4% a year, the average rate of growth was less than 1% a year and below even the modest rate experienced over the 2000-2006 programming period. It was certainly less than the growth rate anticipated at the time when the 2007-2013 programmes were prepared, making less financial resources available to co-fund the programmes.

Despite the slow rate of GDP growth, employment was broadly maintained even during the period when GDP fell sharply. Jobs were created at a particularly high rate in 2010 and 2011 as the economy recovered, and continued to be created in the following years. Accordingly, in 2015 the employment rate was more than 5 percentage points higher than at the beginning of the period in 2007 and the unemployment rate nearly 4 percentage points lower, at less than 5%, half the EU average. The employment performance was a result not only of the high rates of growth following the recession but also of government support for jobs and the policy of employers to avoid redundancies during periods of recession and economic slowdown. The growth of so-called 'mini' jobs (jobs with short hours of work and low rates of pay) contributed to the increase in employment as well. Although the European Council has questioned their sustainability<sup>2</sup>, they have, nevertheless, helped to keep down unemployment and to maintain social cohesion.

Table 1 GDP growth, employment and unemployment, Germany and the EU, 2000- 2015

	2000-07	2007-09	2009-11	2011-13	2013-14	2014-15
GDP growth			(Annual av	erage % pa)		
Germany	1.4	-2.3	3.9	0.4	1.6	1.7
EU average	2.3	-2.0	1.9	-0.1	1.4	1.9
	2000	2007	2009	2011	2013	2015
Employment rate (% 20-64)						
Germany	68.7	72.9	74.2	76.5	77.3	78.0
EU average	66.5	69.8	68.9	68.6	68.4	70.1
Unemployment rate (% lab						
force)						
Germany	7.9	8.7	7.7	5.8	5.2	4.6
EU average	9.2	7.1	8.9	9.6	10.8	9.3

Source: Eurostat, National accounts and Labour Force Survey

The recession led to an increase in Government spending on support policies and a reduction in tax revenue, pushing the budget, from being in broad balance, into a deficit of over 3% of GDP in 2009 and 4% in  $2010^3$ .

In response, the Federal Government implemented a number of budget consolidation packages (*Konjunkturpakete*) to raise revenue and cut spending as well as introducing legislation to combat fiscal drag (*kalte Progression*) in relation to income tax. The effect, together with the high rate of GDP growth, was virtually to eliminate the deficit by 2012.

<sup>3</sup> This prompted the European Council to implement procedures against the country. See Council Decision of 19 January 2010 on the existence of an excessive deficit in Germany (2010/285/EU).

<sup>&</sup>lt;sup>2</sup> European Semester, Staff Working Document, Germany, 2013, p. 18.



Table 2 Government budget balance, accumulated debt and investment, Germany and the EU, 2000-2015

	2000	2007	2009	2011	2013	2015
Public sector balance		(% GDP)				
Germany	0.9	0.2	-3.2	-1.0	-0.1	0.7
EU average	0.0	-0.9	-6.7	-4.5	-3.3	-2.4
Public sector debt	Public sector debt					
Germany	58.8	63.5	72.4	78.3	77.2	71.2
EU average	60.6	57.9	73.1	81.1	85.5	85.2
General Government investment						
Germany	2.3	1.9	2.4	2.3	2.2	2.2
EU average	2.9	3.2	3.7	3.3	3.0	2.9

Source: Eurostat Government financial accounts

# 1.2. Regional Disparities

Disparities in GDP per head between German regions narrowed appreciably in the 1990s and over the 2000-2006 programming period and, in overall terms, remained broadly unchanged over the 2007-2013 period. In the Convergence regions, i.e. the eastern *Länder*, GDP per head in PPS terms was much the same relative to that in the Competitiveness regions (the Western *Länder*) in 2014 as in 2007. Growth in the two 'Phasing-out' regions (Lüneburg and Leipzig), however, was higher than in the Competitiveness regions (see Country folder for Germany). Nevertheless, disparities in employment narrowed. The unemployment rate fell by more than 10 percentage points between 2006 and 2015 in the Convergence regions (from 17% to just over 6.5%), as opposed to a fall of just over 4 percentage points (from almost 9% to 4.3%) in the Competitiveness regions.

At the same time, disparities between the Eastern and the Western *Länder* which have been the focus of development policy since unification in 1990 are becoming blurred. Disparities are growing within Western and Eastern *Länder*. In Western *Länder*, regions undergoing profound structural change have faced major socio-economic problems (e.g. the northern part of the Ruhrgebiet and Bremen and Bremerhaven), while in the Eastern *Länder* disparities have widened, the larger urban areas growing faster than others (e.g. growth of Leipzig in the 2007-2013 period meant that it was no longer eligible for support under the Convergence Objective in 2014-2020).

# 2. Main features of Cohesion Policy implementation

## 2.1. Nature and scale of Cohesion Policy in the country

The priorities of the German National Strategic Reference Framework (NSRF) for the 2007-2013 period were: (1) to support innovation and development of the knowledge-based society and to strengthen competitiveness; (2) to increase the attractiveness of regions for investors and people alike through their sustainable development; (3) to respond to new labour market challenges; and (4) to develop opportunities and reduce regional differences. Responsibility for regional policy lies at the *Länder*-level and the Structural Funds were essentially used to co-finance their long-established development strategies built on these four priorities, although with varying importance attached to each of them.

In total, EUR 16.1 billion from the ERDF was allocated to the 2007-2013 programmes, equivalent overall to just 0.1% of German GDP over the period but to around 2.5% of Government capital expenditure (Table 3). The funding going to Convergence regions in the east of the country was around 4-5 times greater in relation to GDP or Government capital expenditure, amounting to EUR 111 per head per year over the period; over 10 times as much as went to Competitiveness regions in the west.



Table 3 ERDF and national co-financing for the 2007-2013 period in Germany, initial (2007) and last (April 2016)

	2007							
	EU funding	National public funding	National private funding	Total	EU funding	National public funding	National private funding	Total
EUR million								
Convergence	11 361.1	3 743.7	461.6	15 566.4	11 361.1	3 747.3	457.8	15 566.3
Competitiveness	4 746.9	3 679.7	2 403.3	10 829.8	4 739.3	3 609.0	2 548.5	10 896.8
Total	16 108.0	7 423.4	2 864.9	26 396.2	16 100.4	7 356.3	3 006.3	26 463.1
Change, 2007-								
2014								
Convergence					-	3.6	-3.8	-0.1
Competitiveness					-7.6	-70.7	145.3	67.0
Total					-7.6	-67.1	141.5	66.9
% GDP	0.09	0.04	0.02	0.14	0.09	0.04	0.02	0.14
% Govt. capital								
expend	2.5	1.1	0.4	4.1	2.5	1.1	0.5	4.1
Per head (EUR) pa of which:	28.1	13.0	5.0	46.1	28.1	12.8	5.3	46.2
Convergence	110.9	36.6	4.5	152.0	110.9	36.6	4.5	152.0
Competitiveness	10.1	7.8	5.1	23.0	10.1	7.7	5.4	23.2
EU15								
% GDP	0.13	0.09	0.01	0.24	0.13	0.06	0.01	0.21
% Govt. capital								
expend	3.1	2.0	0.3	5.5	3.1	1.4	0.3	4.8
Per head (EUR) pa of which:	40.7	26.4	4.3	71.4	40.5	18.2	4.3	63.0
Convergence	145.3	74.8	9.6	229.7		41.6	8.7	195.6
Competitiveness	16.1	15.0	3.1	34.1	15.9	12.6	3.2	31.8

Note: EU funding relates to decided amounts as agreed in 2007 and as at 14 April 2016. The figures for % GDP and % Govt. capital expenditure relate to funding for the period as % of GDP and General Government capital expenditure aggregated over the years 2007-2013. Govt. capital expend is the sum of General Government gross fixed capital formation and capital transfers. The EU15 figures are the total for the EU15 countries for comparison.

Convergence and Competitiveness categories for EU15 include the Phasing-out and Phasing-in regions, respectively. For Germany, the Phasing-out regions of Lüneburg and Leipzig are included in the Convergence category.

Source: DG Regional and Urban Policy, Inforegio database and Eurostat, national accounts and Government statistics

The four priorities set out above were pursued through 18 Operational Programmes: 17 regional OPs (1 for each *Land* at NUTS 1 level except for Lüneburg, the only region at NUTS 2 level) and one national OP for Transport, which was under the Convergence Objective. Around 70% of funding went to OPs under the Convergence objective (61% to six regional OPs and 9% to the national OP for Transport) and the rest went to the 11 regional OPs under the Competitiveness Objective.

# 2.2. Division of funding between policy areas and changes over the period

The distribution of ERDF financing between broad policy areas differed in the Convergence regions from that in the Competitiveness regions (Table 4). In particular, a larger share of funding in the former went to Transport, reflecting the priority given to improving the communication links, especially roads, both within the eastern part of the country and between the regions located there and the rest of Germany. Conversely, a larger share of funding in the Competitiveness regions went to support for enterprises and, more especially, to RTD and innovation. Overall, a similarly large proportion of funding in the two groups went to policy areas aimed mainly at economic objectives (items 1, 2 and 5 in Table 4) with only a minor share going to areas aimed largely at social and sustainability objectives (items 3 and 4).



Table 4 Division of ERDF financing for the 2007-2013 period in Germany by broad category

	Convergence		Competive	ness
	EUR mn	% total	EUR mn	% total
1.Enterprise support, innovation	5 315.3	46.8	2 672.8	56.4
2.Transport, energy, ICT	3 605.6	31.7	567.7	12.0
3.Environmental	1 020.3	9.0	374.2	7.9
4.Social, culture+territorial dimension	1 174.3	10.3	689.5	14.5
5.Human capital - Labour market	20.2	0.2	301.0	6.4
6.Technical assistance, capacity building	225.4	2.0	134.1	2.8
Total	11 361.1	100.0	4 739.3	100.0

Note: Distribution of decided amounts of funding as at 14 April 2016. Territorial dimension' includes support for urban and rural regeneration and tourist services and measures to compensate for climate conditions. Source: DG Regional and Urban Policy, Inforegio database.

In more detail, nearly a third of the total funding available went to innovation and RTD, a fifth went to transport and only a slightly lower share to investment projects in enterprises and to promote entrepreneurship. The remaining resources were set aside to environment and territorial dimension and to a lesser extent for culture (Table 5)<sup>4</sup>.

Table 5 Division of financial resources in Germany for 2007-2013 by category theme, initial (2007) and last (April 2016) and shift between categories

	EUR million				% Total		
Category	2007	2016	Added	Deducted	Net shift	2007	2016
1.Innovation & RTD	4 347.7	4 709.8	814.7	-452.6	362.1	27.0	29.3
2.Entrepreneurship	574.2	446.0	33.9	-162.1	-128.2	3.6	2.8
3.Other investment in							
enterprise	2 891.0	2 832.3	61.3	-119.9	-58.6	17.9	17.6
4.ICT for citizens & business	320.2	304.8	42.1	-57.5	-15.4	2.0	1.9
5.Environment	1 560.2	1 394.5	116.8	-282.4	-165.6	9.7	8.7
6.Energy	479.1	623.1	211.9	-67.9	143.9	3.0	3.9
7.Broadband	19.2	88.8	69.6	-	69.6	0.1	0.6
8.Road	2 072.7	2 082.8	31.8	-21.7	10.1	12.9	12.9
9.Rail	794.5	766.3	-	-28.2	-28.2	4.9	4.8
10.Other transport	326.0	307.6	39.3	-57.7	-18.4	2.0	1.9
11.Human capital	129.6	114.6	-	-14.9	-14.9	0.8	0.7
12.Labour market	227.8	206.6	10.6	-31.8	-21.2	1.4	1.3
13.Culture & social							
infrastructure	791.9	739.4	67.5	-120.0	-52.5	4.9	4.6
14.Social Inclusion	5.6	2.8	-	-2.9	-2.9	-	-
15.Territorial Dimension	1 207.7	1 121.5	31.7	-117.9	-86.1	7.5	7.0
16.Capacity Building	19.6	26.4	7.4	-0.6	6.8	0.1	0.2
17.Technical Assistance	341.0	333.1	34.0	-42.0	-8.0	2.1	2.1
Total	16 108.0	16 100.4	1 572.7	-1 580.3	-7.6	100.0	100.0

Note: 'Added' is the sum of additions made to resources in OPs where there was a net increase in the funding going to the category. 'Deducted' is the sum of deductions made to resources in OPs where there was a net reduction in funding. 'Social inclusion' includes measures to assist disadvantaged groups and migrants. 'Territorial dimension' includes support for urban and rural regeneration and tourist services and measures to compensate for climate conditions.

Source: DG Regional and Urban Policy, Inforegio database, April 2016

Over the programming period, there were only small shifts of funding between policy areas – at least, those requiring Commission approval because they altered the initially agreed division of funding significantly – so that the underlying pattern of priorities remained much the same. Accordingly, funding continued to be concentrated on the long-term objective of strengthening the potential of regions for economic development and there was little or no reallocation of funding to offset the short-term effects of the crisis.

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<sup>&</sup>lt;sup>4</sup> The 17 categories shown in the table are aggregations of the more detailed 87 categories into which expenditure was divided in the period for reporting purposes.

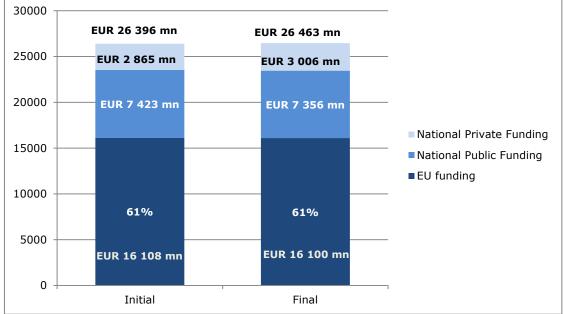


The main changes were an increase in funding going to innovation and RTD, which was offset by a reduction in funding for small firms and for business investment other than for RTD and innovation (Table 5). Funding was also increased for investment in energy supply, especially in renewables, and was cut back on environmental infrastructure. The overall pattern of shifts between policy areas in Convergence and Competitiveness regions was almost the same but the relative amount of funding shifted was larger in the latter.

# 2.3. Policy implementation

The average EU co-financing rate (61%) remained unchanged over the period, while the amount of national public funding going to programmes declined slightly in relation to what was initially planned (Figure 1). This was more than offset by an increase in private funding, which meant that the overall amount available for programmes rose a little.

FUR 26 306 mp.



Source: DG Regional Policy financial data, 14 April 2016

Apart from an initial delay due to the overlap with the previous period, the programmes' implementation rate, as reflected in payments from the Commission, was relatively stable over the period. At the end of March 2016, payments from the ERDF for expenditure incurred amounted to 91% of the funding available (Figure 2). Given the lag between expenditure on the ground and payments for it being claimed and made and the fact that 5% of funding is held back until all the expenditure is approved, this suggests that all the funding was spent by the end of 2015, in line with the regulations.



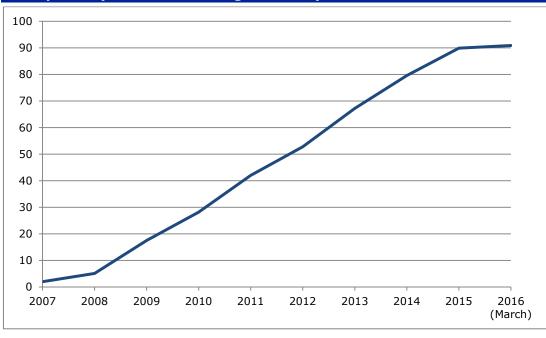


Figure 2 Time profile of payments from the ERDF to Germany for the 2007-2013 period (% of total funding available)

Source: DG Regional Policy financial data, end-March 2016

# 2.4. Delivery system (WP12)

An evaluation of the management and implementation of Cohesion policy over the 2007-2013 period was carried out by WP12<sup>5</sup>. In Germany, the delivery system was based on a stable institutional framework and a high level of administrative capacity. An important factor of success was considered to be the involvement of regional and sectoral representatives in the formulation of the strategy through consultation which ensured a better understanding of the various priorities on the ground.

In addition, experience and continuity with the previous programming period played a fundamental part in developing the strategy of many Operational Programmes in the period. This bottom-up approach, however, did not preclude the pursuit of EU objectives.

In addition to the high level of capacity of MAs, intermediate bodies such as regional development agencies and Chambers of Commerce) contributed to the effective implementation of programmes. They often played an important role in accelerating the rate of absorption of funding and in supporting beneficiaries in developing and implementing projects. In particular, the involvement of bodies, such as public or quasi-public specialist agencies and state-owned banks with the requisite resources and know-how, was identified as good practice in the organisation of calls for proposal and project selection.

On the other hand, the evaluations carried out over the programming period were mainly focused on the implementation of OPs rather than on the impact of the measures supported.

<sup>5</sup> A case study was carried out as part of Case study reports (Task 3), Delivery System, WP12, see <a href="http://ec.europa.eu/regional-policy/en/policy/evaluations/ec/2007-2013/#17">http://ec.europa.eu/regional-policy/en/policy/evaluations/ec/2007-2013/#17</a>.



# 3. The outcome of Cohesion Policy programmes – main findings from the ex post evaluation

The main findings summarised here come from the evaluations carried out under the Work Packages (WPs) which made up the ex post exercise. These covered in detail the following policy areas:

- Support to SMEs increasing research and innovation in SMEs and SME development (WP2);
- Financial instruments for enterprises (WP3);
- Support to large enterprises (WP4);
- Transport (WP5);
- Environment (WP6);
- Energy efficiency in public and residential buildings (WP8);
- Culture and tourism (WP9);
- Urban development and social infrastructure (WP10);
- European Territorial Cooperation (WP11);
- Delivery system (WP12);
- Geography of expenditure (WP13);
- The impact of cohesion policy 2007-2013: model simulations with Quest III and Rhomolo (WP14).

All of these are relevant for Germany. The evaluation of ETC (WP11), it should be noted, is the subject of a separate report. The findings of WP12 were outlined above, while the estimates produced by WP13 on the allocation of funding and expenditure between regions are not considered here<sup>6</sup>.

## 3.1. Enterprise support and innovation (WP2, WP3 and WP4)

The funding allocated to specific projects supporting enterprises and innovation amounted to about EUR 8 billion, or around half of the ERDF allocation for Germany. Of this, two-thirds was invested in Convergence regions in the east of the country. The larger part of the funding (around 60%) went to RTD and innovation projects, while around 35% went to support other investments in enterprises, mainly in SMEs but also larger enterprises.

Overall, up to the end of 2014, 8 294 RTD projects had been supported, along with 3 368 projects of cooperation between companies and research institutes. The support provided helped to start up 748 new businesses and co-financed 8 262 investment projects in SMEs. In total over the country as whole, an estimated 44 699 full-time equivalent jobs in SMEs, in gross terms, were created as a direct result of the funding together with 5 418 research jobs (see Table 6 at the end of this section).

## SME support, R&D and innovation (WP2)

Despite the economic and financial crisis, value-added and employment increased significantly in SMEs in Germany over the programming period, along with expenditure on R&D and capital investment<sup>7</sup>.

http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards en.

<sup>&</sup>lt;sup>6</sup> They are available at: <a href="http://ec.europa.eu/regional-policy/en/policy/evaluations/ec/2007-2013/#1">http://ec.europa.eu/regional-policy/en/policy/evaluations/ec/2007-2013/#1</a>.

 $<sup>^{7}</sup>$  The European Innovation Scoreboard 2016 also indicates that Germany has a strong innovation performance well above the EU average, see



As compared with other Member States, ERDF co-financing was concentrated on a relatively small number of types of support for SMEs<sup>8</sup> (6 to 9 in the OPs examined as opposed to an average of 13 in the EU as a whole) (see Box on Sachsen)<sup>9</sup>. Support predominantly took the form of non-repayable grants to individual SMEs, or groups of small firms, but also to large enterprises (see below).

## Sachsen case study<sup>10</sup>

Over a third of the ERDF funding allocated under the Convergence Objective to Sachsen in the east of the country was used to support R&D and innovation in SMEs through a smaller number of instruments than in most other OPs, though mostly in the form of grants. The firms receiving the support were largely those with existing R&D strategies or with fairly precise investment plans. The ERDF helped to realise these but in some cases, the study finds that deadweight effects are evident, in the sense that some of the firms would have gone ahead with the investment even without the support, although perhaps on a smaller scale or at a later time. In total, 7 771 enterprises (6% of all those in the region) received support. Of these, some 40% were engaged in medium-to-high tech industries, a substantially larger proportion than the share of these industries in the regional economy, indicating the relative concentration of funding on strategic parts of manufacturing with the potential to act as drivers of growth. According to the case study, the objective of increasing the R&D undertaken by the SMEs supported was achieved. In addition, the ERDF offset the effect of the crisis by co-financing projects which otherwise would not have been carried out because of the funding shortage.

#### Financial Instruments for enterprises (WP3)

While grants represented the predominant form of support to SMEs and innovation in Germany, some 6% of the overall funding provided took the form of Financial Instruments (FIs), i.e. loans, guarantees, equity funds or a mix of these.

Support to FIs amounted to EUR 1.5 billion at the end of 2014, including national cofinancing. Some 62% came from the ERDF and 82% of the funding paid into FIs had reached final recipients by the end of  $2014^{11}$ .

FIs were used as a means of supporting enterprises in all German OPs except in Bremen and Saarland (both of which plan to introduce FIs in the 2014-2020 period). Altogether, funding went into 40 different FIs, operated through specific Funds, rather than through Holding Funds used in many other countries. Most FIs took the form of loans, intended to compensate for the lack of bank credit for SMEs and business startups. The individual amounts involved varied from EUR 5 000 (e.g. micro loans in Nordrhein-Westfalen) to up to EUR 10 million, e.g. the SME Fund in Berlin and the Mezzanine Fund in Sachsen, while the repayment period ranged from 3 to 20 years.

Some support also went to venture capital funds set up mainly to provide equity finance to innovative enterprises (in some cases specifically to relatively new firms and business start-ups). The intention in these cases was for the funds to hold the shares for an average of 5-7 years.

<sup>&</sup>lt;sup>8</sup> Examples are for instance individual R&D grants for SMEs or for groups of SMEs to carry out collaborative research, grants for technology transfer in partnership with universities and research institutions, investment grants or loans to expand or diversify businesses, support for networking between SMEs or for promoting entry to international markets, grants for developing IT-based new business models or for introducing energy efficient production processes.

<sup>&</sup>lt;sup>9</sup> The approach of WP2 was to examine in detail 50 OPs selected because of the relatively large amount of funding going to SMEs and innovation of which 5 concerned German regions: Brandenburg, Sachsen, Sachsen-Anhalt, Berlin and Nordrhein-Westfalen. See Support to SMEs – Increasing Research and Innovation in SMEs and SME Development", WP2, first intermediate report, Vol. I,

 $<sup>\</sup>frac{\text{http://ec.europa.eu/regional policy/sources/docgener/evaluation/pdf/expost2013/wp2\ 1st\ intermediate\ re\ port\ 1.pdf}{\text{and Vol. II}}$ 

http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp2\_1st\_intermediate\_re\_port\_2.pdf.

<sup>&</sup>lt;sup>10</sup> The full case study report can be consulted here:

http://ec.europa.eu/regional policy/sources/docgener/evaluation/pdf/expost2013/wp2 case study de.pdf

11 Fourth Progress Report in financing and implementing financial engineering instruments, DG REGIO,
September 2015.



Evidence from the German case study suggests that venture capital funds had important spill-over effects, giving enterprises access to new investors and facilitating entry into new markets (see Box on Bayern).

#### Bayern case study12

The Bayern OP provided support to three risk capital funds and one loan fund. The total provided amounted to EUR 105 million, EUR 55 million of which came from the ERDF. The main reason for introducing FIs in the 2007-2013 period was to compensate for temporary shortages of credit on the regional financial market. For every Euro put into the funds by the Managing Authority, between EUR 4.9 and EUR 20.4 was attracted from private investors. In addition, repayments by borrowers meant that some 25% of the finance in the loan fund was available for a second round of lending.

An important added value of the equity funds was the access to new investors and new markets, which fund managers provided both directly and indirectly through their contacts. The case study demonstrated that the mobilisation of business angels is an important element in venture capital funds functioning well. The ERDF Cluster Fund was particularly successful in this regard and was identified as an example of good practice in the evaluation.

Although the effects on employment and value added of the funding invested by final recipients cannot yet be fully assessed because projects are still on-going, evidence from a mid-term evaluation suggests that they are significant.

# Large enterprises (WP4)

Although SMEs were the main target group for public support schemes, the aim being to reduce their competitive disadvantage vis-à-vis large firms, part of the funding also went to support large enterprises. In practice, around EUR 840 million, or some 12% of the funding from the ERDF allocated for direct support to enterprises in Germany (3% of the total ERDF available), went to large enterprises in the form of investment grants. The funding co-financed 762 projects in 632 large enterprises, an average of EUR 1.1 million per project. Two thirds of large firms supported were engaged in manufacturing, half of these in high-to-medium high tech industries, and the rest in services (13% in advanced services). Some 80% of the firms concerned were German companies, many of them multi-nationals, while 20% were branches of foreign multinationals<sup>13</sup>.

The main justification for support was the view that large enterprises are a major driver of growth in a region and that they are critically important for the development of SMEs. This is not only true directly, through their purchase of goods and services (many SMEs produce only for larger companies rather than for final consumers), but also indirectly, through various kinds of spill-over effects. These include, in particular, the technology and associated know-how. At least in the case of the region studied (Thüringen), these effects seem to have materialised (see Box).

# Thüringen case study<sup>14</sup>

The evaluation carried out under WP3 examined OPs in 8 countries. One of these was the OP for Thüringen, which allocated around EUR 275 million to support for large enterprises and accounted for some 28% of the ERDF going to such support in Germany. Altogether, 252 investment projects were co-financed in 178 companies through non-refundable grants. Support was justified in terms of the crucial role of large enterprises in the development of SMEs in the region through the various kinds of spill-over effect, which lead to the spreading of technological advances and new knowledge.

<sup>&</sup>lt;sup>12</sup> The full case study report can be consulted here:

http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp3\_final\_en.pdf.

13 It should be noted that much of the support went to branches of companies which employed less than

<sup>250</sup> people, the cut-off point for defining whether an enterprise is large or medium-sized. If considered in isolation, therefore, a branch concerned might be regarded as an SME, though it might be many times bigger than this if all the branches are taken into account, as they should be.

<sup>&</sup>lt;sup>14</sup> The full case study report can be consulted here:



The case study found that the results, which support was intended to produce, materialised in practice to a large extent. Investment was expanded and employment increased significantly. Large enterprises were estimated to account for 50% of the 8 456 jobs directly created in the region by the end of 2013 as a result of the projects carried out with support. There is no certainty that the support provided represented the main reason for the projects concerned being undertaken, since many other factors potentially influenced the investment decisions of the large enterprises in question.

Nevertheless, a case study of a domestic multinational in the automotive industry suggests that ERDF support was decisive in determining that the investment concerned should be in Thüringen (i.e. the investment would probably have been undertaken without ERDF support but not in Thüringen). A further finding from the case study was that a lack of the support for large enterprises could possibly lead to some firms relocating to other countries with more favourable investment conditions, or at least to them carrying out new projects there rather than in Germany.

# 3.2. Transport (WP5)

The funding allocated to transport was concentrated mainly in the regions supported under the Convergence Objective in the east of the country. Overall, it amounted to around EUR 3.2 billion or nearly 20% of total ERDF support for Germany. This, however, was only a very small proportion of the overall investment in transport infrastructure in the country carried out over the programming period, i.e. just around 3%, except in the eastern *Länder*, which showed a more significant percentage. Of this, over two thirds was invested in roads, a quarter in rail and the rest in other forms of transport, mainly waterways.

Half of the ERDF going to transport was allocated to major transport projects, 31 in total, over 80% of them undertaken in order to complete the Trans-European Network (TEN-T).

Funding helped to construct 294 km of new roads, 20.5 km of which were in Convergence regions, and 101 km of which were part of the TEN-T, and to improve another 770 km of roads. It also co-financed the construction of 185 km of new railway lines, 159 km of which were on the TEN-T, and the modernisation or upgrading of a further 249 km of lines, all of them in the eastern part of the country (see Table 6).

The projects carried out have led to an improvement in the transport links between the less developed parts of Germany in the east and the rest of the country. They have also improved links within the eastern regions (see case study on Leipzig), including the connections with sea ports on the Baltic coast and inland waterway links to Poland.

#### Leipzig City Rail Tunnel case study<sup>15</sup>

The 'Leipzig City Rail Tunnel' provides an underground link between the two main rail stations. It has been a transport priority for over a century and became a firm part of both regional and local policy in 1993. Work began in the 2000-2006 period and the construction of the final two modules, which was the subject of the case study, started in October 2007. The tunnel opened in December 2013, six months earlier than planned.

The cost amounted to EUR 193 million, which was in line with the forecast. The work was, therefore, completed to budget and on time (in sharp contrast to the first phase of the project). The number of passengers using the rail link since it opened is in line with forecasts. The project is expected to provide a net economic benefit and to be financially sustainable.

## 3.3. Environmental infrastructure (WP6)

Some EUR 1.4 billion of the ERDF was allocated to environmental projects in the 2007-2013 period, 9% of the total available. Of this amount, only just over a quarter

<sup>&</sup>lt;sup>15</sup> The full case study report can be consulted here: http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp5\_task3\_en.pdf.



(28%), some EUR 377 million, was allocated to infrastructure projects, to water supply, wastewater treatment and waste management, which were the focus of the evaluation carried out under WP6. In Germany, the infrastructure concerned for the most part already met the standards required by the EU Directives in this area, which were the main motivation in other countries for directing funding to such investment. Most of the projects undertaken were in the Convergence regions, aimed mainly at improving water supply or wastewater treatment. The amount of funding involved was very small in relation to Government capital expenditure in this area, but, nevertheless, by the end of 2014, the investment co-financed had resulted in an additional 213 thousand people being connected to new or improved wastewater treatment facilities (Table 6), all but 31 000 of these in the eastern part of the country. It had also led to the completion of 24 projects aimed at improving the management of solid waste, all of them in Convergence regions.

# 3.4. Energy efficiency in public and residential buildings (WP8)

Some EUR 391 million of the ERDF, only 2% of the total, was allocated to energy efficiency projects in Germany, around 60% of the funding went to projects in the Convergence regions, 40% to those in the Competitiveness ones. The projects concerned involved improving energy use in various areas, in public and residential buildings, SMEs and transport as well as in managing energy supply more efficiently. In total, 473 projects were co-financed, mostly through non-repayable grants. This contrasts with the national support provided, which tends to be in the form of preferential loans. Social housing was among the schemes supported, as well as the building of new residential houses financed through loans from the German  $UmweltBank^{16}$ .

# 3.5. Culture and tourism (WP9)

Investment in culture and tourism, although not a major priority of Cohesion policy, was supported by all German Ops, except one, and  $13^{17}$  of the 18 OPs invested over EUR 15 million. Overall, EUR 733 million of the ERDF support received, or 5% of the total, was allocated to these two areas: some 41% went to support culture and the remaining largest part to tourism. A significant part of the latter (22% of the total going to culture and tourism) went to support investment in individual hotels and restaurants, mostly in the eastern part of the country and mainly in rural areas; the rest served to improve tourist facilities more generally. Support was almost exclusively in the form of non-repayable grants.

According to the Managing Authorities surveyed, the main motivation for providing support to culture and tourism was to help diversify the regional economy. The MAs regarded both activities as interrelated, using culture as a magnet to attract more tourism. In addition, support for cultural activities was considered a way of strengthening social cohesion by preserving local traditions and making the activities concerned more widely accessible.

Although projects in support of tourism were carried out in most regions (or at least in 10 of the 13 covered by the evaluation), only two (Mecklenburg-Vorpommern, a Convergence region, and Schleswig-Holstein, a Competitiveness region) reported how many jobs were created in tourism as a result<sup>18</sup>. Up to the end of 2014, the two reported the creation of 1 587 gross jobs in the sector, 1 103 of these in the Convergence region, as a direct result of the support provided. Since neither was

Westfalen, OP Niedersachsen, OP Bayern, OP Brandenburg, OP Sachsen-Anhalt, OP Niedersachsen, OP Thüringen, OP Schleswig-Holstein, OP Berlin, OP Rheinland-Pfalz, OP Mecklenburg, OP Hessen and OP Sachsen.

<sup>&</sup>lt;sup>16</sup> Energy efficiency in public and residential buildings, WP8, final report, p. 40, http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp8\_final\_report.pdf.

<sup>&</sup>lt;sup>18</sup> Apart from the number of tourist projects (627 in total), this was the only core indicator to cover these two policy areas.



among the regions spending most on support for tourism, this suggests that over the country as a whole, the number is likely to have been substantially greater.

# 3.6. Urban development and social infrastructure (WP10)

A relatively large amount of funding went to investment in integrated urban development projects and social infrastructure, particularly in the form of education, health and childcare facilities. In total, some EUR 1.5 billion of the ERDF support went to projects in these areas, 10% of the overall amount available, mostly again in the Convergence regions.

The evaluation carried out under WP10 focused on 115 Ops, which invested more than EUR 22 million in these two broad areas. In Germany, 6 of these were Competitiveness regions and 6 Convergence regions<sup>19</sup>. While in the Competitiveness regions, funding went either primarily or exclusively to urban development projects, in the Convergence regions (and in Sachsen, in particular) this was combined with investment in schools, colleges and other educational infrastructure and, to a lesser extent, in social infrastructure. In total, 70% of the funding went to urban and rural regeneration, 25% to educational infrastructure and the rest to health and childcare facilities.

Evidence on achievements, however, is scarce. The only core indicator reported by the MSs relates to land rehabilitated, which amounted to 44 km<sup>2</sup> at the end of 2014. Of this, 60% was in the eastern part of the country, mainly in Thüringen, while in the Competitiveness regions, it was mainly in Hamburg.

# 3.7. ETC (WP11)

Germany was involved in four Interreg programmes financed under the Cross-border Cooperation strand of the ETC Objective. These were, respectively, with France, Italy, the Netherlands and the Czech Republic. The ETC-funded programmes are the subject of a separate report.

## 3.8. Impact on GDP (WP14)

In Germany, investment supported by Cohesion and rural development policies over the 2007-2013 period amounted to only around 0.1% of GDP a year. The investment concerned is estimated to have increased GDP in 2015, at the end of the programming period, by just over 0.24% above the level it would have been in the absence of the funding provided even after taking explicit account of the contribution made by Germany to the financing of the policy $^{20}$ . In 2023, 8 years later, GDP is estimated to be 0.4% higher than it otherwise would be. The net gain to GDP is primarily a result of the increased trade generated by the policy in other parts of the EU, especially in Convergence regions, of which Germany is a major beneficiary.

## 3.9. Overview of achievements

In addition to the achievements reported above under the different WPs, the ERDF is reported by MAs to have resulted in the direct creation of over 108 000 jobs up to the end of 2014, while support for investment in renewable energy added 210 Megawatts to the overall capacity to produce electricity from renewables, equivalent to around 0.8% of total capacity in 2006 (Table 6). It should be emphasised that since not all

<sup>&</sup>lt;sup>19</sup> Competitiveness regions: Bayern, Berlin, Hessen, Bremen, Nordrhein-Westfalen, Niedersachsen (excluding Lüneburg); Convergence regions: Thüringen, Brandenburg, Mecklenburg Vorpommern, Sachsen, Lüneburg and Sachesn-Anhalt.
<sup>20</sup> Estimates by the Quest model, a new-Keynesian dynamic general equilibrium model in kind widely used in

economic policy research, developed by DG Economic and Financial Affairs to assess the effects of policies. See The impact of Cohesion Policy 2007-2013: model simulations with Quest III, WP14a, final report, <a href="http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp14a\_final\_report\_en.pdf">http://ec.europa.eu/regional\_policy/sources/docgener/evaluation/pdf/expost2013/wp14a\_final\_report\_en.pdf</a>.



MAs reported data for all core indicators, the figures tend to understate achievements, perhaps substantially. In addition, the data reported relate to the situation one year before the official end of the period in which funding could be spent, so do not include the outcomes of the projects completed during this time.

Table 6 Values of core indicators for ERDF co-financed programmes in Germany for 2007-2013 period, as at end-2014

Core		
Indicator		Value up to end-
Code	Core indicator name	2014
0	Aggregate Jobs	108 134
1	JJobs created	104 012
4	Number of RTD projects	8 294
5	Number of cooperation projects enterprises-research institutes	3 368
6	Number of research jobs created	5 418
7	Number of direct investment aid projects to SMEs	8 262
8	Number of start-ups supported	748
9	Number of Jobs created in SMEs (gross, full time equivalent)	44 699
14	km of new roads	294
15	km of new TEN-T roads	101
16	km of reconstructed roads	770
17	km of new railroads	185
18	km of TEN-T railroads	159
19	km of reconstructed railroads	249
24	Additional capacity of renewable energy production (MW)	210
26	Additional population served by waste water projects	212 962
29	Area rehabilitated (km2)	44
35	Number of jobs created in tourism	1 587

Note: The figures in the table are those reported by MAs in Annual Implementation Reports. Core indicators for which no data were reported by the Member State are not included. The aggregate jobs indicator is based on an examination by the Commission of all gross job creation reported for each priority axis and is regarded as the most accurate figure for the total number of gross jobs directly created as a result of funding. It tends to be higher than the sum of the figures reported by MAs for the core indicators relating to jobs created because of some MAs failing to report anything for these indicators.

Source: Annual Implementation Reports, 2014 and DG Regional Policy post-processing of these, August 2016



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