Geography of Expenditure

Final Report
Work Package 13

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

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ISMERI EUROPA

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WP13: geography of expenditure

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Abstract

The study on "Geography of expenditure" is one of the Work Packages of the ex post evaluation of Cohesion Policy programmes 2007-2013, which focuses on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). Its purpose was to collect data on the cumulative allocations to selected projects and the expenditures of both ERDF and CF programmes at the NUTS3 level of EU regions for all 28 EU countries and covered the Convergence, Regional Competitiveness and Employment (RCE) as well as the European Territorial Cooperation (ETC) Objectives for the period 2007-2013. Data was collected, with the support of a network of national experts, from the Managing Authorities of 303 OPs, directly at the NUTS3 level where available, broken down by 86 priority themes. Estimates were performed when data were available at lower level of detail (e.g. NUTS1, NUTS2). As part of the study, the 2007-2013 dataset was consolidated with similar data for the period 2000-2006, to create a unified database for the last two programming periods at NUTS2 level. The study also investigates the feasibility of further extending the database and creating a single time series from 1994 onwards. The results of data collection and estimation at NUTS3 as well as of consolidation at NUTS2 level are shown in maps to provide some first insights into the distribution of funds and trends over programming periods. The data collected and estimated in the study is stored in easy-to-use databases (2007-2014 and 2000-2014) to make the information available for further analysis by the Commission (e.g. econometric analysis of the impact of Cohesion Policy 2007-2013), the research community and the general public.

Kurzabriss

Die Studie über die „Geographie der Ausgaben" (engl. „Geography of expenditure") ist eines der Arbeitspakete der Ex Post Evaluation der Kohäsionspolitik Programme 2007-2013 unter dem Europäischen Fond für regionale Entwicklung (EFRE) und dem Kohäsionsfond (KF). Die Hauptaufgabe der Studie bestand in der Sammlung von Daten für alle 28 EU Mitgliedsstaaten bezüglich der kumulierten Zuweisungen und Ausgaben der Gemeinschaftsmittel des EFRE und KF auf NUTS3 Ebene. Dabei konzentrierte sich die Datensammlung auf die Ziele a) „Konvergenz", b) „Regionale Wettbewerbsfähigkeit und Beschäftigung" und c) „Europäische territoriale Zusammenarbeit". Die Daten wurden mit Hilfe eines Netzwerkes nationaler Experten direkt von den Verwaltungsbehörden von 303 Operationellen Programmen bezogen. Dabei wurde darauf geachtet, dass - falls möglich - diese Daten sowohl auf NUTS3 Ebene als auch aufgeschlüsselt auf 86 Investitionsprioritäten durch die VB bereit gestellt werden. In jenen Fällen, wo dies nicht möglich war und Daten nur auf einem weniger detaillierten Aggregationsniveau (z.B. NUTS1 oder NUTS2) verfügbar waren, wurden diese Daten durch einer Reihe von Schätzerfahren auf das geforderte Detailniveau gebracht. Ein weiteres Ziel der Studie war die Konsolidierung der Daten für die Periode 2007-2013 mit ähnlichen Daten für die Periode 2000-2006 zur Erstellung einer einheitliche Datenbank der letzten zwei Programmperioden auf NUTS2 Ebene. Außerdem analysierte die Studie noch die Möglichkeit einer Erweiterung dieser konsolidierten Datenbank hinsichtlich der Periode 1994-1999. Die Ergebnisse der Datensammlung, Schätzungen und Konsolidierung werden graphisch durch Karten illustriert, die erste Rückschlüsse auf die Mittelverteilung und deren Änderung über die zwei Programmperioden zulassen. Die gesammelten und geschätzten Daten wurden in zwei leicht handhabbaren Datenbanken (für die Periode 2007-2013 als auch 2000-2013) gespeichert, um sie so auf einfache Art für weitere Analysen durch die Kommission, die Forschungsgemeinschaft und der breiteren Öffentlichkeit zur Verfügung zu stellen.

Résumé

L'étude sur la « Géographie des dépenses » (angl. « Geography of expenditure ») est l'un des lots de tâches de l'estimation ex post des programmes de la politique de cohésion 2007-2013 dans le cadre du Fonds européen de développement régional (FEDER) et du Fonds de cohésion (FC). La tâche principale de l'étude consistait à recueillir des données pour les 28 Etats membres de l'UE concernant les allocations et les dépenses cumulées des financements communautaires du FEDER et du FC au niveau NUTS3. La collecte de données se concentra sur les objectifs a) « Convergence », b) « Compétitivité et emploi régionaux » et c) « Coopération territoriale européenne ». Les données provenaient directement des Autorités de gestion (AG) de 303 Programmes opérationnels avec l'aide d'un réseau d'experts nationaux. Ce faisant, on veilla à ce que – dans la mesure du possible – ces données soient fournies par les AG aussi bien au niveau NUTS3 que ventilées en fonction de 86 priorités d'investissement. Dans les cas où ceci ne fut pas possible et où les données n'étaient disponibles qu'à un niveau d'agrégation plus élevé (p. ex. NUTS1 ou NUTS2), ces données furent portées au niveau de détail exigé par une série de procédures d'estimation. Un autre objectif de l'étude fut la consolidation des données pour la période 2007-2013 avec des données semblables pour la période 2000-2006 pour l'établissement d'une banque de données unique des deux dernières périodes de programme au niveau NUTS2. L'étude analyse en outre encore la possibilité d'élargir cette banque de données consolidée relativement à la période de 1994-1999. Les résultats de la collecte de données, des estimations et de la consolidation sont illustrés graphiquement par des cartes permettant de tirer des premières conclusions sur la répartition des fonds et sur leur modification sur les deux périodes du programme. Les données collectées et estimées furent stockées dans deux banques de données conviviales (aussi bien pour la période 2007-2014 que 2000-2014), pour les mettre ainsi facilement à disposition pour des analyses plus poussées par la Commission et les rendre accessibles au grand public.

Table of Contents

1. INTRODUCTION

1.1. *Purpose of the study*

This is the Draft Final Report produced within the Work Package 13 – Geography of Expenditure – of the ex post evaluation of Cohesion Policy 2007-2013, focusing on the European Regional Development Fund (ERDF) and Cohesion Fund (CF). The purpose of the study was to collect data on the cumulative allocations to selected projects as well as the expenditures of both ERDF and CF programmes under the Convergence, Regional Competitiveness and Employment (RCE) as well as the European Territorial Cooperation (ETC) Objectives for the period 2007-2013. The study was intended to cover 304 ERDF and CF programmes[1], out of the total 322 OPs, including Cross Border Cooperation programmes[2].

The study goal was to gather data at the NUTS 3 level of EU regions, broken down by the 86 priority themes defined in the Commission Regulation No 1828/20. Estimates have been performed in case of missing data. The collected and estimated data have been stored in an easy-to-use database, so that data are available for further use by the Commission and the general public. Results of the data collection and estimation are also published in the form of maps, to provide first insights on the regional distribution of ERDF and CF allocations and expenditure.

Furthermore, the produced dataset was consolidated with similar data for the period 2000-2006, to create a unified database for the last two programming periods at NUTS2 level. Finally, the study investigates the data assembled for the period 1994-1999, as part of an ESPON study[3], to explore the feasibility of further consolidation over time.

The collection of data from 304 Managing Authorities (MAs) was a very challenging and time spending task. The effort made proved to be fully successful as the results presented in this report show. However, the process took more time than what was initially envisaged in the Inception Report, leading to a slight shift in the estimation schedule. The timing and milestones of the data collection and of the estimation are described in chapter 3.

1.2. *Tasks, scope of the study and contents of the report*

Overall, the study is organised in 6 tasks. These are briefly summarised below:

Task 1 – Data collection. The team carried out a stocktaking exercise aimed at exploring the available data and identifying the existing gaps and pitfalls at the NUTS 3 level and by the 86 ERDF and CF priority themes for 2013 and 2014. The task relied on information available from DG Regio and the relevant Managing Authorities, to gather all

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[1] At the end of the process data on 303 OPs were assembled and included in the database (see chapter 3 for more information on the process and chapter 4 for information on the database).
[2] Some cooperation programmes were excluded: Transnational cooperation programmes, Interact, ESPON, URBACT and Peace III were excluded (the codes of the excluded OPs are: 2007CB163PO007; 2007CB163PO008; 2007CB163PO014; 2007CB163PO015; 2007CB163PO020; 2007CB163PO022; 2007CB163PO027; 2007CB163PO029; 2007CB163PO042; 2007CB163PO043; 2007CB163PO044; 2007CB163PO045; 2007CB163PO046; 2007CB163PO048; 2007CB163PO049; 2007CB163PO055; 2007CB163PO061; 2007CB163PO069).
[3] Nordregio, 2005, 'The territorial effects of the Structural Funds', ESPON project 2.2.1.

existing data. The work in this task was carried out by the consortium members for what concerns Austria and Italy, and by a network of national experts for the 26 remaining EU Member States. This network played a key role in liaising with Managing Authorities, collecting data, identifying shortcomings, information to be verified, and gaps to be covered through estimation.

The network of experts set up for the study was used to working together with the core team and on Commission assignments. First, the experts have been briefed on the main goals and then they received guidelines and a common template for a standardised data collection procedure.

Following a request of the Commission, Croatia which was not initially included in the list of countries to be covered as per ToR, was added after the first Steering Group meeting. The need for hiring an additional expert required to redistribute slightly the effort among tasks and allocate more resources and time to Task 1.

Task 2 – Estimation. The team developed a methodology to estimate the regional breakdown of allocation and expenditure data, in the cases where Task 1 was not successful in collecting NUTS3 data. Task 2 took account of the Commission's needs to have a transparent but at the same time reliable estimation, to develop a methodology that satisfies these needs. The methodology is flexible to account for variations in the regional distribution of funds, which may differ depending on a) regions falling under the Convergence or Regional Competitiveness and Employment objective, b) the priority theme, c) the country in which regions are located, and d) other regional characteristics (see the section on estimation below).

Task 3 – Application of the estimation methodology. In this task, the team used the method developed in Task 2 to estimate the missing regionalised data and combined it with the already regionalised data of Task 1. As part of this task, a number of consistency and robustness checks have been carried out to verify the data.

Task 4 – Mapping. 5 maps were produced to illustrate the first results of the study: one general map showing the territorial dimension of allocations and expenditures for infrastructure, productive investment and human capital; four other maps on the following dimensions: transport, environment, research and enterprise support.

Task 5 – Consolidation with 2000-2006. The team consolidated the constructed database with the database created for the period 2000-2006. To this purpose, a correspondence table between priority themes was used to combine the data from both periods. 6 Maps were produced to show the changes between 2000-2006 and 2007-2013 allocations to selected projects by policy theme.

Task 6 – Exploration of 1994-1999 data. The team explored similar data for the period 1994-1999 created by an ESPON study with the aim to verify to what extent they could be used and integrated with the 2000-2014 data at NUTS2 level.

The report is organised in 9 chapters, including this introduction, and a set of annexes.

Chapter 2 of this report describes the methodology for collecting data on allocations to selected projects4 and expenditure at NUTS 3 level by priority theme.

Chapter 3 provides a detailed description of the process followed to gather the data.

Chapter 4 presents the assembled Excel dataset before estimation (BE) as well as an explanation of the checks carried out.

Chapter 5 provides a presentation of the estimation methodology and the results of the estimation which are included in a second version of the Excel dataset (AE – after estimation) described in Chapter 6.

The maps produced on the basis of the assembled data are displayed in Chapter 7.

Chapter 8 describes the process followed to consolidate the Database with 2000 – 2006 data (CS – consolidated data) and displays some of the results of this exercise through additional maps.

Chapter 9 provides an assessment of the possibility to further extend the consolidation to the 1994-1999 period.

Five Excel files are annexed to the report:

1. The first file is the Database (DB) before the estimation (DB_WP13_july_BE) which includes five spreadsheets:

   - README: a description of the file and its various sheets, as well as of the variables covered in the database.

   - DATA_BE_July: the actual set of data collected and assembled Before Estimation.

   - Checking_NUTS: quality checks carried out on NUTS codes, errors found as well as actions taken.

   - Checking_Programmes: quality checks by programme, also with respect to the SFC data provided by the Commission.

   - Checking_% expert calculations: share of resources, in each programme, which were "calculated" by breaking down amounts available at lower level of detail.

2. The second Excel file annexed is the final Database (after estimation) at NUTS3 (DB_WP13_NUTS3_AE)

3. The third file is the Final Database (after estimation) at NUTS2 (DB_WP13_NUTS2_AE).

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[4] Allocations to selected projects do not necessarily correspond to planned financial resources. The difference between these two values is mostly due to overbooking (i.e. commitments in excess of actual available funds), which is used by many MAs in order to avoid loss of resources (e.g. in case some projects are cancelled).

4. The fourth file is the Database at NUTS2 consolidated with the 2000-2006 data (DB_WP13_NUTS2_CS_V1), variant 1 (differences between variants are explained in Chapter 8).

5. The fifth file is the Database at NUTS2 consolidated with the 2000-2006 data (DB_WP13_NUTS2_CS_V2), variant 2.

In the BE Database, the programmes that required additional expert calculations to breakdown data from lower to higher level of detail, show additional information on the percentages of data that were calculated. These shares of data calculated on the basis of the two main approaches recommended in the guidelines (by population and location) are available per programme and increase the transparency of the Database. As this reports shows, the share of calculated data is modest.

2. METHODOLOGY FOR DATA COLLECTION

2.1. Main activities

The main activities carried out in Task 1 are: a) data gathering, b) development of a database and basic documentation. The main features of these activities are summarised in the following points:

- **Gathering data** on allocation to selected projects and expenditure at NUTS 3 level by the 86 priority themes for the ERDF and CF for 2013 and 2014. This activity required strong coordination between the core research team and the national experts. The latter had an important role in collecting information from the Managing Authorities (MAs) and validation. The goal was to minimise gaps and therefore estimation, which entails, in any case, a certain error.

- **Developing an Excel database** with documentation storing the collected data and the estimations (see also Task 2). The Database contains information on allocations and expenditures broken down to NUTS 3 regions and by the 86 priority themes. The Database was fed constantly during the duration of the service. It is structured as an Excel file which includes a minimum set of information: country, programme, list of NUTS[5], year (2013-2014), priority theme (no. 86), monetary values (allocation to selected projects, expenditure), sources and notes. The Database is provided with all the necessary explanations such as the definition and meaning of the variables, the sources and note on the figures, the estimation methods etc.

2.2. Data collection procedure and tools

The main sources of data include the information available at DG REGIO for the Member States and programmes which report allocation data by priority theme at NUTS 3 level, the relevant Managing Authorities for the missing information on 2013 allocations to selected projects and all MAs for 2014 data and for 2013 expenditure data. Compared to

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[5] As explained below, the NUTS 2006 definitions were adopted ('Extra-Regio' NUTS are excluded).

the study carried out in relation to 2000-2006 (SWECO), the present project collects also data on expenditure and not only allocations to selected projects.[6]

Procedure for collecting data on 2013 allocations to selected projects

In relation to 2013 allocations to projects, the team relied on both available SFC data as well as data collected from selected MAs by the national experts, in order to cover gaps. By contrast, in relation to 2014 allocations as well as 2013 and 2014 expenditures, all MAs have been contacted (see below).

Table 1: Share of data provided by NUTS level, total resources allocated and number of programmes across the EU28 (end of 2013)

Countries	NUTS 0	NUTS 1	NUTS 2	NUTS 3	EUR million	N° OPs
CY*	0.0	0.0	0.0	100.0	603	1
LU*	0.0	0.0	0.0	100.0	24	1
MT	0.0	0.0	0.0	100.0	708	1
CZ	0.0	0.0	11.1	88.9	17,631	14
HU	10.4	0.4	11.3	77.9	24,979	13
PT	1.1	6.5	20.8	71.6	15,759	10
IT	4.9	0.1	26.8	68.2	21,306	28
LV	0.0	0.0	41.7	58.3	3,733	2
NL	0.0	5.0	37.9	57.1	861	4
DE	0.1	10.5	37.6	51.9	14,681	18
SK	0.0	48.0	0.7	51.3	9,783	9
BE	0.0	37.6	19.5	42.9	997	4
UK	0.1	33.9	24.9	41.1	5,238	16
SI	0.0	64.0	0.8	35.1	3,536	2
FR	2.0	0.0	65.3	32.8	7,352	31
HR	0.0	67.4	0.0	32.6	643	3
DK	0.0	12.5	62.5	25.0	249	1
GR	0.2	0.0	84.4	15.5	25,189	10
RO	43.2	0.0	45.4	11.4	16,287	5
ES	0.2	0.0	88.8	11.1	20,551	23
BG	92.6	0.0	0.0	7.4	6,258	5
CB	85.9	3.4	4.8	5.9	5,247	55
AT	0.0	0.0	96.0	4.0	576	9
SE	0.0	0.0	96.2	3.8	970	8
FI	0.0	0.0	99.7	0.3	1,034	5
EE	0.0	0.0	100.0	0.0	2,903	2
IE	0.0	0.0	100.0	0.0	414	2
LT	0.0	0.0	100.0	0.0	5,693	2
PL	18.3	0.0	81.7	0.0	54,301	20
TOTAL	**11.7**	**4.7**	**48.9**	**34.8**	**267,506**	**304**

Note*: In Luxembourg and Cyprus national level correspond to NUTS 3
Countries are listed in order of % of data at NUTS 3 level.
Source: Own elaboration of Inforegio Data.
File: SFC07_06(c)_projectselection_AIR_rawdata_ERDF_CF_20150210

On the basis of the information updated at the end of 2013 and sent by MAs to the European commission, 35% of resources allocated to projects were available at NUTS 3 level, with a high variation among EU countries: some of them already provided data at NUTS 3 while others did not.

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[6] Allocations to selected projects were referred to as commitments in 2000-2006.

In terms of programmes, 63 out of 304 OP covered in the EC dataset were characterised by data on allocations to selected projects fully at NUTS 3 level: in relation to these programmes, the national experts checked with the MAs the value of available 2013 allocations (from SFC) and asked the MAs data on expenditure in 2013 and allocated amounts and expenditure in 2014.

169 programmes did not report any data at NUTS 3 level and in these cases the experts checked what information was available at highest level of detail (e.g. municipality, province, district, etc.) in order to aggregate them at NUTS 3 level. In some cases, the monitoring systems (sometimes centralised at national level) allowed this operation.[7]

In 72 programmes, data on allocations to selected projects were provided by the MAs at NUTS 3 level, but not for the total amount of allocated resources (the share of data provided at NUTS 3 ranges from as little as 2.54% in relation to the Slovak OP "2007SK161PO001" – Information society – to 99.38% in the German case "2007DE162PO003" – Schleswig-Holstein). In these cases the national experts completed the data for 2013 by collecting them from the MAs. Where resources allocated were not provided at NUTS3 level because projects could not be assigned to a single NUTS (because they concern several regions or are financed by national or multi-regional programmes), the national experts explored the possibility of breaking down the data in collaboration with the MAs. A particular attention was given to Major Projects[8]. In these cases the resources were broken down at NUTS 3 level on the basis of various criteria. Two main criteria were suggested in the guidelines: in case of infrastructure projects, the breakdown was done by location of the infrastructure (not necessarily the postal address of the project promoter); in case of business support or other services, the amounts were broken down by population served by the project or scheme. In each case, the final decision on the breakdown approach was taken by the expert in agreement with the MA, taking into account our guidelines, the nature of the actual interventions carried out by a specific programme as well as the availability of data (e.g. whether reliable data on location or output indicators exist).

Procedure for gathering data on 2014 allocations to selected projects as well as on 2013-2014 expenditure

The team followed the same approach described for 2013 allocations to selected projects; however, in this case *all MAs* had to be contacted. The collection of expenditure data did not entail particular differences as compared to allocations.[9]

Procedure for gathering data for Cross-Border Cooperation programmes

As of the end of 2013, the 55 cross-border cooperation programmes were characterised by a low detail at NUTS 3 level (as displayed in the table above). Also in the SWECO study on 2000-2006, the cross-border cooperation programmes were found 'problematic' in terms of data at NUTS 3 level.[10]

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[7] The Work Package 0 of the ex post evaluation of cohesion policy 2007-2013 found that even Managing Authorities that do not provide NUTS 3 level data often have this detail.
[8] According to the regulation, these are worth EUR 50 million.
[9] See also what MAs reported to WP 0 evaluators.
[10] See Sweco (2008), pp. 23-24.

As part of Task 1 of the present analysis, all the MAs of the CB Cooperation programmes have been contacted by the national experts. Programmes were allocated to the experts according to the location of the MA, as highlighted in the table below.

The following steps were taken in relation to CB Cooperation programmes:

- Checking the monitoring system, as in the case of national and regional Convergence/RCE programmes.

- If the necessary information was not available but there is an internal system of resource distribution/allocation and it is applied by the MAs, the methodology used for estimating and distributing resources was assessed.

- In case the results of these internal estimations are not reliable, the allocation and expenditure data is estimated following the procedure described in Task 2 (see the proposed methodology for estimation).

Table 2: CB Cooperation programmes according to location of MAs

Country	Programme	Country	Programme
AT	OP Objective European Territorial Cooperation Austria – Czech Republic 2007-2013	FR	Programme transfrontalier Grande Région
AT	OP Objective European Territorial Cooperation Austria – Hungary 2007-2013	HU	Hungary – Romania Cross-border Cooperation Programme 2007-2013
AT	OP Objective European Territorial Cooperation Slovakia – Austria 2007-2013	HU	Hungary – Slovakia Cross-border Cooperation Programme 2007-2013
AT	OP Ziel Europäische Territoriale Zusammenarbeit Deutschland/Bayern – Österreich 2007-2013	HU	Hungary-Croatia CBC Programme
BE	Grensregio Vlaanderen – Nederland – OP ETS 2007-2013	IE	Ireland Wales Programme
BE	INTERREG IV France – Wallonie – Vlaanderen	IT	PO Italia – Francia frontiera marittima
CZ	OP Česká republika – Polsko	IT	PO Italia – Malta 2007 -2013
DE	Programm Ziel 3 / Cíl 3 zur Förderung der grenzübergreifenden Zusammenarbeit Sachsen – Tschechien	IT	PO Italia – Francia Alpi (ALCOTRA) – Riprogrammazione finanziaria ottobre 2011
DE	Ziel 3-Programm zur grenzübergreifenden Zusammenarbeit Freistaat Bayern – Tschechische Republik 2007-2013	IT	OP di Cooperazione Transfrontaliera Italia – Svizzera 2007-2013
DE	Ziel 3-Programm zur grenzüberschreitenden Zusammenarbeit MV/BB – Polen	IT	Programma per la cooperazione transfrontaliera Italia – Slovenia 2007-2013
DE	OP zur grenzübergreifenden Zusammenarbeit Sachsen – Polen	IT	INTERREG IV A Italia/Austria
DE	INTERREG IVA Programm Deutschland – Niederlande	LT	Lithuania – Poland 2007-2013 European Territorial Cooperation Objective Operational Programme
DE	Interreg IV Alpenrhein – Bodensee – Hochrhein	LV	Latvia – Lithuania Cross-border Cooperation Programme
DK	INTERREG IV 'Fehmarnbeltregion' (Sjælland – Ostholstein – Lübeck – Plön)	NL	OP Euregio Maas Rijn 2007-2013
DK	INTERREG IV Syddanmark – Schleswig – K.E.R.N.	PL	OP Współpracy Transgranicznej Polska (Woj. Lubuskie) – Brandenburgia 2007-2013
EE	ESTONIA – LATVIA PROGRAMME 2007-2013	PL	Program współpracy przygranicznej Polska – Słowacja

ES	OP FEDER Cooperación Transfronteriza España – Francia	PL	Program współpracy przygranicznej Południowy Bałtyk
ES	OP FEDER Cooperación Transfronteriza España – Portugal	RO	Romania – Bulgaria Cross-Border Cooperation Programme 2007-2013
ES	Programa de Cooperación Territorial Transfronteriza España – Fronteras Exteriores 2008	SE	Sweden – Norway
GR	Interreg Greece – Cyprus (Ελλάδα – Κύπρος 2007-2013)	SE	Interreg IV Öresund – Kattegatt – Skagerrak
GR	Interreg Greece – Bulgaria (Πρόγραμμα Ευρωπαϊκής Εδαφικής Συνεργασίας Ελλάδα – Βουλγαρία)	SE	Botnia – Atlantica
GR	Interreg Greece – Italy (Πρόγραμμα Ευρωπαϊκής Εδαφικής Συνεργασίας Ελλάδα – Ιταλία)	SE	Nord INTERREG IVA
FI	Central Baltic INTERREG IV A Programme 2007-2013	SI	OP Slovenia – Austria 2007-2013
FR	OP INTERREG IV A Rhin supérieur	SI	OP Slovenia – Hungary 2007-2013
FR	Programme des 2 mers	SI	Operational programme Slovenia - Croatia 2007-2013
FR	Interreg IV A programme de coopération transfrontalière France (Manche) – Angleterre 2007-2013	SK	Program cezhraničnej spolupráce Slovenská republika – Česká republika 2007-2013
FR	OP CTE France – Suisse	UK	EU Programme for Cross-Border Territorial Cooperation (INTERREG IV) 2007-2013 – Northern Ireland, the Border Region of Ireland and the West Coast of Scotland
FR	OP CTE Amazonie		

NUTS definition

The NUTS 2006 definition was used because this version is applied to the European Commission dataset on allocations to selected projects and because it was legally in force at the moment of programming the 2007-2013 period. The complete list of NUTS 2006 was sent to the national experts. In case some MAs used a more updated definition of NUTS (2010) or an older one (2003), these were "converted" to the 2006 definition, on the basis of a correspondence table[11]. Section 4.3 of the report highlights the results of the checks of NUTS definitions used by the national experts after the first phase of data collection; the errors were corrected in the versions of the Database annexed to the report.

Priority given to some programmes

30 European programmes make up more than 50% of total financial resources. The experts were encouraged to start their investigation from the largest programmes identified by the core team. Our approach to focus first on these programmes was meant to ensure that, regardless of the possible shortcomings in the responses from the MAs, the data collection would cover the largest "chunk" of funds allocated and spent.

All data on the largest European programmes have been checked and included in the Database.

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[11] http://ec.europa.eu/eurostat/c/portal/layout?p_l_id=629283&p_v_l_s_g_id=0

Table 3: Largest European programmes: OPs that altogether make up 50% of total resources.

Country	CCI	Name of programme
BG	2007BG161PO005	Operational Programme Environment
CZ	2007CZ161PO004	OP Podnikání a inovace
DE	2007DE161PO004	Operationelles Programm EFRE Sachsen 2007-2013
ES	2007ES16UPO001	OP FEDER de Investigación, Desarrollo e innovación por y para el beneficio de las Empresas - Fondo Tecnológico
ES	2007ES161PO008	Programa Operativo FEDER de Andalucía
GR	2007GR161PO001	OP Competitiveness and Entrepreneurship (Ανταγωνιστικότητα και Επιχειρηματικότητα)
GR	2007GR161PO006	OP Attica region (Αττική)
GR	2007GR161PO005	OP Environment and Sustainable Development (Περιβάλλον - Αειφόρος Ανάπτυξη)
GR	2007GR161PO008	OP Central Macedonia (Μακεδονία – Θράκη)
GR	2007GR161PO004	OP Improvement of Accessibility (Ενίσχυση της Προσπελασιμότητας)
HU	2007HU161PO001	Economic Development Operational Programme
HU	2007HU161PO002	Operational Programme for Environment and Energy
HU	2007HU161PO007	Operational Programme for Transport
IT	2007IT161PO006	Pon Ricerca e competitivita' - Riprogrammazione - 03 giugno 2013
IT	2007IT161PO011	Por Sicilia FESR
IT	2007IT161PO009	Por Campania FESR
LT	2007LT161PO001	2007-2013 m. Sanglaudos skatinimo veiksmų programa
LT	2007LT161PO002	2007-2013 m. Ekonomikos augimo veiksmų programa
LV	2007LV161PO002	Infrastructure and Services
PL	2007PL161PO003	Program Operacyjny Rozwój Polski Wschodniej 2007-2013
PL	2007PL161PO001	Program Operacyjny Innowacyjna Gospodarka, 2007-2013
PL	2007PL161PO002	Program Operacyjny Infrastruktura i Środowisko
PT	2007PT161PO002	PO Regional do Norte 2007-2013
PT	2007PT161PO001	PO Factores de Competitividade 2007-2013
PT	2007PT16UPO001	PO Temático Valorização do Território 2007-2013
RO	2007RO161PO002	Sectoral Operational Programme Increase of Economic Competitiveness
RO	2007RO161PO001	Regional Operational Programme
RO	2007RO161PO003	Sectoral Operational Programme Transport
RO	2007RO161PO004	Sectoral Operational Programme Environment
SK	2007SK161PO004	OP Transport

Tools for collecting data from the MAs: guidelines, template and accompanying information

The national experts collected data following a set of guidelines (annexed to the Inception Report). Moreover, they were asked to use a common Excel template designed in a way that allowed verifying the information and feeding the Database in the most straightforward way, minimising 'transaction costs'. Therefore, the template structure was simple and in line with the final structure of Database to be submitted to the EC.

The guidelines for national experts included:

- a glossary with definitions: allocations to selected projects, expenditures, NUTS definition, EU contribution, major projects;

- the procedures to be used for contacting the MAs and collecting the data;

- A series of annexes:

  o A template for collecting information from the MAs.

- Available EC data on allocations to selected projects in 2013 by programme (and Thematic Objective)

- List of NUTS 2006

- List of 86 priorities

- Results of WP0 on availability of data

- List of relevant contacts in the MAs

The core team has carried out an initial analysis of existing EC data (SFC data on 2013 allocations to projects selected) and has identified the existing gaps. The data collection template and the guidelines for the national experts have been prepared following this analysis and sent to the Commission for comments.

Moreover, tests were carried out in Italy and Austria. The revised guidelines, following the Commission approval and the tests, have been then circulated among the national experts.

The national experts used these tools to collect and transfer data to the core team. In doing so, they liaised directly with the MAs. The experts identified, in most cases, the gaps which need to be covered by Task 2.

The preliminary analysis of existing EC data was also done to understand whether it was possible to maintain the internal subdivision of data by form of finance and territory type. The inclusion of these variables in the Database was not required in the tender documents, however, in the Kick-off meeting the team was asked to assess the possibility to consider them in the data collection. The analysis concluded that these codes ("Territory Cd", "Finance Cd", "Economic Cd") provide information which could be marred, and in many cases is, by some mistakes which reduce the reliability and the usability of the data for future exercises. Furthermore, these data would not be useful for the following steps of the project (e.g. estimation, consolidation) while they would have required a substantially higher amount of work which could have jeopardized the entire process, for which there is little time available. The final decision to exclude these additional variables was taken in agreement with the Commission (the note sent to the Commission was annexed to the Inception Report).

3. THE DATA COLLECTION PROCESS: TIMING, QUALITY CHECKS, OUTCOMES BY COUNTRY

3.1. The Data Collection Process

The data collection (Task 1) started in Italy and Austria at the end of January 2015, after the kick-off meeting with a set of tests aimed at identifying open issues and developing guidelines as well as accompanying tools (templates etc.).

Across Europe, the data collection was officially launched on the 19th of February 2015 when the guidelines and related annexes were circulated among national experts[12].

The only exceptions to this were the Croatian experts, who were subcontracted at the end of March and started collecting data on the 7th of April.

3.2. Quality Checks

The core team organised the data collection process in order to guarantee a constant and meticulous supervision on the work performed by the experts. This aspect of the collection management was considered of the utmost importance assuming that (1) data collection in some countries would have been time consuming and challenging and (2) the experts would have required assistance in aggregating or breaking down data not readily available at the desired level of detail.

In this regard, the core team scheduled three quality checks:

The **first quality check** (15 March 2015) was meant to verify whether the interaction with the MAs ran smoothly and, in case of issues, to report them to the European Commission, and to carry out a first assessment of the data collection progress and coverage of the programmes in each country. Each expert submitted a short summary of the situation in their Member State.
At this stage, apart from a few countries (i.e. ES, IT, NL and the Baltic countries) all the experts received few or incomplete data. This was largely due to the MA response time and, in some cases, to the difficulty in getting in touch with those responsible for the monitoring process at national or regional level. At this stage, data on around 60 OPs were received by the experts, although in some cases in a format requiring adjustments and elaboration (for example at project level).

The **second quality check** (30 March 2015) was aimed at carrying out a more thorough control of the data collected by the experts who, at that point, were expected to deliver the first, though partial, datasets.

Taking into account the feedback received, the core team drafted a list of problematic programmes which needed to be signalled to the European Commission. This was done on the 3rd of April (see list annexed to the First Interim Report).

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[12] The guidelines and other annexes are included in the Inception report, submitted on 19 February and revised following the Steering Group Meeting and the comments from European Commission.

At this stage there was a significant progress, compared to the first quality check. However, only the three Baltic countries (EE, LT and LV) delivered a complete (and final) dataset. Remarkable progress was made by CZ, BE, PT and SK while some country experts received incomplete data and could not therefore deliver the final dataset (e.g. HU; PL; SE). At this stage, data on approx. 130 OPs were collected.

The **final quality check** (15 April 2015) was the deadline for submitting the country datasets. At this stage, data on roughly half of the countries were received. The problems encountered can be grouped into two main categories:

1) Unresponsiveness of MAs and lack of reporting routines in the monitoring systems of several MAs (i.e. DE, UK, FR, BG)

2) Complexity of the calculations to be made in order to distribute data at NUTS3 level, which varied on the basis of the number of programmes and the quality of data received from the experts (i.e. ES, PL, GR, RO).

In relation to the first issue, as previously mentioned, 18 programmes were signalled to the European Commission.

After the third quality check and before the submission of the First Interim report, the team managed to assemble data on 257 programmes, which were included in the first Database version.

After the submission of the First Interim report data on additional 46 OPs were collected. In most cases, the delay was due to MAs slowness in delivery data (i.e. DE, FR, UK) or to the time spending effort that the expert had to make to reorganise and/or calculate data (i.e. RO, FR, SE, FI).

As already highlighted in the introduction, a number of MAs (12) were unable or unwilling to deliver data at the required level of detail. In these cases, we suggested the experts to collect the cumulative total amounts per year of each missing variable, distributed by priority where possible. Apart from the 1 OP still missing, the MAs delivered the totals requested. The totals, included in the database, have been used as a basis for estimation in Task 3.

Apart from a thorough cross-check of the received data, in all cases the core team had to adjust the format and unify allocations and expenditure as well as 2013 and 2014 data in a single spreadsheet, given that these were submitted on separate sheets. Despite its complexity, this process allowed the Core team to verify in depth each country dataset.

3.3.   Interaction and Communication with the National Experts

The core team guaranteed a constant and prompt support to all the national experts throughout the different steps of the collection process. We kept daily contact via email or phone, according to the queries raised by the experts and the urgency of the issues to be discussed. On a general note, the interaction with the experts covered mainly the following areas:

- Clarifying definitions (e.g. Allocations to selected projects, Expenditure according to art.78 of the EU Reg. 1088/2006 etc.);

- Clarifying aspects not well understood by the national experts (for example the necessity to collect cumulative instead of yearly data);
- Suggesting and checking methodologies of data distribution (e.g. distribution per population, project location etc.);
- Providing support in chasing unresponsive MAs.

Frequency and type of support required varied accordingly to the workload of the expert and the willingness to cooperate of the MAs. As mentioned, one of the most frequent issues was coping with the different definitions used at national level concerning the data required. Although the core team always asked the experts to make reference to the definitions used at EU level, in some cases the latter caused confusion among the national monitoring officers and the experts as well. As a consequence, the wide array of national terminologies and definitions has sometimes slowed down the collection process. However, the core team has generally coped well with this issue, succeeding in establishing a common interpretative framework between the expert and the MAs in all cases.

Another frequent point of discussion concerned the choice of which methodology to follow in breaking down data, where possible. The core team supported the experts in selecting the best option case by case.

In two cases, Mecklenburg-Vorpommern (2007DE161PO003) and Bremen (2007DE162PO006), not all the required information was delivered by the MAs. The core team decided to adopt the following approach: in relation to Mecklenburg, only 2014 expenditures were missing and these were estimated on the basis of 2013 expenditures by applying a 2013-2014 average country growth rate; in the second case, 2014 allocations and expenditures were both missing. To avoid having a gap in the series, the 2013 figures were used for 2014[13]. These cases are flagged in the database.

One French programme (OP Rhone 2007FR162PO026) is missing from the initial list of OPs agreed with the Commission, since the MA did not provide data in time for the estimation, despite the efforts made by the national expert and the core team.

In some cases, even if the Euro is not the national currency, the MAs were able to provide the data in EUR amounts. In other cases, data were available only in local currency and needed to be converted. The following table shows how these cases were managed by the core team.

During the Second Steering Group meeting, it was pointed out that using a simple average exchange rate could be inappropriate considering the exchange fluctuations which can be significant in some cases (e.g. Poland and Romania).

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[13] Concerning OP Bremen, which is a small programme, the core team decided that it was not appropriate to estimate 2014 allocations on the basis of 2013 figures and average growth rates, given that allocations include overbooking and the amounts can decrease from one year to the next, as it is actually the case of several OPs.

Table 4: Applied exchange rates

Country – Currency	Notes	Exchange Rate used (average 2007-2013)
BG – BNG	Data was provided in EUR by the MAs	---
CZ – CZK	2007-2013 average exchange rate applied by the Core team on all OPs	CZK to EUR=0.03894
DK – DKK	Data was provided in EUR by the MAs	---
HR – HRK	Data was partially provided in EUR and in HRK. The Core team applied the 2007-2013 average exchange rate on the quotas in HRK	HRK to EUR=0.1354
HU – HUF	2007-2013 average exchange rate applied by the Core team on all OPs	HUF to EUR=0.003656
PL – PLN	2007-2013 weighted average exchange rate applied by the Core team (see below) CB OPs were already provided to the Core team in EUR	PLN to EUR= 0.2428
RO – RON	Allocations are in RON (in four OPs), Expenditures in EUR. RON Leu has been converted by using a weighted average exchange rate (2007-2013)	RON to EUR= 0.2328
SE – SEK	2007-2013 average exchange rate applied by the National expert on all OPs	SEK to EUR=0.10702
UK – BP	Data was provided in EUR by the MAs	---

Note: The exchange rate source is the European Central Bank

To understand the error caused by using a simple average and, therefore, whether this approach is acceptable, we carried out a test on the Polish expenditure data and compared the EUR amounts obtained by using a simple mean with those obtained by applying a weighted average, where weights are given by the annual distribution of EC payments.

The steps undertaken in this exercise are shown in the table below. By applying a 2007-2013 change rate (simple average of the period), we obtained 45.7 EUR billion of cumulative expenditures in Poland, at the end of 2014.

Alternatively, by considering the distribution of EC payments (data from WP1) and using the yearly exchange rate from 2007 to 2013 we calculated the yearly expenditures in Euro, obtaining a total of 44,3 EUR billion in the period 2007-2014. Therefore, the results of the test highlight that the application of the different methods lead to a difference in expenditure of about 3% of the total (see the table).

This method was used to convert data in Euro in the Polish case as well as in the Romanian case. Four Romanian OPs, with allocations in Lei (2007RO161PO001, 2007RO161PO002, 2007RO161PO003, 2007RO161PO004)[14] were converted using a weighted average.

However, it is worth noting that the use of a weighted average is constrained by several limits. First of all, the choice of appropriate weights is somewhat arbitrary. Using the time distribution of EC payments as weights (as it was done) is a straightforward solution. However, this method has some limits, since the annual distribution of payments is available while the distribution of the allocations to selected projects is not and, moreover, these distributions are different.

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[14] A weighted average exchange rate of 0.2328 was used and applied as in the PL example.

Table 5: Example of conversion of expenditures in Poland from national currency to EUR

	Expenditure	Exchange rate PLN/EUR	Distribution of EC payments by year
2014 Cumulative Expenditure (PLN – Polish Zloty)	182,583		
2014 Cumulative expenditures (EUR, average exchange rate)	**45,719**	**0.2504**	
2007 Expenditure (EUR)	1,200	0.2644	2.5
2008 Expenditure (EUR)	2,043	0.2857	3.9
2009 Expenditure (EUR)	3,669	0.2315	8.7
2010 Expenditure (EUR)	5,541	0.2504	12.1
2011 Expenditure (EUR)	7,122	0.2433	16.0
2012 Expenditure (EUR)	7,590	0.2391	17.4
2013 Expenditure (EUR)	8,032	0.2383	18.5
2014 Expenditure (EUR)	9,128	0.2390	20.9
2014 Cumulative Expenditures 2014 (EUR, weighted average exchange rate)	**44,325**	**0.2428**	
% Difference: simple vs. weighted average	3.0%		

Source: WP13 and Inforegio data (WP1, financial data)

4. THE ASSEMBLED DATABASE, BEFORE THE ECONOMETRIC ESTIMATION: FEATURES AND QUALITY CONTROLS

4.1. Main features of the Database (before estimation)

The Excel Database, which includes amounts and information obtained from the MAs by the national experts, is the main output of Task 1. It is annexed to the present report (DB_WP13_july_BE) and covers 303 OPs.

The Database contains information on allocations and expenditures broken down by NUTS 3 regions and by the 86 priority themes.

The Database allows searching and aggregating data according to country, programme, fund, objective and priority code. It is in line with the template used by national experts but it obviously contains data for all countries. Information on 2013 and 2014 are on the same sheet, which allows selecting the year of interest. The use of filters ensures an easy sorting and selection of data.

The Database also includes information on sources and notes at the programme level. These were verified in collaboration with national experts.
Sources have been codified as follows:

- MAM → data from the MA Monitoring system.

- NSD → National/Central Monitoring System Data.

- ECD → existing European Commission Data (applicable only to 2013 Allocated to selected projects).

- MAM+EXC[15] → data from the MA monitoring system with additional experts' calculations in order to provide a NUTS 3 breakdown.

- NSD+EXC → data from the National monitoring system with experts' calculations aiming at producing a NUTS 3 breakdown.

- ECD+EXC → existing EC data with experts' calculations aiming at producing a NUTS 3 breakdown.

As regards the Notes, the following codes were used:

- POP → data breakdown on the basis of population

- LOC → data breakdown on the basis of location

- OUT → data breakdown based on output indicators

- OTH → other breakdown methodologies based on the distribution of totals (e.g. Large projects in the Netherlands broken down on the basis of the total geographical distribution of resources; expenditure in some Swedish and

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[15] The suffix EXC (Expert Calculation) appears in combination with the codes MAM, NSD and ECD when the original data was available at a lower level or detail (e.g. NUTS 0, NUTS 1 and NUTS 2) and was disaggregated by the expert (e.g. on the basis of population or location).

Hungarian programmes broken down on the basis of the distribution of allocations to selected projects)

Whenever the experts used multiple distribution methods on a single programme, a combination of codes has been used. For instance:

- LOC+POP (data first distributed by location and then broken down by population)

- OUT+LOC (data distributed by output indicators and location)

4.2.   Further information on share of data breakdown

Additional expert calculations were performed in 122 operational programmes, out of the 303 covered in the database, on the basis of the data obtained from the MA, the Central Monitoring system or the EC.

In order to maximise the transparency of the database, the team computed, in cooperation with national experts, the share of resources of these 122 OP[16] which were subject to additional calculations in order to produce a NUTS 3 breakdown (e.g. distribution by location or population). This share was calculated for each amount included in the database: 2013 and 2014 allocations to selected projects, 2013 and 2014 expenditure.

The results of this exercise are shown in the following table. The situation varies considerably across countries, years and variables (i.e. allocations and expenditure). However, the average share of resources which were recalculated is relatively modest, ranging between 9 and 10% of the total. This means that the largest share of financial data were directly provided at NUTS 3 level of detail or higher by the MA, without need for calculations. Higher level of detail means that data was made available either at the level of Local Administrative Units (LAU, former NUTS4 and NUTS5 levels) or at project level with a postal code which could be associated to a single NUTS3.

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[16] The list of these OPs is annexed to the report.

Table 6: Share of resources calculated by experts to provide a NUTS 3 breakdown

Country	OPs with calculations	Other OPs	% of calculation on total collected				Notes
			2013 allocations	2013 expend.	2014 allocations	2014 expend.	
FI	5	0	100.0	100.0	100.0	100.0	POP and LOC. OP Åland data received at NUTS3
NL	4	0	64.2	58.9	63.9	59.1	Mainly OTH. LOC on one OP only
FR	21	9	50.1	49.0	50.9	49.4	POP
RO	5	0	36.8	31.6	36.0	33.8	Mainly LOC. POP on one OP only
HU	13	0	22.1	23.8	21.8	21.2	POP and OTH
HR	1	2	18.2	28.6	11.5	21.8	LOC
BG	1	4	15.8	15.5	15.7	15.1	OUT
CB	12	43	14.9	18.5	14.6	18.2	Mainly POP, but also LOC and OUT
GR	10	0	14.4	18.0	14.8	18.5	POP
SK	6	3	14.4	11.0	9.5	7.7	POP
PL	20	0	6.6	6.6	7.3	6.3	POP
ES	15	8	0.2	0.3	0.2	0.3	LOC
PT	1	9	0.1	0.0	0.1	0.1	LOC
SE	8	0	0.0	100.0	0.0	100.0	OTH: expenditure of the national OPs calculated using the allocated share
AT	0	9	0.0	0.0	0.0	0.0	
BE	0	4	0.0	0.0	0.0	0.0	
CY	0	1	0.0	0.0	0.0	0.0	
CZ	0	14	0.0	0.0	0.0	0.0	
DE*	0	18	0.0	0.0	0.0	0.0	
DK	0	1	0.0	0.0	0.0	0.0	
EE	0	2	0.0	0.0	0.0	0.0	
IE	0	2	0.0	0.0	0.0	0.0	
IT	0	28	0.0	0.0	0.0	0.0	
LT	0	2	0.0	0.0	0.0	0.0	
LU	0	1	0.0	0.0	0.0	0.0	
LV	0	2	0.0	0.0	0.0	0.0	
MT	0	1	0.0	0.0	0.0	0.0	
SI	0	2	0.0	0.0	0.0	0.0	
UK	0	16	0.0	0.0	0.0	0.0	
Total	**122**	**181**	**10.1**	**9.1**	**9.7**	**9.0**	

* In the case of Germany, there is no OP with experts' recalculations. The missing Mecklenburg and Bremen data were estimated as explained in paragraph 3.3. In the final database (DB_WP13_NUTS3_AE), the source of these 2 OPs is "estimation".

Source: Core team and national experts' calculations – WP13 Database (BE)

4.3. Quality checks conducted on the Database

The Database contains 41,065 lines and 20 columns, 12 of these are variables and 8 are notes and sources. As previously mentioned, an additional column was included to identify the observations which need to be broken down econometrically[17].

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[17] In 331 rows (0.8% of the total number of database lines), the value of allocations and expenditures is zero. These 'zero values' were provided as such by the MAs and are likely to

A first analysis of data at NUTS 3 level

The main results of the data collection by the national experts, in comparison with the data on 2013 allocations received from the EC, are summarised in the following table as regards NUTS3 coverage. This table takes into account the revision of the NUTS codes which was carried out on the EC dataset.

Programmes with 100% of data at NUTS3 level are 182 compared to 63 in the initial dataset (SFC Data), while programmes with no NUTS3 detail are 25, compared to 169 in the EC data received.

96 OPs are available with at least some NUTS3 detail compared to 72 in the existing EC.

Table 7: NUTS3 coverage of the WP13 Database vs. available 2013 data on allocations to selected projects (no. of OPs)

	Existing EC data	WP13 data First Interim Report*	WP13 data Final Report**
100% data at NUTS 3 level	63	172	182
Some data at NUTS 3 level	72	77	96
No data at NUTS 3 level	169	8	25
Missing OPs	**---**	**47**	**1**
TOTAL	**304**	**304**	**304**

*= 47 OPs missing (Database as of 20 May 2015), **= 1 OP missing (Database as of 24 July 2015)

Source: WP13 Database (BE)

Before the econometric estimation, around 93% of the 2013 allocations to selected projects are available at NUTS 3 level, and a similar result is obtained considering the expenditures and the allocations in 2014.

Table 8: Distribution of allocations to projects and expenditure by NUTS level, before the estimation (Task 1)

NUTS Level	Allocated 2013	Expenditures 2013	Allocated 2014	Expenditures 2014
0	1.4%	2.4%	2.3%	2.5%
1	1.3%	1.3%	1.2%	1.2%
2	4.2%	4.7%	4.0%	4.5%
3	93.1%	91.6%	92.5%	91.9%
Total (EUR million)	**269,635**	**162,250**	**303,849**	**205,678**

Source: WP13 Database (BE)

represent cases in which resources were initially planned but then were not actually allocated to projects.

The large majority of data did not involve any breakdown or estimation, as illustrated in the next figures, considering that 9-10% of amounts were calculated by the national experts and more than 83% of the data, in all years, were directly obtained at NUTS 3 level or resulted from aggregation of data provided at higher level of detail (e.g. project level or LAU).

The remaining 7-8% of the total amounts is estimated through econometric methods (see the next chapter).

Figure 1: Distribution of total financial resources: data collected at NUTS3 vs. calculation/estimation (%)
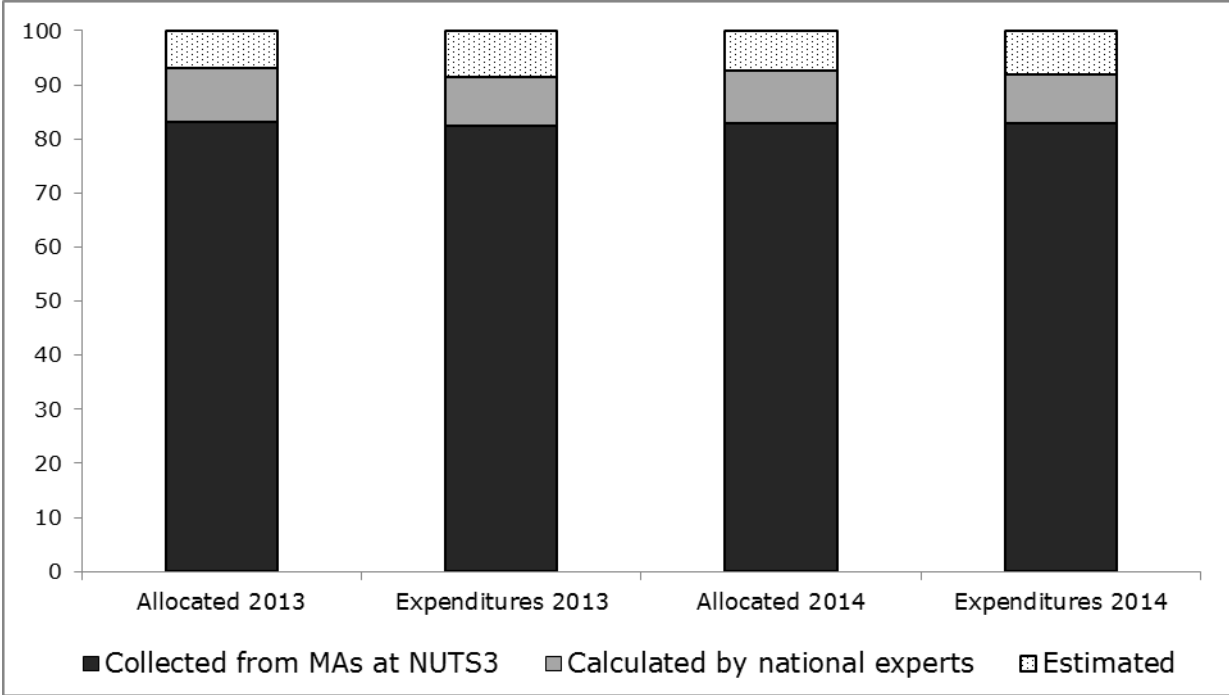
Note: Task 1= data collection from MAs; Task 3= estimation.

Source: WP13 Database (BE)

The situation across countries is varied, as shown in the figure below. As far as the covered OPs are concerned, 100% of data is available at NUTS3 level of detail for 11 countries. These are: Czech Republic, Denmark, Malta, Finland, Hungary, Lithuania, Poland, Sweden, Slovakia, Cyprus and Luxembourg. In 8 countries, the share of data available at NUTS 3 level is more the 90% (NL, RO, ES, FR, GR, HR, AT, LV); all together these 20 countries account for 73% of total allocations in the EU.

The remaining countries are characterised by a certain share of data available only at NUTS2 or at a lower level of detail. In 5 cases, UK, Belgium, Bulgaria, Germany and Estonia, the share of data at a level of detail lower than NUTS3 is above 20% of the total. In IE, which was not included in the previous version of the database, all data are at NUTS 2 level and this is the only case whose situation did not improved compared to existing EC data on 2013 allocations. As expected, the CBC objective shows a low percentage of resources at NUTS 3 level.

Table 9: Level of detail across countries: distribution of 2013 allocated to projects by NUTS level – before econometric estimation

Country	NUTS 0 %	NUTS 1 %	NUTS 2 %	NUTS 3 %	EUR Million
CY	0.0	0.0	0.0	100.0	503
CZ	0.0	0.0	0.0	100.0	19,129
DK	0.0	0.0	0.0	100.0	250
FI	0.0	0.0	0.0	100.0	998
HU	0.0	0.0	0.0	100.0	24,996
LT	0.0	0.0	0.0	100.0	5,556
LU	0.0	0.0	0.0	100.0	24
MT	0.0	0.0	0.0	100.0	708
PL	0.0	0.0	0.0	100.0	57,138
SE	0.0	0.0	0.0	100.0	925
SK	0.0	0.0	0.0	100.0	9,487
NL	0.0	0.1	0.0	99.9	866
RO	0.6	0.0	0.3	99.1	16,010
ES	0.0	0.0	2.1	97.9	20,256
FR	0.2	0.0	4.0	95.8	7,183
GR	0.4	0.0	4.9	94.7	24,907
HR	0.0	8.6	0.0	91.4	377
AT	0.0	0.0	8.9	91.1	576
LV	0.0	0.0	9.1	90.9	3,894
PT	0.7	7.8	2.1	89.4	15,760
IT	5.5	0.0	10.0	84.5	21,190
SI	0.0	19.1	0.0	80.9	2,641
BG	18.6	0.1	1.7	79.6	6,313
DE	0.1	3.6	20.7	75.7	15,129
EE	0.0	0.0	25.1	74.9	2,836
CB	21.2	0.9	4.5	73.4	5,286
UK	0.1	16.7	29.5	53.6	5,290
BE	0.0	18.3	32.8	48.8	997
IE	0.0	0.0	100.0	0.0	414
TOTAL	**1.4**	**1.3**	**4.2**	**93.1**	**269,635**

Country ordered according to the % of data available at NUTS3 level
Source: WP13 Database (BE)

Compared to the SFC data (see Table 1) the WP13 data collection allowed improvements in the majority of the countries, in terms of share of financial resources allocated, with the exception of Cyprus, Luxembourg and Malta where the share of financial resources are unvaried (100% at NUTS 3 level), and Ireland (0% at NUTS 3 level).

Considering 2014 allocations and 2013-2014 expenditures the situation does not change in terms of % data at NUTS 3 level, with some exceptions: the % of data at NUTS 3 level improves in Belgium in 2014 compared to 2013, Ireland shows a % of expenditures at NUTS 3 level around 80%, compared to 0% in terms of allocated, Malta has not data available at NUTS 3 level in terms of 2014 allocations. Finally CBC programmes are characterised by a higher percentage of expenditures at NUTS 3 level than allocations, in both 2013 and 2014.

Table 10: % of financial amounts at NUTS 3 level, by country (2013/2014 allocations and expenditures)

Country	Allocated 2013	Expenditures 2013	Allocated 2014	Expenditures 2014
CY	100	100	100	100
CZ	100	100	100	100
DK	100	100	100	100
FI	100	100	100	100
HU	100	100	100	100
LT	100	100	100	100
LU	100	100	100	100
MT	100	100	0	100
PL	100	100	100	100
SE	100	100	100	100
SK	100	100	100	100
NL	100	100	100	100
RO	99	99	98	99
ES	98	94	95	95
FR	96	94	94	93
GR	95	93	95	93
HR	91	85	92	87
AT	91	92	91	92
LV	91	87	91	88
PT	89	91	90	91
IT	85	79	85	82
SI	81	81	82	83
BG	80	80	82	83
DE	76	71	72	68
EE	75	73	75	74
CB	73	80	73	80
UK	54	38	53	39
BE	49	43	59	53
IE	0	86	0	88

Source: WP13 Database (BE)

Compared to the previous version of the database (see First Interim report), the share of resources available at NUTS 3 level in the Competitiveness objective decreased from 90% to 85%. This is due mainly to Irish programmes as well as some DE and UK OPs collected after submitting the first version of the database. There are no relevant differences among Convergence and Multi-objective programmes: both of them present more than 90% allocated at NUTS 3 level. The same results are found if we consider 2013 expenditures and 2014 allocation and expenditures, although in the case of the expenditures the share of resources at NUTS 3 level improves in CB cooperation objective[18].

Table 11: Distribution of 2013 allocations to selected projects by NUTS level and Cohesion Policy objective

NUTS Level	Conv.	Comp.	Coop.	Multi Obj.	Total
0	1.2	0.0	21.2	0.8	1.4
1	0.8	5.4	0.9	0.4	1.3
2	3.7	9.5	4.5	1.7	4.2
3	94.3	85.1	73.4	97.1	93.1
Total (EUR million)	**221,025**	**27,578**	**5,286**	**15,746**	**269,635**

Source: WP13 Database (BE)

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[18] See the Annexed Excel Database (BE).

In relation to groups of countries, the EU13 shows a higher share of 2013 allocations at NUTS 3 level than the EU15 (98% vs. 89%), confirming what was found in the First Interim report (see the following figure).

Figure 2: Distribution of 2013 allocated to projects by NUTS level and by group of countries (EU15, EU13, CB cooperation)
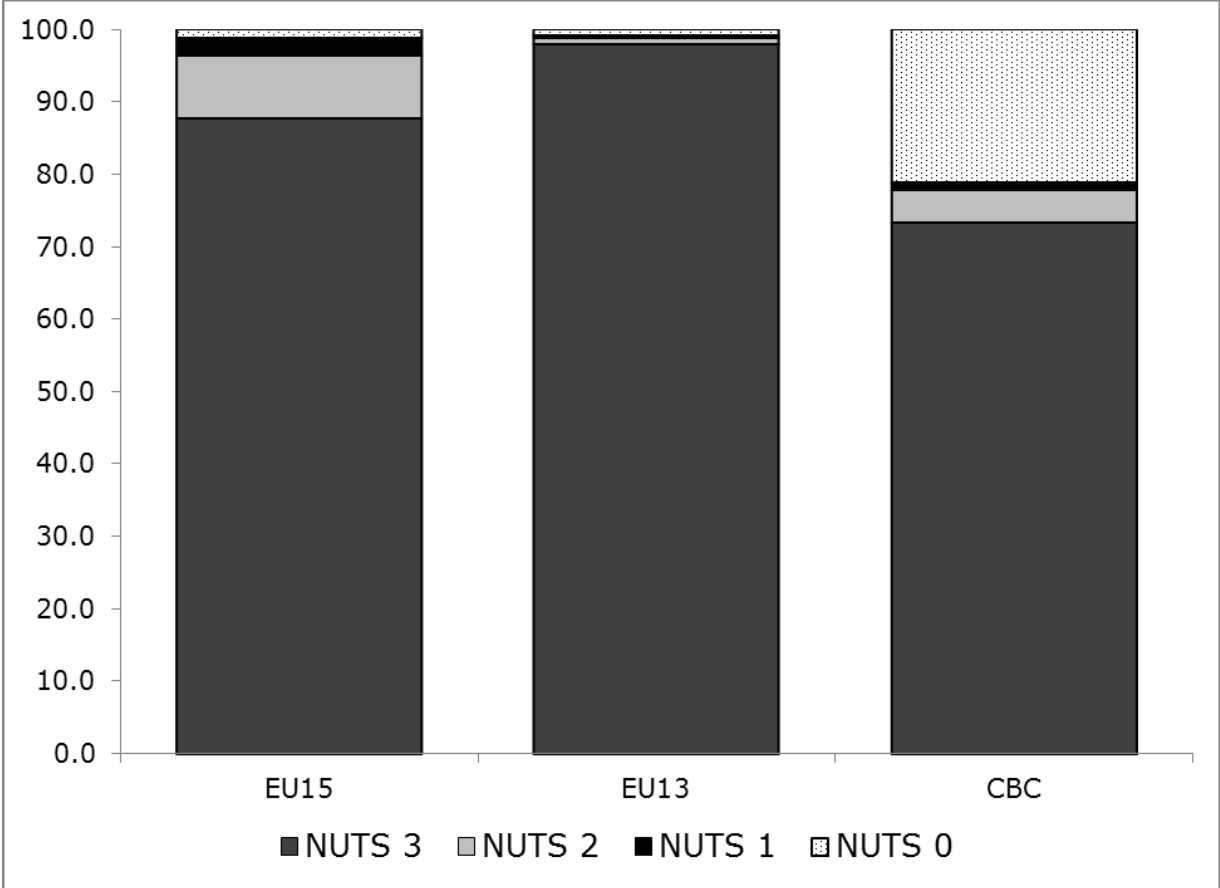
Source: WP13 Database (BE)

A comparison with the 2013 allocations to selected projects provided by the EC (SFC data)

A comparison between the resources allocated to selected projects at the end of 2013, as registered in the SFC system, and the allocations collected within the WP13 was carried out. We do not expect that the two amounts are the same in all programmes because of changes in projects which may affect what is recorded in the monitoring systems (for example cancellations) after the MAs sent the data to the EC (SFC system). In some other cases differences can be due to the exchange rate adopted.

The following graph provides a comparison between SFC and WP13 data for 2013 allocations to projects selected, for the 303 OPs covered by the Database.

122 programmes, 40% of the total, show an exact coincidence between SFC and WP13 in the total amount of allocated resources (% differences lower than +/- 0.00%).

152 programmes, 50% of the total, are characterised by a difference, between SFC and WP13 data, lower than 15% of the SFC amount.

Figure 3: Comparison between allocations to selected projects: SFC data vs. WP13 (2013, EUR million) – each blue dot corresponds to a programme
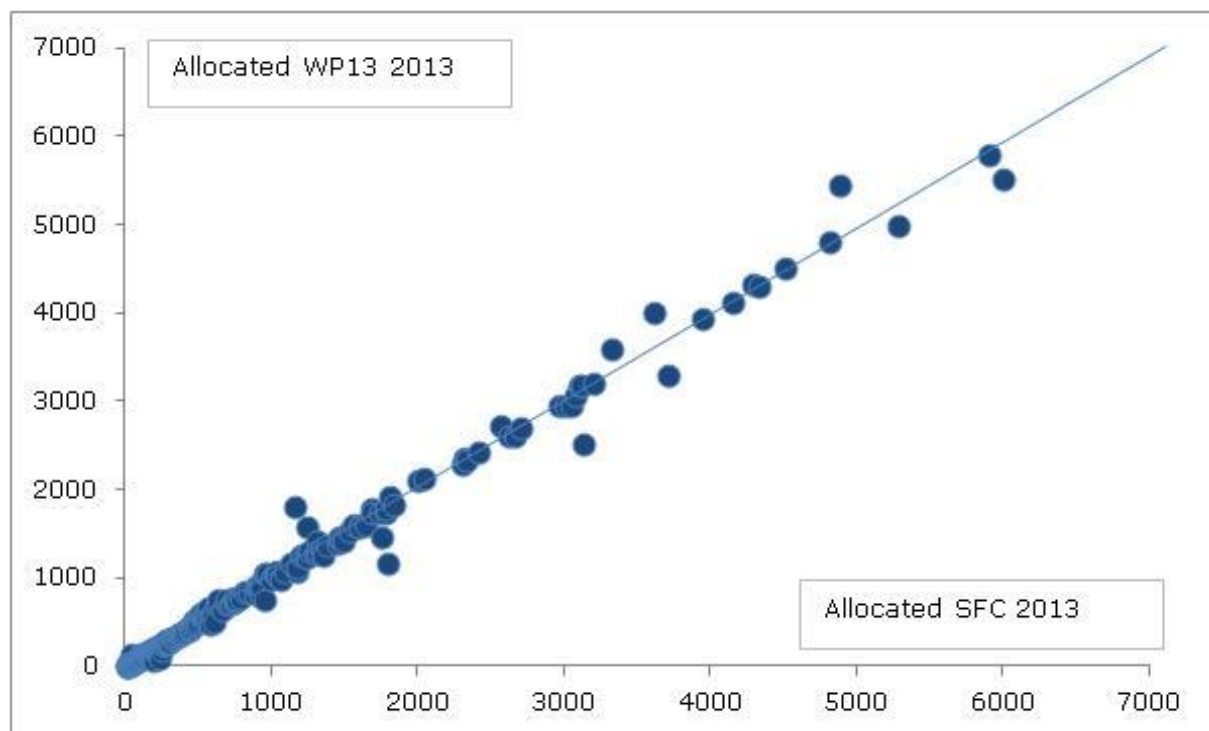
Note: a Hungarian OP and two Polish OPs are not included because too large in terms of financial amount; they are characterised by a difference with SCF data which is lower than 15%

Source: WP13 Database (BE) and SFC data

Finally, for 29 programmes[19] there are differences, between data provided by the EC and those collected, which are more than 15% higher (or lower) compared to SFC[20]. The double checks carried out by the national experts on the OPs characterised by considerable differences with existing SFC data confirmed the validity of the amounts collected or allowed to carry out small adjustments, without changing the overall picture.

A detailed spreadsheet on these differences ("Checking_Programmes") is included in the Database before estimation (DB_WP13_july_BE).

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[19] 8 CB, 4 CZ, 2 DE, 3 FR, 2 HR, 2 IT, 1 PL, 2 SI, 1 SK, 2 ES, 1 UK, 1 CY.
[20] Some relevant differences between SFC and WP13 data affect Croatia and Slovenia (more than 10% of differences). The Croatian expert checked the figure with the MA who confirmed that the SFC data were not correct. Therefore we incorporated the newly obtained figures in the Database.

A comparison between expenditures and allocations as well as between 2013 and 2014 expenditures

Expenditures are expected to be lower than allocations, at least at programme level. Overall the data provided by the MAs (and/or re-calculated by the national experts) are reliable. However, there are some cases which deserve a specific mention.

Ten programmes in the Database show a higher value of expenditures than allocation (3 CB OPs, 6 Spanish OPs, and 1 Maltese OP). This issue affects significantly the data of two Spanish programmes, especially the "Programa Operativo Fondo de Cohesión-FEDER" (2007ES161PO009). In these cases, the negative difference between expenditure and allocation is due to the Spanish accounting system. The explanation provided by the MAs was that, while expenditure is invariable once it takes place, allocations are subject to revisions, for example when the financial plan of a project is modified.

When this happened in a certain year, the cumulative data up to that year may show a positive expenditure but no commitment because the entire (revised) allocation to the selected project(s) is shifted to the next year when the new operation is approved.

Due to the features of the accounting systems, there are cases of priorities and/or NUTS codes, in specific OPs, characterised by expenditures larger than allocations, even if the total OP expenditures are lower than total allocations, as we would expect. In 2013 this happens for around 6% of the total lines of the database (BE) and, in 2014, for around 5% of the lines.

The other problems which were highlighted when the previous version of the Database was delivered in May were solved following the double check carried out[21]. In the final version of the Database (BE) all the programmes have 2014 expenditures higher than 2013 expenditures, as expected.

Priority themes: SFC and WP13 data

In terms of priority codes, the distribution of the data collected under the WP13 is very similar to the distribution of the SFC data provided by the Commission.

As showed in the following figure, the differences between SFC and WP13 data are minor across priorities: always less than 0.5% of total allocations.

The highest differences are the following: priority theme 21 (Motorways (TEN-T)), 45 (Management and distribution of water (drinking water)), 46 (Water treatment (waste water)), 86 (Evaluation and studies; information and communication). Two of these priorities, 21 and 46, account for 15% of total allocations. There are no relevant differences within countries (see table in the annex).

A few MAs claimed that it was not possible for them to provide allocations and expenditure by priority code. Overall, it was not possible to distribute by priority theme 26 EUR million of 2013 allocations to selected projects (0.01% of the total), 3,179 EUR million of 2013 expenditures (1.9% of the total), 1,902 EUR million of 2014 allocation

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[21] A case of 2014 expenditure lower than 2013 expenditure (2007NL162PO004) and a case where 2013 expenditure was too low compared to allocations (2007UK162PO002).

(0.6% of the total) and 4,158 EUR million of 2014 expenditures (2.0% of the total). Therefore, the share of resources for which there is no priority detail is relatively low and the issue has been dealt with in the estimation task.

Figure 4: Differences in the relative weight of priorities themes: WP13 vs. SFC data
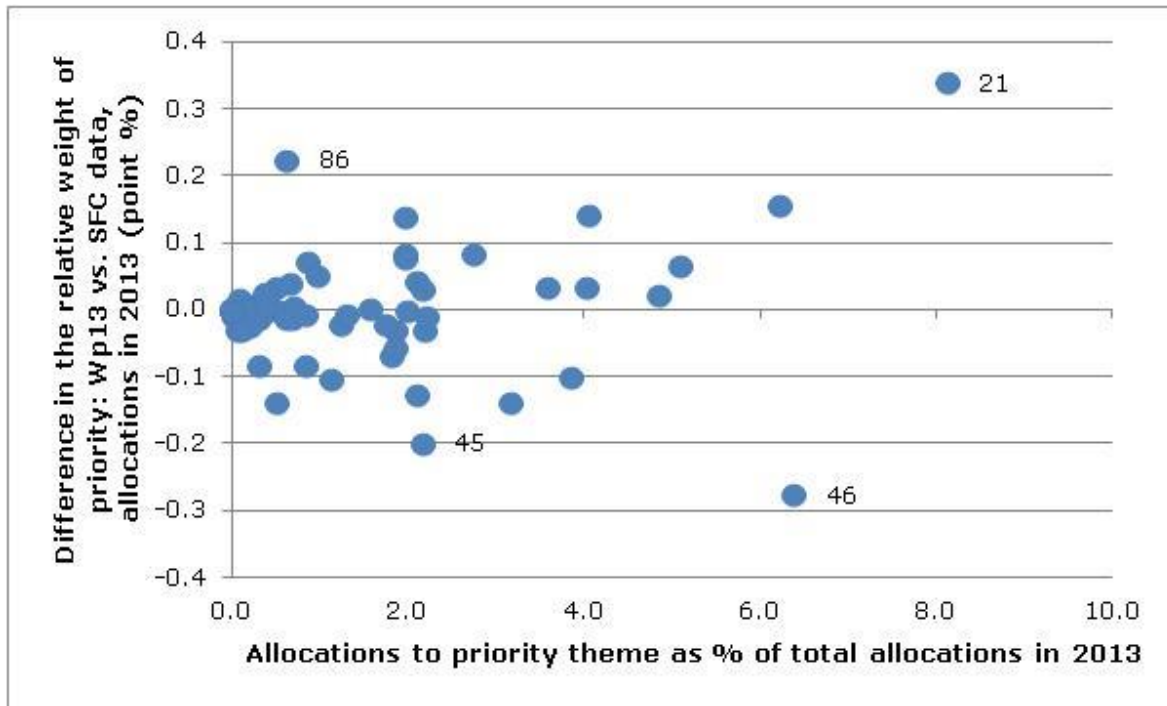
Source: WP13 Database (BE) and SFC data

Priority themes: their availability at NUTS 3 level

There is no priority theme which is characterised by less than 50% of 2013 allocations to selected projects available at NUTS 3 level. Only one theme, the priority 32 (Inland waterways -TEN-T), has less than 60% available at NUTS 3[22].

For the majority of priority themes (54 out of 86), more than 90% of allocations to selected projects are available at NUTS 3 level of detail. For the remaining priorities, less than 90% of the total allocations in 2013 is available at NUTS3 level. For priority 32, 51% is available at NUTS3), for priorities 64-65 about 64% is available), for 7 priorities the available share ranges between 70% and 80% and, for other 21 priorities it ranges between 80% and 90%. These priorities account for 18% of total allocations in the EU.

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[22] Considering data on 2013 allocations.

Figure 5: Share of 2013 allocations at NUTS 3 level by priority (%) and weight of priorities in terms of allocations at the end of 2013 – each dot represents a priority theme
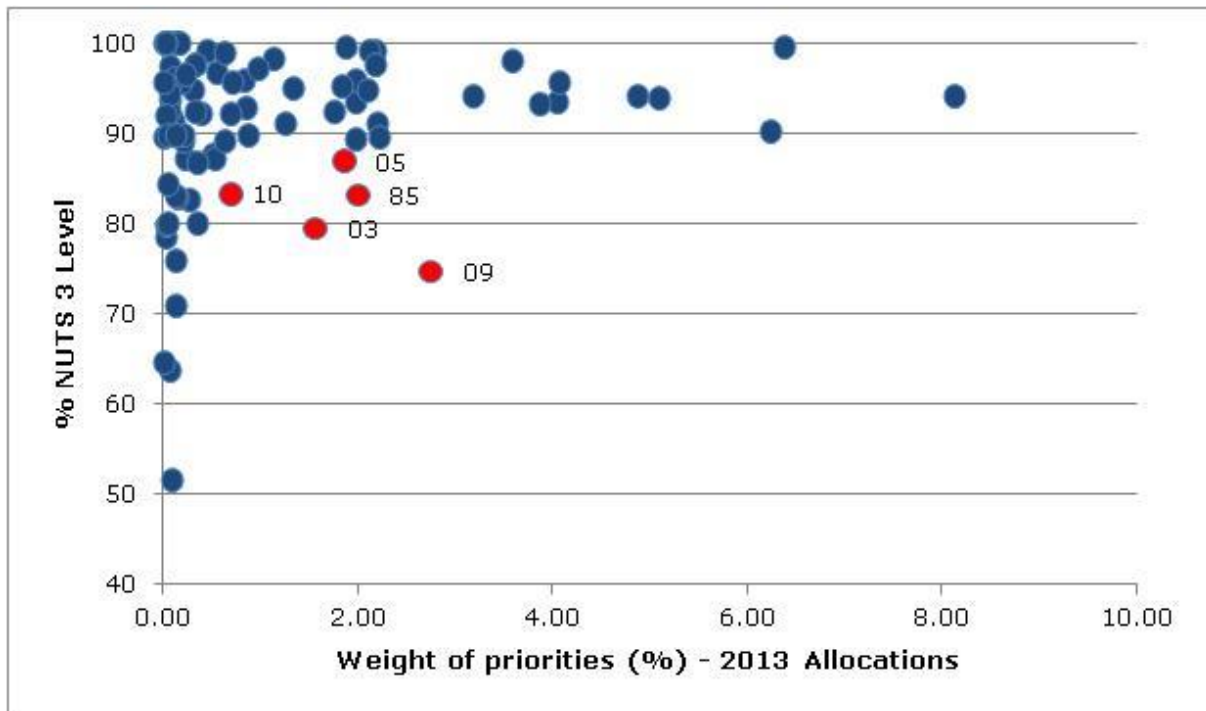
Source: WP13 Database (BE)

The red dots in the above graph indicate priority themes for which more than 10% of the total is not available at NUTS 3 level and with a relatively significant weight in the total allocation. These themes account for 9% of the total amount allocated and are: 03 (Technology transfer and improvement of cooperation networks between SMEs), 05 (Advanced support services for firms and groups of firms), 09 (Other measures to stimulate research and innovation and entrepreneurship in SMEs), 10 (Telephone infrastructures - including broadband networks), 85 (Technical assistance). These results largely confirm those pointed out in the First Interim report.

The same results are found if the calculations are repeated considering the 2014 allocations and the expenditures.

Coherence of NUTS definitions

The datasets received from the experts included 1,483 different NUTS Codes, 14 at level-0[23], 25 at level-1, 128 at level-2 and 1,316 at level-3. In addition to the code "EU", 90 NUTS 3 codes did not correspond to the NUTS 2006 definitions. These represent 6% of all NUTS codes in the Database.

The most important error consisted of the use of the 2010 NUTS definitions instead of 2006 definitions; in these cases (48% of the total "mistakes") there was simply a change in the code name.

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[23] NUTS 0 codes appear in: BG, CZ, DE, ES, EU, FR, GR, IT, NL, PT, PL, SI, RO, UK.

Figure 6: Type of errors concerning NUTS in the datasets received
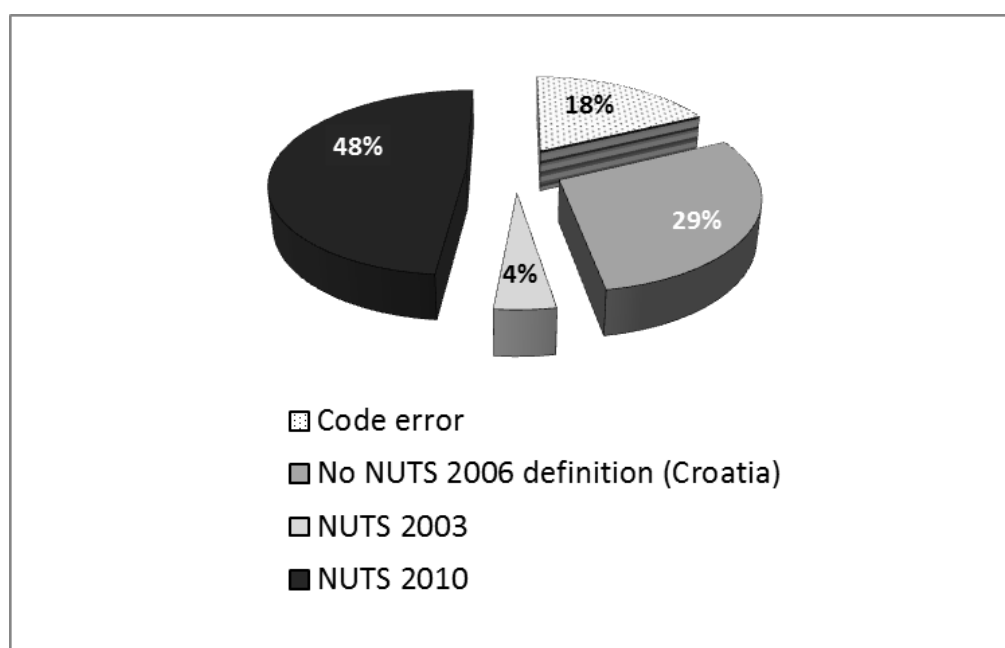
Source: WP13 Database

29% of the cases which were characterised by a discrepancy are related to Croatia for which the 2006 NUTS definitions did not exist.

In 18% of mistaken NUTS, the codes did not have any correspondence to the other NUTS definitions (2003, 2010 and 2013); therefore, we believe that these errors (typos/spelling) were made when the data was entered.

There are also cases, though less frequent (4%), where the indicated NUTS codes needed to be split into more NUTS. This is the case of regions where, before 2006, more areas were aggregated together (for example, BE333, included in the data sent by the expert, is a NUTS 2003, which in 2006 was split in BE335 and BE336).

All these errors were corrected as in the excel sheet "Checking NUTS" which shows the actions taken and the final changes made in NUTS codes (all changes are included in the final version of database).

Furthermore, other adjustments were done in order to harmonise NUTS codes and levels. A first adjustment concerned the cases where NUTS 3 regions were coded as NUTS 1 or NUTS 2 (e.g. PT2 is identical to PT200, PT15 is identical to PT150); these were all unified. A second adjustment concerned the repetition of the same NUTS and priority in two different lines (within a same programme), as in the following example:

Priority	NUTS	Allocated 2013	Expenditures 2013
45	XXX2	10	
45	XXX2		6

All these cases were merged as illustrated below:

Priority	NUTS	Allocated 2013	Expenditures 2013
45	XXX2	10	6

5.   ESTIMATION METHODOLOGY

Despite the fact that over 90% of the data in the "raw" WP13 Database (BE) are already allocated at the NUTS3 level, the remaining 10% are not and therefore needed to be estimated. Overall, the estimation process is split into two parts, depending on whether data refers to Convergence, Competitiveness and Multi-objective or CBC programmes.

The estimation methodology was tested and applied to a sample of three countries, i.e. Czech Republic, Italy and Portugal.

5.1.   *Estimation of Convergence, Competitiveness and Multi-objective data*

For the purpose of data analysis and estimation, the raw WP13 Database (BE) was transformed from Excel into a Stata file to make data manipulation and estimations easier. Once all estimations were completed the data have been transformed back to an Excel file.

Prior to any estimation, the raw WP13 Database (BE) was subject to a diagnostic procedure and consistency checks. Main checks have been performed on the consistency of the NUTS codification and the size of the allocations to selected projects or expenditures.

All consistency checks and estimations have been programmed in Stata. The current version of the Stata check and estimation program (excluding supplementary programs for data preparation) has 1,742 lines of program code. This is equivalent of 65 Word-pages.

As all estimations were calculated at the priority level, the raw WP13 data has been aggregated by priorities and NUTS codes, as occasionally two different OPs focus on the same priority in the same region. On the basis of this, a diagnostic test was run on the data to provide first information on the estimation requirements. For this test the shares of allocations by selected projects and expenditures are calculated for NUTS0, NUTS1, NUTS2 and NUTS3 regions, by countries and priorities. This is illustrated in Table 12, which provides an excerpt of the full diagnostic table for the Czech Republic, Italy and Portugal.

Table 12: Share of NUTS regions in allocations to selected projects by priorities, 2013 (%)

Country code	Priority Cd	NUTS 0	NUTS 1	NUTS 2	NUTS 3
CZ	14	0.0	0.0	0.0	100.0
IT	03	0.0	0.0	8.2	91.8
IT	01	7.8	0.0	8.6	83.6
PT	85	18.3	25.6	6.4	49.7

This test revealed different estimation requirements. In the case of Priority 14, in the Czech Republic, all allocations to selected projects were at NUTS3 level. This is the preferred case as no estimation is required. Regarding Priority 03 in Italy, allocation data

existed both at the NUTS2 and the NUTS3 level, so that in this case NUTS2 data needed to be allocated to the respective NUTS3 regions via estimation. In addition to that, Priority 01 in Italy also required NUTS0 to be allocated to the NUTS3 level. Priority 85 in Portugal illustrates the most complex case, as NUTS0, NUTS1 as well as NUTS2 data had to be broken down to NUTS3 via statistical methods.

Taking into account the comments received during the Second Interim Meeting on the estimation procedure presented in the First Interim Report, the final estimation procedure involved the following steps:

- Step 1: Breakdown of NUTS0 data to the NUTS2 level;

- Step 2: Breakdown of NUTS1 data to the NUTS2 level;

- Step 3: Breakdown of NUTS2 data to the NUTS3 level. That is, the NUTS2 data estimated in Step 1 and Step 2 as well as the original data at the NUTS2 level are broken down to the NUTS3 level.

Figure 7 shows a graphic illustration of the estimation steps.

Figure 7: Estimation steps
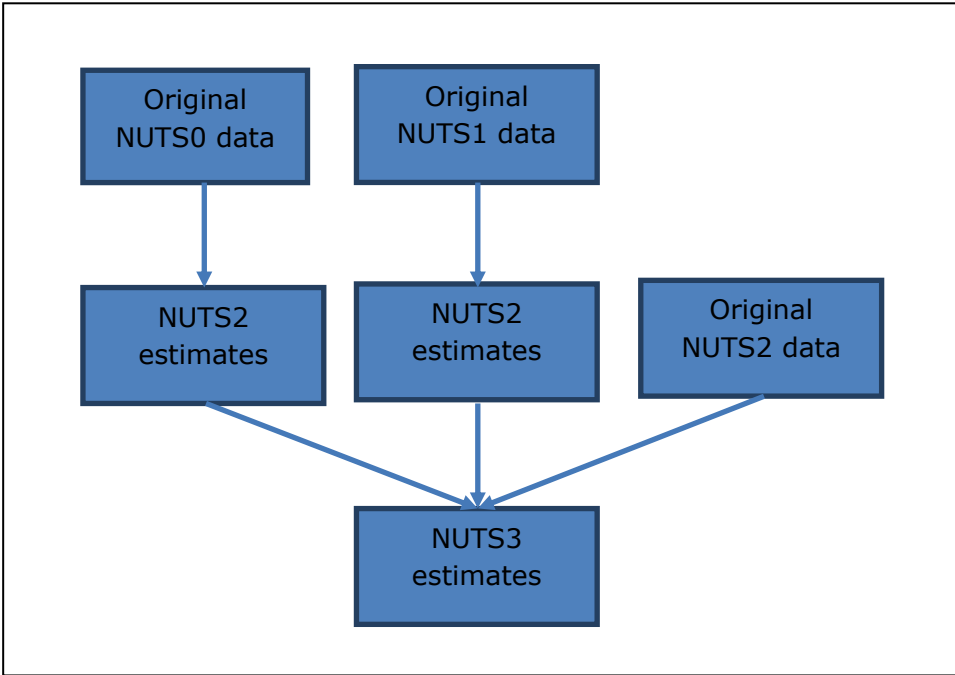
This estimation procedure ensures that firstly NUTS0 and NUTS1 data are consistently broken down to the NUTS2 level, which is in fact the main level of geographical aggregation in further analysis. Secondly, it allows efficient programming of the estimation of NUTS2 data to the NUTS3 level. This two-step approach is considered to be more reliable than directly breaking down NUTS0 or NUTS1 data to the NUTS3 level. One reason for this is that for a number of NUTS3 regions there are no data on allocations or expenditures, which would be the basis for the estimation (especially the econometric part). Thus, NUTS0 or NUTS1 data could in many cases only be roughly directly estimated to NUTS3 regions. As the data situation is much better at the NUTS2 level,

estimates from NUTS0 or NUTS1 are much more reliable. However, the lack of information does not prevent the estimation from NUTS2 to NUTS3 from being rough in certain cases. Yet, as the focus of future analysis will be on the NUTS2 regions, the consistency of NUTS2 estimates was of high importance and thus led to this two-step estimation procedure.

Estimation methods

Each estimation step uses the same set of estimation methods. On the one hand this ensured a certain amount of consistency in the whole estimation procedure, on the other hand it allowed for a more efficient programming of the estimation routines. However it is worth noting that the actual methods chosen from this set, which have been used for the estimation, depend on the nature of data.

The set of estimation methods includes the following tasks/techniques:

A. Determining of the need for estimation;

B. Breakdown by regional shares in total allocations or expenditures;

C. Equal distribution;

D. Single region estimation;

E. Proportional or inverse proportional estimation using explanatory variables;

F. Econometric estimation using 1 or 2 explanatory variables.

The actual estimation in each step follows a logically consistent decision tree that links the various estimation techniques and ensures that the appropriate technique is chosen depending on the characteristics of the data. This decision tree is shown in Figure 8. In addition, the decision tree provides information on the frequency with which each estimation technique is used. Overall the final database at the NUTS3 level has 147,727 observations. 100,786 or more than two thirds (68.2%) of these observations did not require any estimation at all. The remaining 46,941 observations (31.8% of the total) were either partly or fully estimated using one of the estimation techniques. The most frequently used method was the 'equal distribution'; around 18% of the total observations were estimated using this method. The 'econometric' and 'proportional' ('breakdown by shares') methods were applied in 7.2% and 6% of the total observations, respectively, while the other two methods were used only in rare cases (i.e. in less than 0.5% of the total observations).

Figure 8: Estimation decision tree
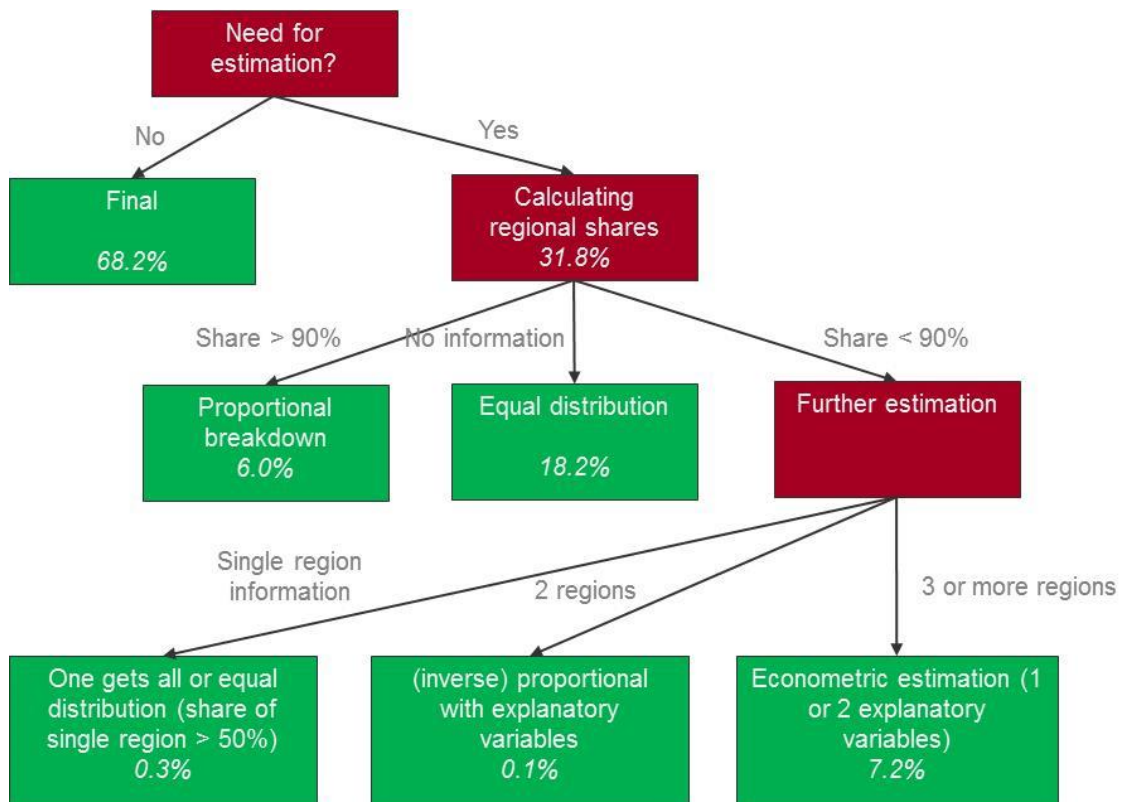
A) Determining of the need for estimation

The first task in each estimation step is to determine whether there is an actual need for estimation. To illustrate this, we assume for instance that NUTS2 data need to be broken down to the NUTS3 level, though in practice this applies also to the breakdown of NUTS0 and NUTS1 data to the NUTS2 level.

The need for estimation is determined as such that the allocations or expenditures at the NUTS2 and the respective NUTS3 regions are summed up by priorities to a combined total of NUTS2 and NUTS3 allocations or expenditures. From this, the share of NUTS3 allocations or expenditures in the combined total allocations is calculated. This is illustrated in Table 13 for allocations to selected projects 2013, Priority 03 and the Italian ITD4 NUTS2 region and its respective NUTS3 regions.

Table 13: Calculating the share of NUTS2 and NUTS3 regions

Country code	Priority Cd	Location	NUTS Level	Allocated, 2013 € million
IT	**03**	**ITD4**	**2**	**0.0270**
IT	*03*	*ITD41*	*3*	*0.5621*
IT	*03*	*ITD42*	*3*	*1.1141*
IT	*03*	*ITD43*	*3*	*0.2827*
IT	*03*	*ITD44*	*3*	*1.6696*
Total NUTS 2		ITD4	2	0.0270
Total NUTS 3		ITD41-44	3	3.6285
Total NUTS 2+NUTS 3				**3.6555**
Share in Total NUTS 2+NUTS 3, in %				
NUTS 2	03	ITD4	2	0.7
NUTS 3	03	ITD41-44	3	99.3

If the NUTS3 share is 100% this indicates that there is no NUTS2 data that needs to be broken down. Hence there is no need for estimation, and the estimation procedure stops here for the respective priority and NUTS2/NUTS3 regions.

If the NUTS3 share is less than 100% as in the example above this indicates a need for estimation, whereby the chosen estimation method depends on the size of the NUTS3 share. If the NUTS3 share is equal or higher than 90%, a breakdown by regional share in total allocations or expenditure is applied. If this share is less than 90% a different method is applied, depending on the data characteristics

B) Breakdown by regional shares in total allocations or expenditures

If the share is less than 100% but equal or higher than 90% the breakdown of NUTS2 (or NUTS0 and NUTS1) data uses a proportionality assumption and employs only the available NUTS3 data on allocations or expenditures to allocate NUTS2 data. For this, the allocations or expenditures are aggregated (by priorities) over the relevant NUTS3 regions (in the case of Table 13 these are the regions ITD41 to ITD44) and for each NUTS3 region the respective share in the aggregate are calculated. These shares are used to allocate the NUTS2 data to the NUTS3 level. This is illustrated in Table 14, which uses the same information as Table 13.

Table 14: Example of a simple estimation procedure

Priority Cd	Location	A Allocated, 2013 € million	B Share, in %	C NUTS3 share*NUTS2 allocations[1]	A+C Estimated Allocations, 2013 € million
03	ITD41	0.5621	15.5	0.0042	**0.5663**
03	ITD42	1.1141	30.7	0.0083	**1.1224**
03	ITD43	0.2827	7.8	0.0021	**0.2848**
03	ITD44	1.6696	46.0	0.0124	**1.6820**
03	Total	3.6285	100.0		

[1] divided by 100. NUTS2 allocations = 0.0270 € million, see Table 13.

If the NUTS3 share (or NUTS2 share in cases where NUTS0 or NUTS1 data are broken down) is less than 90%, the estimation methods needs to take account of the data characteristics.

C) Equal distribution

There are cases where allocations or expenditures data by priorities are only available at the NUTS2 level, while there is absolutely no allocations or expenditures information at the NUTS3 level. Since such cases are extremely rare in the Italian and Portuguese datasets used for testing the estimation method, NUTS2 data are broken down to the NUTS3 level using the assumption of an equal distribution. That is NUTS2 allocations or expenditures are divided by the number of respective NUTS3 regions, and each NUTS3 region is assigned the same share of NUTS2 allocations or expenditures.

During the meeting with DG Regio, it was discussed whether, in cases of no information at the NUTS3 level, a breakdown of NUTS2 data by the population share of NUTS3 regions (or other variables at NUTS3 level) is more appropriate than an equal distribution. After reviewing the data for which there are NUTS3 information available, it was found that the link between NUTS3 population share and NUTS3 allocations or expenditures is not particularly straightforward. Though in the majority of analysed cases there was at least some positive correlation between NUTS3 population shares and allocations or expenditures, in a large share of cases (around 40%) a negative correlation was found. Moreover, in many of the positive correlation cases, this correlation was not particularly strong. Background simulations showed that in such cases, choosing an equal distribution may in fact lead to a lower estimation error than using population share. Hence, overall the choice of using an equal distribution is considered slightly more efficient than using the NUTS3 population shares to distribute NUTS2 allocations or expenditures. Additionally, it is also consistent with the econometric model described below.

D) Single region estimation

There are also rare cases where NUTS2 data need to be broken down, but allocations or expenditures data are only available for one of the corresponding NUTS3 regions (though

the NUTS2 region consists of more than one NUTS3 region). In such cases NUTS2 data are allocated to NUTS3 regions according to the following rule:

- If the share of the respective NUTS3 region in the combined NUTS2 and NUTS3 allocations or expenditures is higher than 50%, all NUTS2 allocations or expenditures are assigned to this specific NUTS3 region.

- If the share of the respective NUTS3 region in the combined NUTS2 and NUTS3 allocations or expenditures is equal or less than 50%, the NUTS2 allocations or expenditures are equally distributed over all NUTS3 regions of the NUTS2 region in question

If the above methods do not apply, allocations or expenditures are broken down by two different statistical methods that employ a set of explanatory variables to estimate a consistent breakdown.

The current list of explanatory variables at each NUTS level includes: Population, GDP volume, GDP per capita, Gross Value Added, employment and productivity of agriculture, manufacturing industry, construction, services as well as the respective totals, population density and a measure for the employment rate (i.e. total employment over population).

E) Proportional or inverse proportional estimation using explanatory variables

There are cases where a NUTS2 region consists of 2 NUTS3 regions only. Econometric estimation in such cases cannot be applied, so a different method is needed. The essence of this method is to correlate the allocations or expenditures data of the NUTS3 regions with the data from the explanatory variables, to identify those variables that provide a best prediction of the NUTS3 allocations or expenditures data.

In practice this means that the following correlation is tested:

$$\left(\frac{AE_1}{AE_2}\right) \Bigg/ \left(\frac{X_1}{X_2}\right) = R$$

where AE_1 and AE_2 represent the allocations or expenditures of NUTS3 region 1 and 2, respectively and X_1 and X_2 represent an explanatory variable (e.g. population) for both regions. R gives the ratio of both ratios and is an indicator of the goodness-of-fit. If R is close to one, this essentially means that the ratio AE_1/AE_2 is close to the ratio of the explanatory variables X_1/X_2. In turn this means that the proportion of X_1 and X_2 is a good representation of the actual distribution of allocations or expenditures across the two NUTS3 region, and thus may be used to break down the NUTS2 data.

This correlation is tested for all explanatory variables, and the variable with the highest R is used to break down the corresponding NUTS3 data. In cases where are R is higher than 1, R is modified to 1/R to provide a measure for the goodness-of-fit.

This method assumes that the allocations of funds is proportional to the size of the explanatory variable, e.g. a region with high GDP per capita gets more funds than a

regions with low GDP per capita. However the allocation or expenditures might also be inverse proportional, i.e. the lower GDP regions gets more than the high GDP region.

To test for this the following inverse correlation is tested.

$$\left(\frac{AE_1}{AE_2}\right) \times \left(\frac{X_1}{X_2}\right) = R$$

An R close to 1 suggests an inverse relationship between allocations or expenditures and the explanatory variable. This inverse correlation is also tested for all explanatory variables.

Hence, this method allows identifying the one explanatory variable that gives the best proportional or inverse proportional approximation to the actual allocations or expenditures. This variable is then used to (inverse) proportionally break down the respective NUTS2 data to the NUTS3 level.

F) Econometric estimation using 1 or 2 explanatory variables

If the number of NUTS3 regions is larger than 2, the workhorse method is to econometrically estimate the distribution model that has been described in detail in the Inception Report. As a reminder, this model uses the following equation to consistently distribute NUTS2 data to the NUTS3 level:

$$E_i = \frac{E_{NUTS2}}{n} + b_P\left(P_i - \frac{P_{NUTS2}}{n}\right) + b_Y\left(Y_i - \frac{Y_{NUTS2}}{n}\right) + b_F\left(U_i - \frac{U_{NUTS2}}{n}\right) + \cdots + b_X\left(X_i - \frac{X_{NUTS2}}{n}\right)$$

E_i are expenditures or allocations in a NUTS3 region i; P_i is the population in region i, E_{NUTS2} are expenditures or allocations in the respective NUTS2 region, P_{NUTS2} is population. In addition to that, there is also GDP per capita (Y), the unemployment rate (U), and a variable X, which represents other potential explanatory variables (*n* is the number of NUTS3 regions.

This model is estimated econometrically for the allocation or expenditure data that are available at the NUTS3 level. The results are used to estimate the break-down of NUTS2 data to the NUTS3 level. The estimated equation is:

$$E_i = \propto_{NUTS2} + \beta_X\left(X_i - \frac{X_{NUTS2}}{n}\right) + \varepsilon_i$$

$\propto_{NUTS2}$ is a dummy for the NUTS 2 regions, X represents the indicators to be used in the regression, β_X is the estimated coefficient for the distribution parameter of the respective indicator, and ε_i is the error term. From this, NUTS2 is allocated to the NUTS3 level using the estimated β coefficients.

Because of the model's specifications, the list of explanatory variables is a bit reduced, as GDP per capita, productivity measures, population density or the employment rate cannot be used under the given specifications. Still, there are in total 13 explanatory variables, for which the model is tested. In the first round the model is estimated with one explanatory variable only (i.e. 13 estimations), and in a second round with two explanatory variables, whereby each combination of variables is tested (i.e. 78 estimations). Estimations with more than 2 variables have not been carried out, because this would have increased the estimation time significantly (using 3 variables and

estimating all possible combinations of them would results in 286 regressions and with four variables in 715 regressions).

From the two rounds, the model with the highest adjusted R^2 is used as the basis for the breakdown of NUTS2 data (or NUTS0 or NUTS1 data). The actual breakdown is done according to:

$$E_i = \frac{E_{NUTS2}}{n} + \widehat{\beta_x}\left(X_i - \frac{X_{NUTS2}}{n}\right)$$

Where $\widehat{\beta_x}$ is the estimated coefficient (or coefficients) from the model with the highest adjusted R^2. Importantly, only coefficients significantly different from zero are used (at the 10% level). In a number of cases this method produces for individual NUTS3 regions negative allocations or expenditures. In these cases the negative values are set to zero, and the positive values (for the other NUTS3 regions) are proportionally reduced by the amount of the negative value in order to ensure consistency with the original data.

In most cases this method provides a good approximation of the allocation or expenditure data. In certain cases, however, it fails to provide significant parameter estimates as no independent variable has enough explanatory power. In these cases, NUTS2 (or NUTS0 and NUTS1) funds are equally distributed across NUTS3 regions, which is consistent with the distribution model.

The estimated allocations and expenditures are tested against the collected data, to verify whether the estimations are coherent.

5.2. Estimation strategy - CBC data

If not already at the NUTS 3 level, data have been distributed according to the NUTS3 region population share.

5.3. Consistency checks

The estimated data is subject to consistency checks. Hence for each stage of the estimation it has been checked whether the estimated results corresponded in their sum to the original data. This is illustrated in Table 15 for Italy and Portugal, where the ratio of the sum of estimated values and original values is shown. That is a value of 1 indicates a perfect fit.

Table 15: Estimation checks

Country	variable	TOTAL Breakdowns	Breakdown NUTS0 – NUTS2	Breakdown NUTS1 - NUTS2	Breakdown (NUTS0 – NUTS2) - NUTS3	Breakdown (NUTS1-NUTS2) – NUTS3	Breakdown original NUTS2 - NUTS3
IT	Allocations 2013	1	0.9999999	1	1	1	1
IT	Expenditures 2013	1	1	1	1.000001	1	1.000001
IT	Allocations 2014	0.9999991	0.9999999	1	0.99999	1	0.9999959
IT	Expenditures 2014	1.000012	0.9999998	1	1	1	1.000111
PT	Allocations 2013	0.9999999	0.9999999	0.9999997	0.9999999	0.9999998	0.9999998
PT	Expenditures 2013	1	1	0.9999999	1	1	0.9999999
PT	Allocations 2014	0.9999999	0.999999	0.9999997	1	0.9999999	0.9999999
PT	Expenditures 2014	1	0.9999999	1	0.9999999	1	1

This table indicates that the estimation procedure works well in terms of consistency with the original data. However, the table also shows that consistency is not perfect, as the ratio is not exactly 1 in many cases, which means that the estimated data tends to deviate from the original data by around EUR 1,000. The reason for this deviation is the way Stata treats and stores data. Since for this project estimates have to be perfectly consistent with estimated, there is currently a work-around to this problem (basically by distributing the difference to the original data proportionally over the regions).

6. THE FINAL DATABASE (AFTER THE ESTIMATION)

There are currently two versions of the final database after estimation[24], one at the NUTS3 and the other at the NUTS2 level of regions. Both versions contain information on: a) the country, b) the programme (programme code and title), c) the Objective, d) the fund (ERDF or Cohesion Fund), e) the priority code, f) the region (NUTS 2006 codes), and finally g) the data on cumulative allocations and expenditures for 2013 and 2014.

In addition to this, the NUTS3 database also contains information on the sources of the data (with an indication whether the data or part of it were estimated) as well as additional notes. This information was dropped when the NUTS3 database was aggregated to the NUTS2 level.

Both databases are intended for the regular user and contain no further information on the estimation process.

The final databases are currently provided in Excel format. On demand, the databases can also be provided in Stata format. All Stata routines and the underlying data will be also provided if requested.

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[24] See Annex: DB_WP13_NUTS2_AE and DB_WP13_NUTS3_AE

7.   MAPS

The result of the data collection and estimation process is illustrated in five maps.

The first map is a general map showing the territorial dimension of cumulative expenditures 2014 for infrastructure, productive investment and human capital. For this, the 86 intervention priorities were aggregated to three broad categories using the scheme below.

Table 16: Aggregation of priorities for the general map

Cumulative expenditures 2014	Priority Theme	Priority codes
Infrastructure	Information society	10-15
	Transport	16-32
	Energy	33-43
	Environmental protection and risk prevention	44-54
	Urban and rural regeneration	61
Productive investment	Research and technological development (R&TD), innovation and entrepreneurship	01-09
	Tourism	55-57
	Culture	58-60
Human capital	Increasing the adaptability of workers and firms, enterprises and entrepreneurs	62-64
	Improving access to employment and sustainability	65-70
	Improving the social inclusion of less-favoured persons	71
	Improving human capital	72-74
	Investment in social infrastructure	75-79
	Mobilisation for reforms in the fields of employment and inclusion	80

The general map contains information on the share of infrastructure, productive investment and human capital in the 2014 cumulative expenditures. Notably, as not all priorities are covered by these three categories, this share is relative to the sum of the three categories and does not refer to total expenditures (however, the sum of the three categories covers 97% of total expenditures). The map also gives an indication of the total size of expenditures (again defined as the sum of the three categories).

The map is provided, differently from what was envisaged in the inception report, only at the NUTS2 level of regions. This is because there is too much information at the NUTS3 level, so that any map at this level becomes chaotic and much of the information gets lost. Several attempts have been made to produce such maps at the NUTS3 level with no satisfying results. If a general NUTS3 level map is needed, it is suggested to leave out the information on the total size of expenditures or to produce separate maps for different parts of Europe.

The other four maps show cumulative regional expenditures in: transport, environment, research and enterprise support. As these maps cover only one dimension, they could be satisfactorily produced at NUTS3 level. The expenditures for each category were calculated using the following scheme.

Table 17: Aggregation scheme for maps on: transport, environment, research and Enterprise support

Cumulative expenditures 2014	Priority codes
Transport	16-32; 52
Environment	44-54 (excl. 52)
Research	01-04
Enterprise support	05-09 14-15 62-64 68

For each of these four maps two versions are available, one showing the data on expenditures in EUR million for each category, the other showing the data on EUR per capita expenditures. The first versions of these maps are provided below, while the alternative versions are included in the Annex. All maps are provided in png and pdf format.

Figure 9: General map
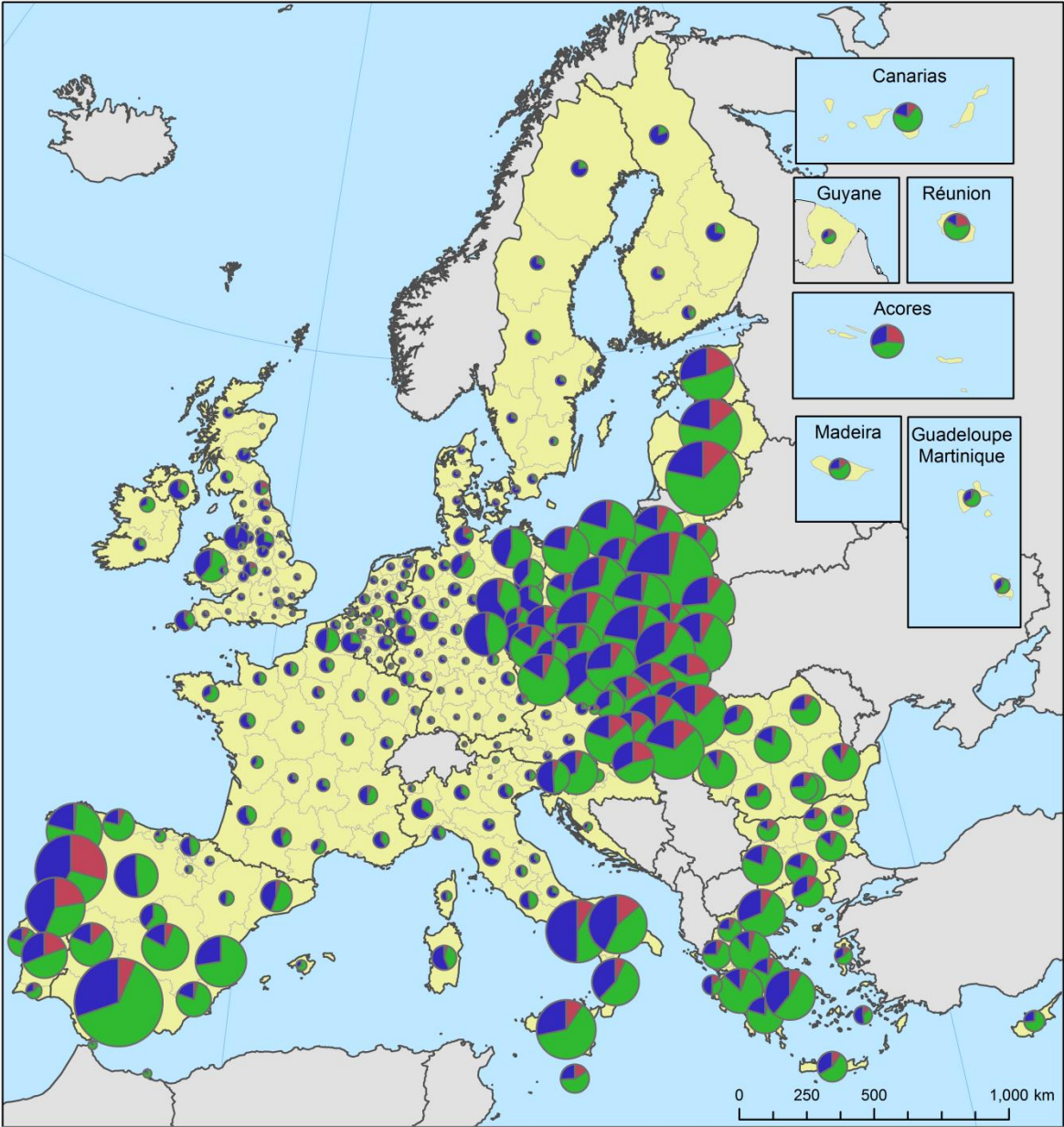
Cumulative ERDF and Cohesion Fund expenditures, 2014

Euro, mn., NUTS-2 regions

○ 750
○ 1,500
○ 3,000

Category

Productive investment — Human capital — Infrastructure

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Figure 10: Cumulative expenditures 2014: Enterprise support

Cumulative ERDF
and Cohesion Fund expenditures, 2014
Enterprise support
Euro, mn., NUTS-3 regions

Category
- below 10
- 10 to 25
- 25 to 40
- 40 to 55
- 55 to 70
- 70 to 85
- above 85

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa
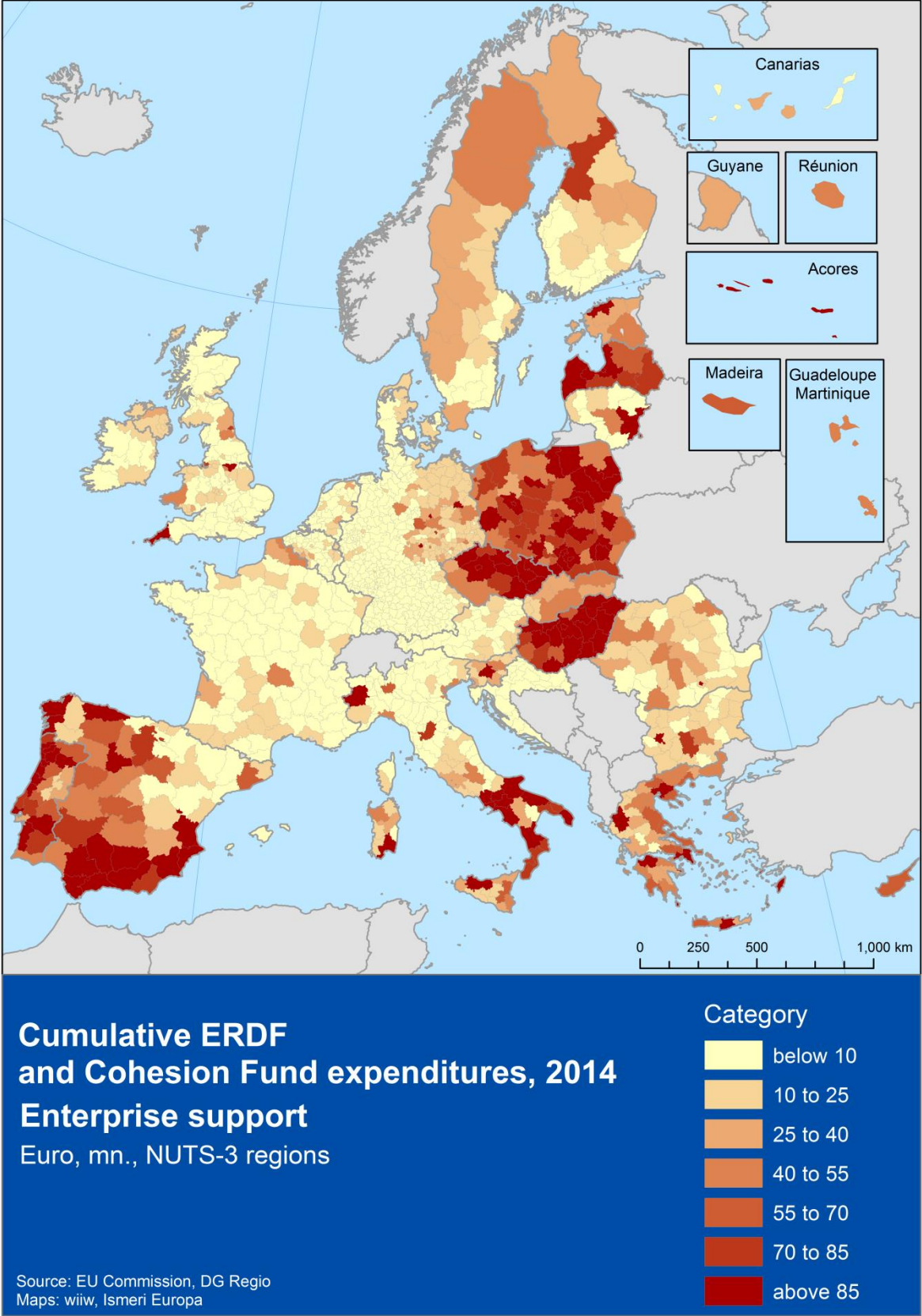
Figure 11: Cumulative expenditures 2014: Transport
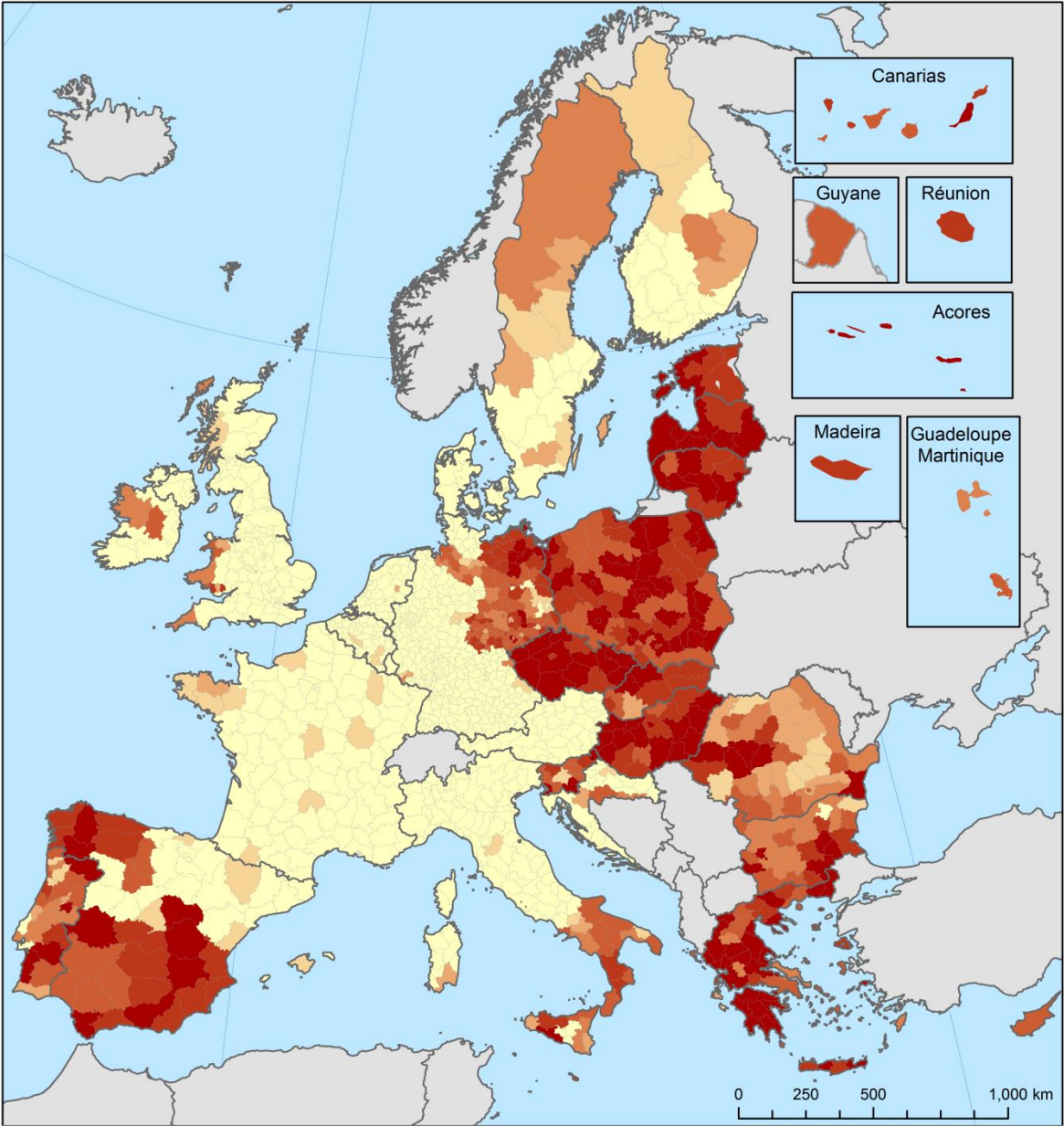
Cumulative ERDF
and Cohesion Fund expenditures, 2014
Transport
Euro, mn., NUTS-3 regions

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Category
- below 20
- 20 to 40
- 40 to 60
- 60 to 100
- 100 to 200
- 200 to 400
- above 400

Figure 12: Cumulative expenditures 2014: Research

Cumulative ERDF and Cohesion Fund expenditures, 2014
Research
Euro, mn., NUTS-3 regions

Category
- below 5
- 5 to 10
- 10 to 15
- 15 to 20
- 20 to 25
- 25 to 30
- above 30

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa
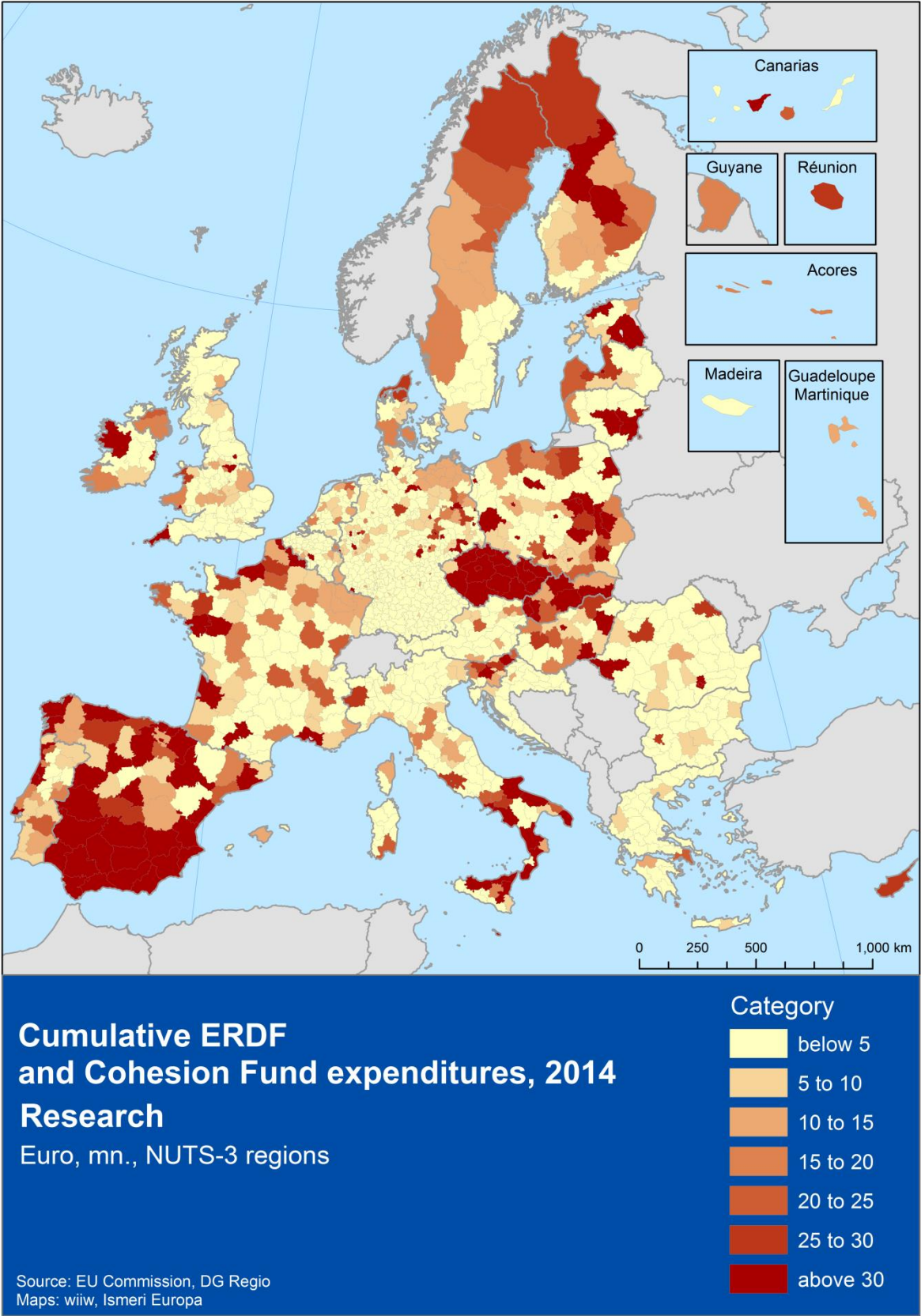
Figure 13: Cumulative expenditures 2014: Environment

Cumulative ERDF and Cohesion Fund expenditures, 2014
Environment
Euro, mn., NUTS-3 regions

Category

- below 5
- 5 to 10
- 10 to 25
- 25 to 50
- 50 to 75
- 75 to 100
- above 100

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa
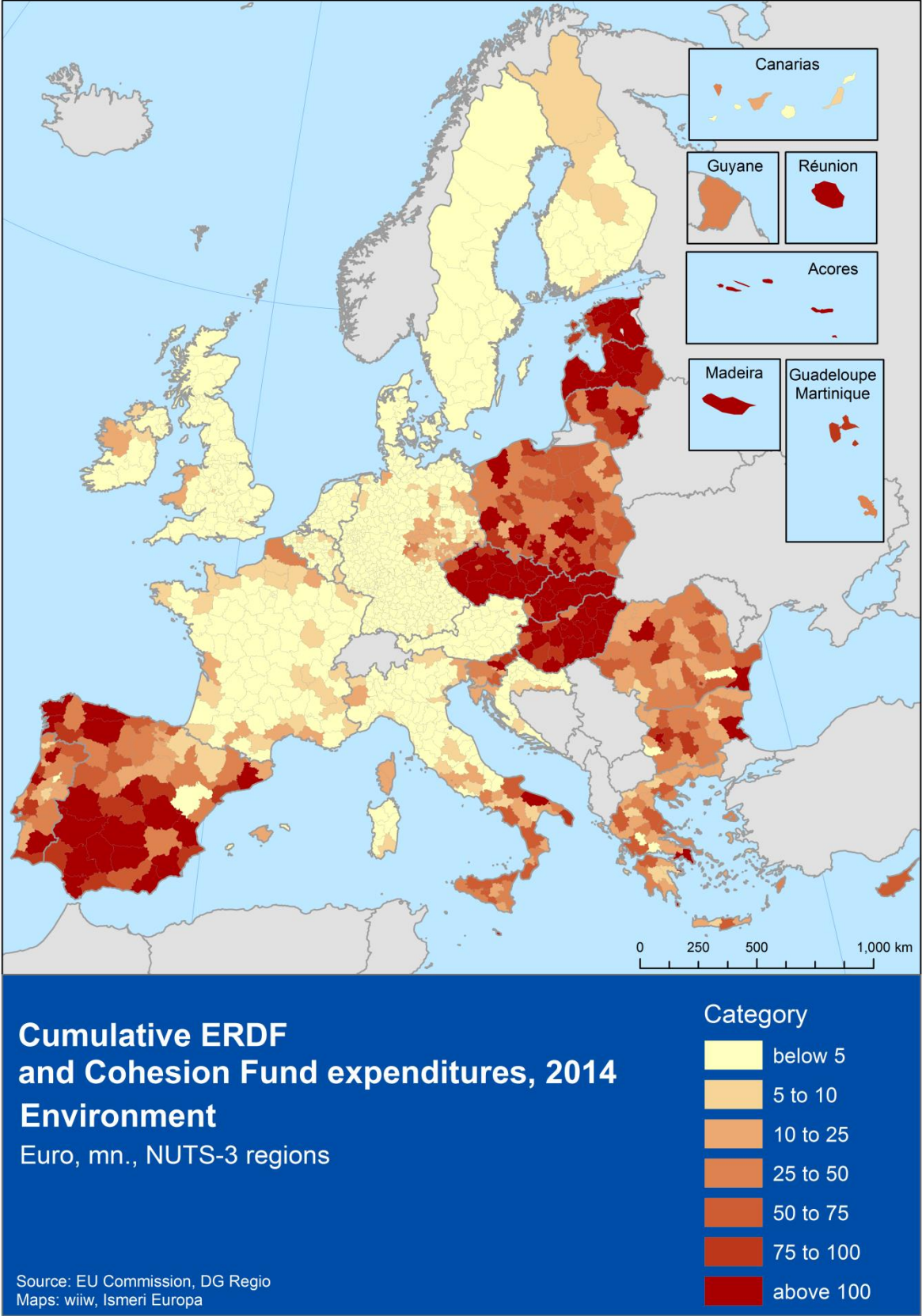
8.   CONSOLIDATION WITH 2000-2006 DATA

8.1.   *Methodological approach*

The data collected for the 2007-2013 programming period is combined with similar data collected for the 2000-2006 period[25] to form a consolidated database covering the regional ERDF and CF investments from the year 2000 to the year 2014.

The consolidation was carried out at NUTS2 level as required in the ToR. A consolidation at NUTS3 would be constrained by severe difficulties due to, first of all, the different NUTS3 versions used. While the 2000-2006 dataset is based on the 2003 NUTS classification, the 2007-2013 dataset is based on the 2006 version. The 2003 and the 2006 NUTS versions are marked by some distinct and irreversible differences in the definition of a number of NUTS3 regions (especially in Germany). Thus, those differences basically would not allow a one-to-one match of 2000-2006 and 2007-2013 data at the NUTS3 level of regions.

Finding a suitable match between the 2003 and 2006 NUTS version at NUTS2 level is much less problematic even though some regional adjustments were necessary. Firstly, Swedish regions had to be recoded from NUTS 2003 to NUTS 2006 codes. Secondly, also the 2003 UK regions UKM1 (North Eastern Scotland) and UKM4 (Highlands and Islands) were redefined as the 2006 UKM5 and UKM6 region (the respective names stayed the same). This is not completely accurate as, despite the change of codes for those two regions from the 2003 to the 2006 NUTS classification, there was also a slight shift in the boundaries of those regions. However, as this shift was assumed to have no major impact on the data, the simple recoding was considered less of a problem. Finally, the various NUTS2 regions of Denmark and Slovenia (according to the 2006 NUTS classification) were aggregated to one NUTS2 region each, to match the 2003 NUTS classification.

The second issue concerns the completeness of the data sets. While the 2007-2013 covers all EU regions, the 2000-2006 data, apart from the countries that were not yet EU Member States at this point in time, does not cover the following regions: BE24 (Prov. Vlaams-Brabant), BE31 (Prov. Brabant Wallon), DE71 (Darmstadt), NL34 (Zeeland), UKJ1 (Berkshire, Buckinghamshire and Oxfordshire), UKJ3 (Hampshire and Isle of Wight) and UKK2 (Dorset and Somerset).

Thirdly, due to an unclear situation regarding the 2000-2006 Territorial Cooperation data (i.e. it is not clear what cooperation programmes were included in the 2000-2006 analysis), the consolidated database only contains data from Objective1/Convergence, Objective 2/RCE and the Cohesion Fund.

A final important issue concerns the differences in the thematic codes between the 2000-2006 and the 2007-2013 programming period. While in the 2000-2006 period there were 20 main thematic areas[26], the 2007-2013 period is characterised by 86 priority themes[27].

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[25] See: Sweco, 2008, Final Report - ERDF and CF Regional Expenditure Contract No 2007.CE.16.0.AT.036 Project for the EU Commission, DG Regional Policy; and for the data: http://ec.europa.eu/regional_policy/en/policy/evaluations/ec/2000-2006/#4
[26] Commission regulation (EC) No 438/2001, Annex IV.
[27] Commission regulation (EC) No 1828/2006, Annex II.

Therefore, the main task in building the consolidated database was to aggregate the thematic codes of both periods to a common set of thematic groups.

The "aggregation scheme" was developed based on consultations with the EU Commission and is illustrated in Table 18.

Table 18: Aggregation scheme

	2000-2006 Priorities	**2007-2013 Priorities**
RTD	18	01, 02, 03, 04, 07, 09
Business support	11, 14, 15, 16, 0.5*12, 0.5*13	05, 06, 08, 63
Environment and natural resources	34, 0.5*12, (4/14) *13	44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56
Transport Infrastructure	31, (1/14)*13	16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 52
IT Infrastructure and services	32	10, 11, 12, 13, 14, 15
Energy	33	33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
Human resources	21, 22, 23, 24, 25	62, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 80
Social Infrastructure	36	75, 76, 77, 78, 79
Tourism and Culture	17, (2/14)*13	57, 58, 59, 60
Urban and rural regeneration	35	61
Technical Assistance	41	85, 86, 81
Other		82, 83, 84

Notably, the inclusion of the 2000-2006 priorities 11 to 14 (Agriculture, Forestry, Development of rural areas and Fisheries) proved to be difficult as there was no clear correspondence with the 2007-2013 priorities. After reviewing the 3-digit disaggregation of these four priorities, the priorities 'Agriculture' and 'Fisheries' were fully assigned to 'Business support', while 'Forestry' has been split equally between 'Business support' and 'Environment and natural resources'. 'Development of rural areas' was the most difficult case. It consists of in total 14 3-digit sub-priorities. Four of those sub-priorities were related to 'Environment and natural resources', seven to 'Business support', two to 'Tourism and Culture' and one to 'Transport Infrastructure'; 2000-2006 data for 'Development of rural areas' was split accordingly.

A further issue is that all data in the consolidated database are raw data. That is, the data was included as it was available from the 2000-2006 and 2007-2013 database. This means that no adjustment have been made with respect to inflation, so that all data are in 'current' prices. As these data are expected to be used for further analysis, we decided to minimise manipulations. The need for current- or constant-prices data is likely to depend on the objectives of the analyses which will use the data. For example, in a spatial econometric analysis constant values might be appropriate, and hence inflation should be taken into account.

The database contains information on both allocations/commitments and expenditures/payments. Importantly, while in the 2007-2013 data, both allocations and

expenditures data are original (namely collected as such at the source), for the 2000-2006 data, only commitments were collected at the source. 2000-2006 expenditure data was not available and payments have been estimated in a rather rough manner, using the absorption rates by country and fund[28]. Thus, the estimated 2000-2006 payments data is more appropriate to put the 2000-2006 commitments in some perspective rather than to be used for further analysis.

Furthermore, there are basic differences between the definition of payments accepted by DG Budget, used for the estimation of 2000-2006 data, and expenditures in the 2007-2013 database which are the EU contribution (in total eligible expenditure) paid or due to be paid to beneficiaries before end of the year (i.e. 31.12.2013 and 31.12.2014). This definition of expenditure used in the 2007-2013 database refers to art.78 of Regulation (EC) No. 1083/2006. Consequently, a comparison of 2000-2006 and 2007-2013 payments and expenditures is not straightforward. The most solid way to compare 2000-2006 and 2007-2013 data is by comparing 2000-2006 commitments and 2007-2013 allocations to selected projects. Both data are original and have the same focus (i.e. planned investments). The drawback is of course that these are only planned and not actual expenditures.

8.2.   Results of consolidation and maps

The two variants of the consolidated database are provided in separate files. Both contain data on: 2000-2006 commitments; estimated 2000-2006 payments; 2007-2013 cumulative allocations and expenditures in 2013 and 2014.

The data in the consolidated database are an interesting starting point for a longer-term analysis of the EU Cohesion Policy and its effects. Inter alia, it allows identifying shifts in the regions' ERDF and CF investment strategies as is illustrated in the maps below. All maps compare 2000-2006 commitments with 2007-2013 allocations for each of the thematic groups presented in Table 18. First, the share of each theme in total commitments/allocations has been calculated for both the 2000-2006 and 2007-2013 periods. This reflects the importance each thematic group had in either of the two periods. Then, in order to assess the change in the relative importance of each theme over time, the difference between 2000-2006 and 2007-2013 shares are calculated for a selection of thematic groups and displayed in the following maps.

The first map (Figure 14) is a general overview map, showing the changing ERDF and CF investment patterns for the three broad categories 'Environment', 'Infrastructure' and 'Productive investment'. For this, the thematic groups in Table 18 have been aggregated once more, so that 'Environment' consists of the groups: Environment, Tourism & Culture and Urban regeneration; 'Infrastructure' covers the groups: Transport, IT, Energy and Social infrastructure; 'Productive investment' covers the groups: Business support, RTD and Human resources. The general overview map suggests that in most EU regions 'Productive investment' has gained importance in ERDF and CF investment from the

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[28] Data for this were collected from:
http://ec.europa.eu/regional_policy/en/policy/evaluations/data-for-research/;   Excel   file: 'EU Payments to Member States with a breakdown by programming periods, Member States, Funds and years'

2000-2006 to the 2007-2013 period, while 'Environment' mostly declined. As far as 'Infrastructure' is concerned, there is no clear regional pattern over time.

The following maps go a bit more into detail by showing the changes over time for individual thematic groups. They reveal that the increase of 'Productive investment' is largely due to a strong increase of RTD share in total ERDF and CF investments, on the contrary, the Business support share in total commitments/allocations tends to decline in most regions from 2000-2006 to 2007-2013. Similarly, as far as infrastructure investments are concerned, there has been a more or less general shift toward investment into energy, while the patterns in the other infrastructure groups were more mixed over time and regions. Finally, as far as tourism is concerned, there is a quite interesting core-periphery pattern, as the peripheral regions tended to give more weight to ERDF investments related to tourism in 2007-2013 in comparison to 2000-2006, while, for the central regions, in general the opposite was the case.

Figure 14: General overview map, changes in ERDF and CF allocations between 2000-2006 and 2007-2013: Environment, Infrastructure and Productive Investment
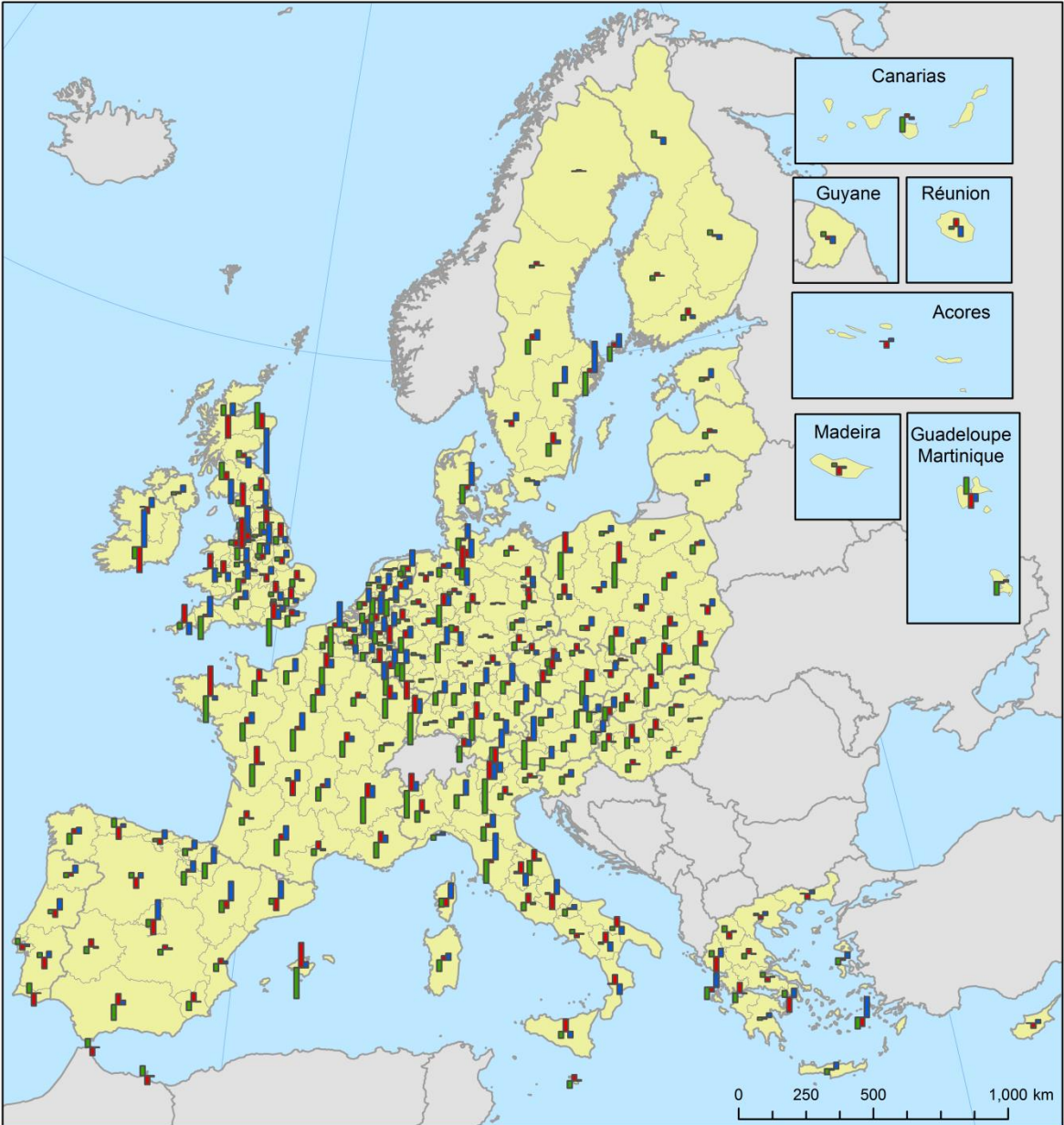
Figure 15: Changes between 2000-2006 and 2007-2013 ERDF and CF allocations: RTD
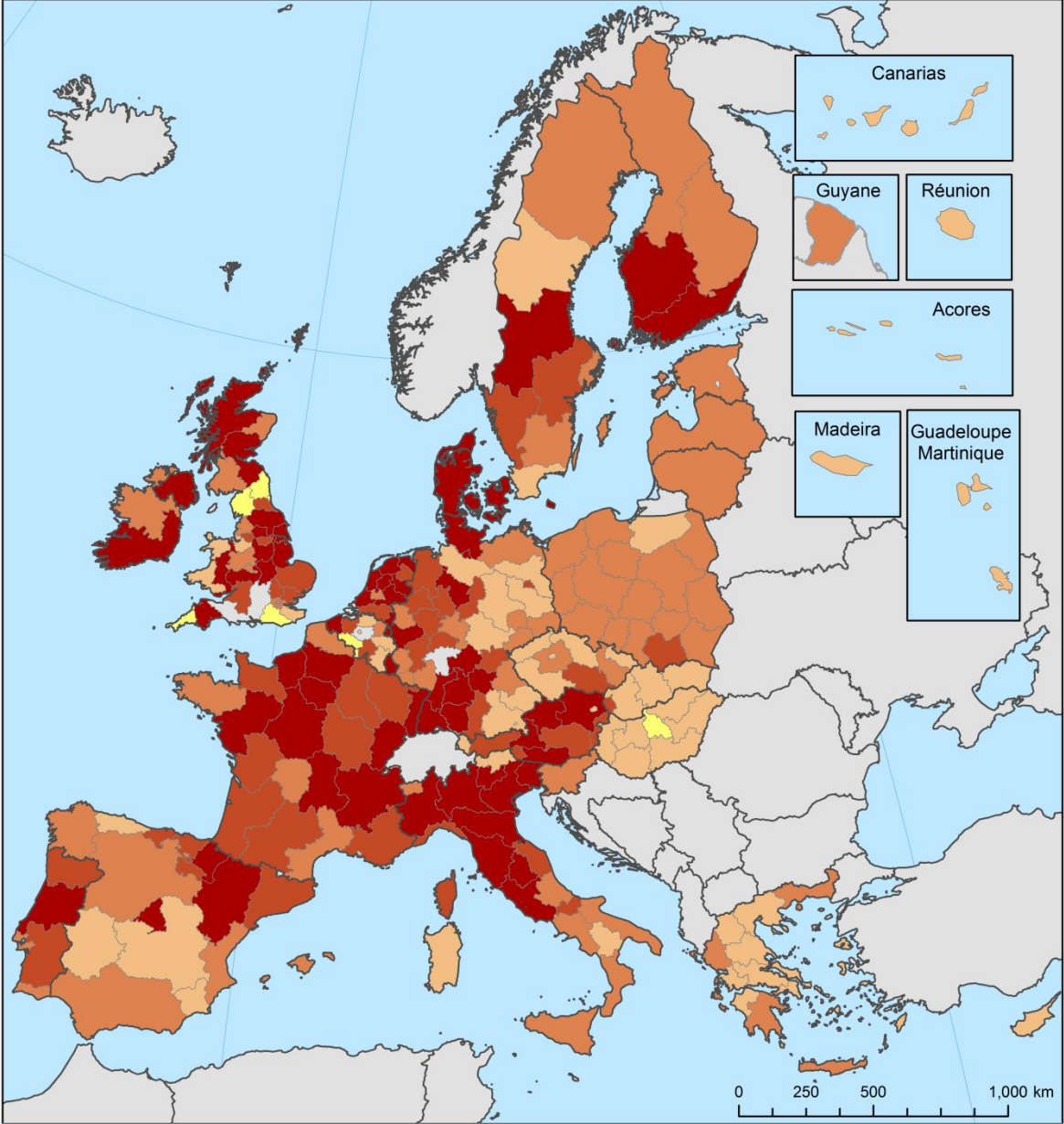
Changing patterns of ERDF and CF investments

Research and Technology

Change in shares in total ERDF and CF investments between the 2000/2006 and 2007/2013 programming period

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Change 2000/2006 to 2007/2013

- decline
- increase up to 10 p.p.
- increase from 10 to 20 p.p.
- increase from 20 to 30 p.p.
- increase above 30 p.p.

Figure 16: Changes between 2000-2006 and 2007-2013 ERDF and CF allocations: Business support

Changing patterns of ERDF and CF investments

Business support

Change in shares in total ERDF and CF investments between the 2000/2006 and 2007/2013 programming period

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Change 2000/2006 to 2007/2013

- decline by over 20 p.p.
- decline from 10 to 20 p.p.
- decline from 0 to 20 p.p.
- increase from 0 to 5 p.p.
- increase over 5 p.p.
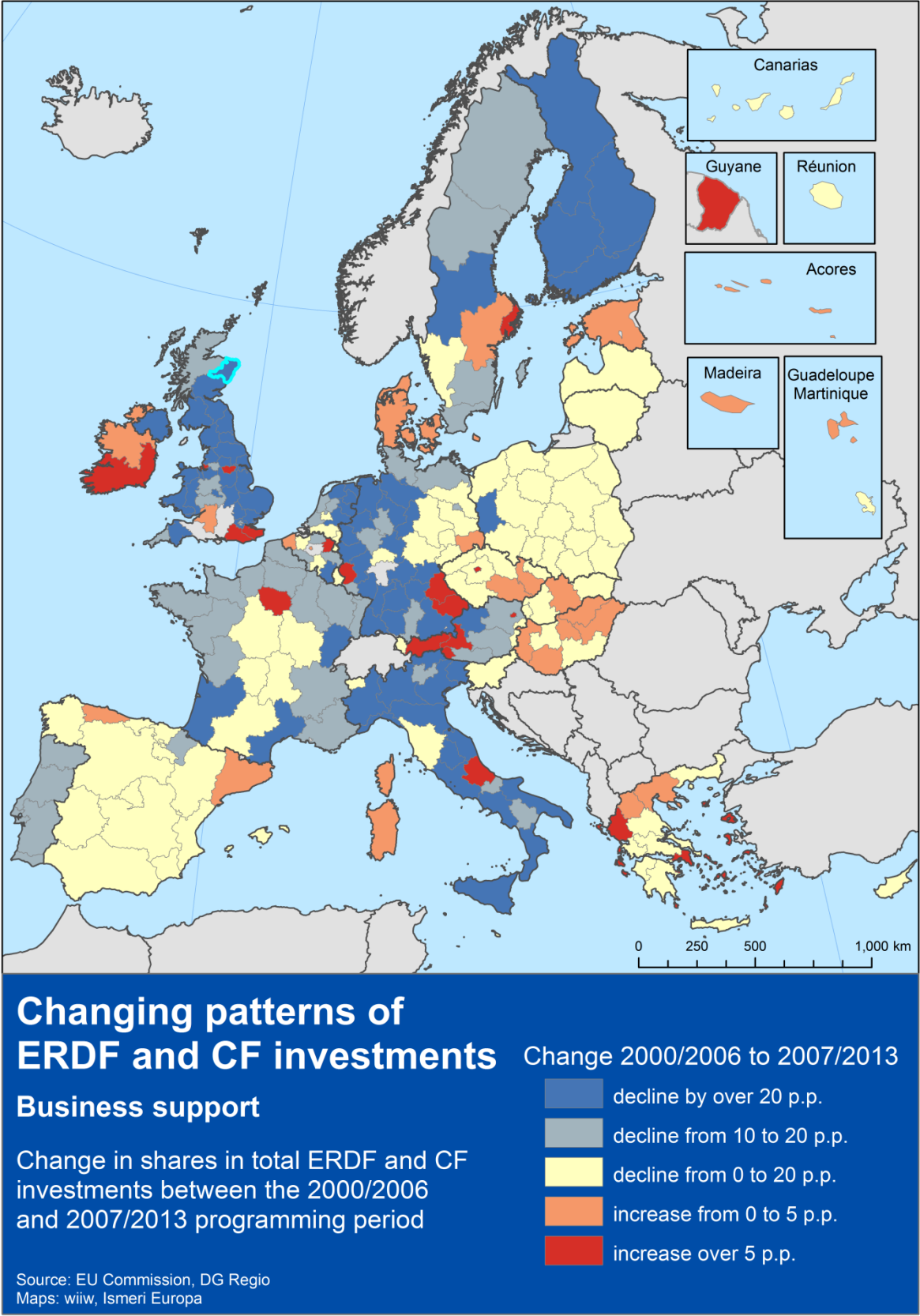
Figure 17: Changes between 2000-2006 and 2007-2013 ERDF and CF allocations: Energy

Changing patterns of ERDF and CF investments

Energy

Change in shares in total ERDF and CF investments between the 2000/2006 and 2007/2013 programming period

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Change 2000/2006 to 2007/2013

- decline by up to 6 p.p.
- increase by 0 to 5 p.p.
- increase by 5 to 10 p.p.
- increase by 10 to 15 p.p.
- increase by over 15 p.p.
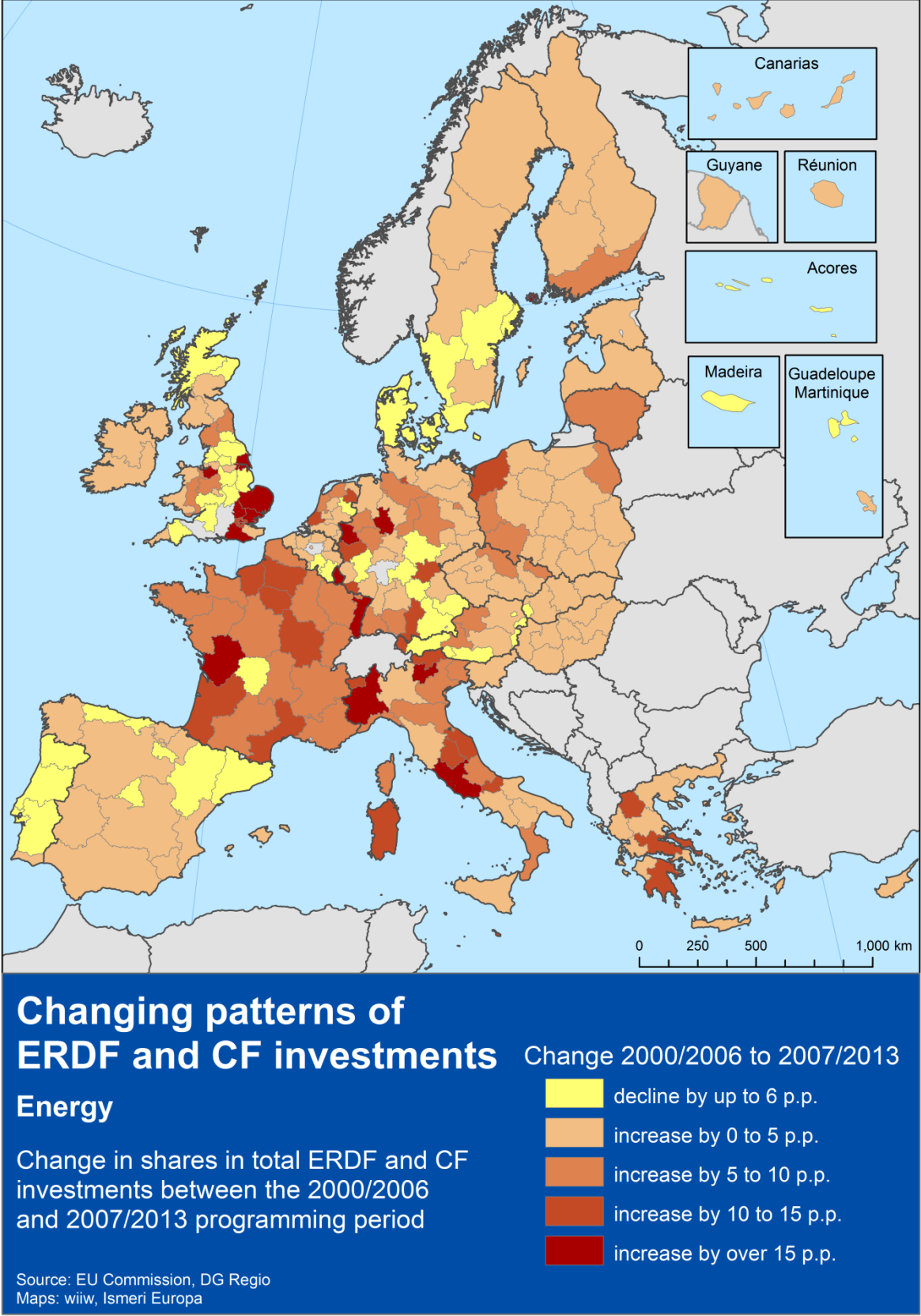
Figure 18: Changes between 2000-2006 and 2007-2013 ERDF and CF allocations: Transport infrastructure

Canarias
Guyane   Réunion
Acores
Madeira   Guadeloupe Martinique

0   250   500   1,000 km
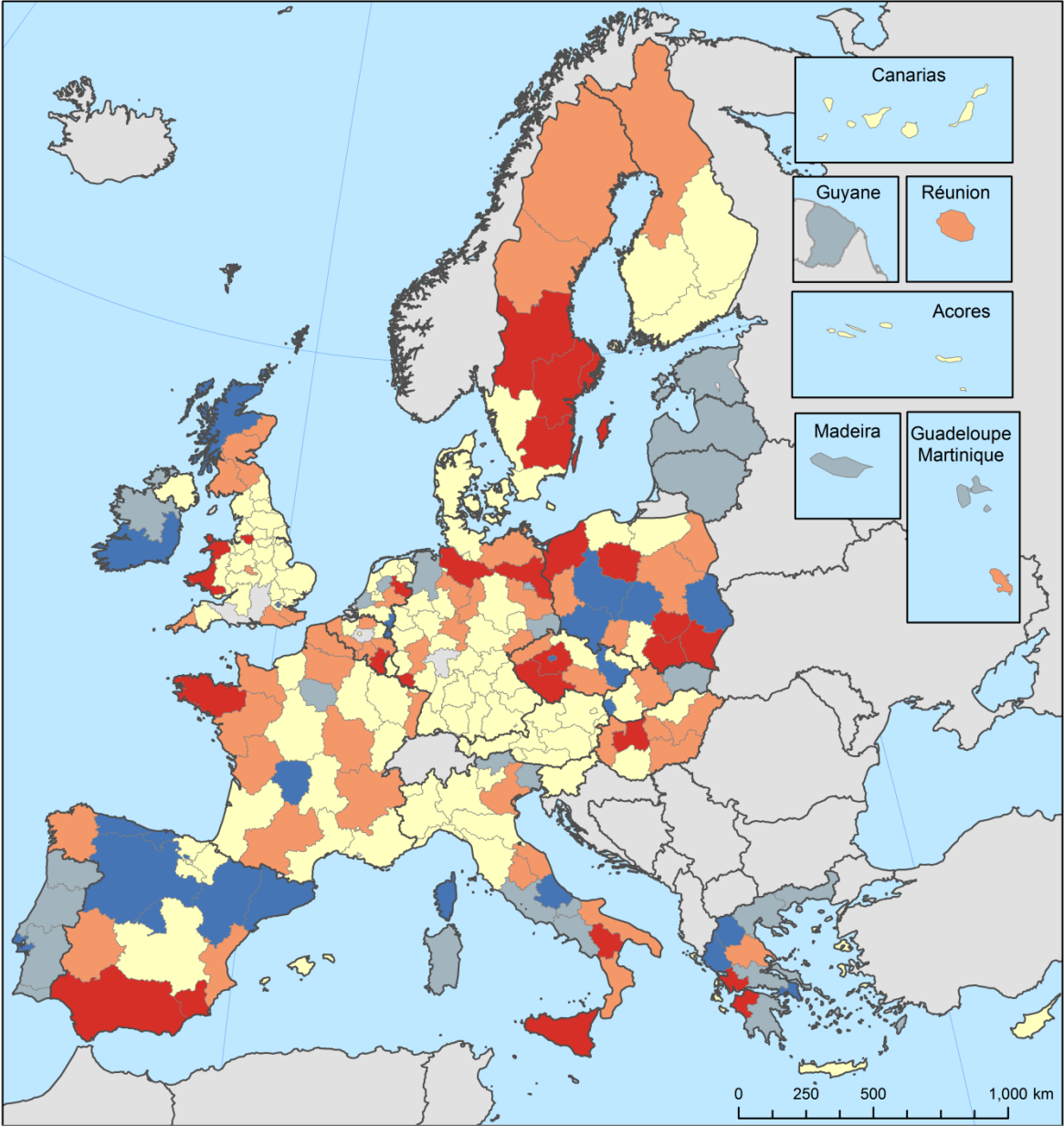
Changing patterns of ERDF and CF investments

Transport infrastructure

Change in shares in total ERDF and CF investments between the 2000/2006 and 2007/2013 programming period

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Change 2000/2006 to 2007/2013

decline by over 20 p.p.

decline by 20 to 10 p.p.

decline by 0 to 10 p.p.

increase by 0 to 10 p.p.

increase by more than 10 p.p.

Figure 19: Changes between 2000-2006 and 2007-2013 ERDF and CF allocations: Tourism and Culture
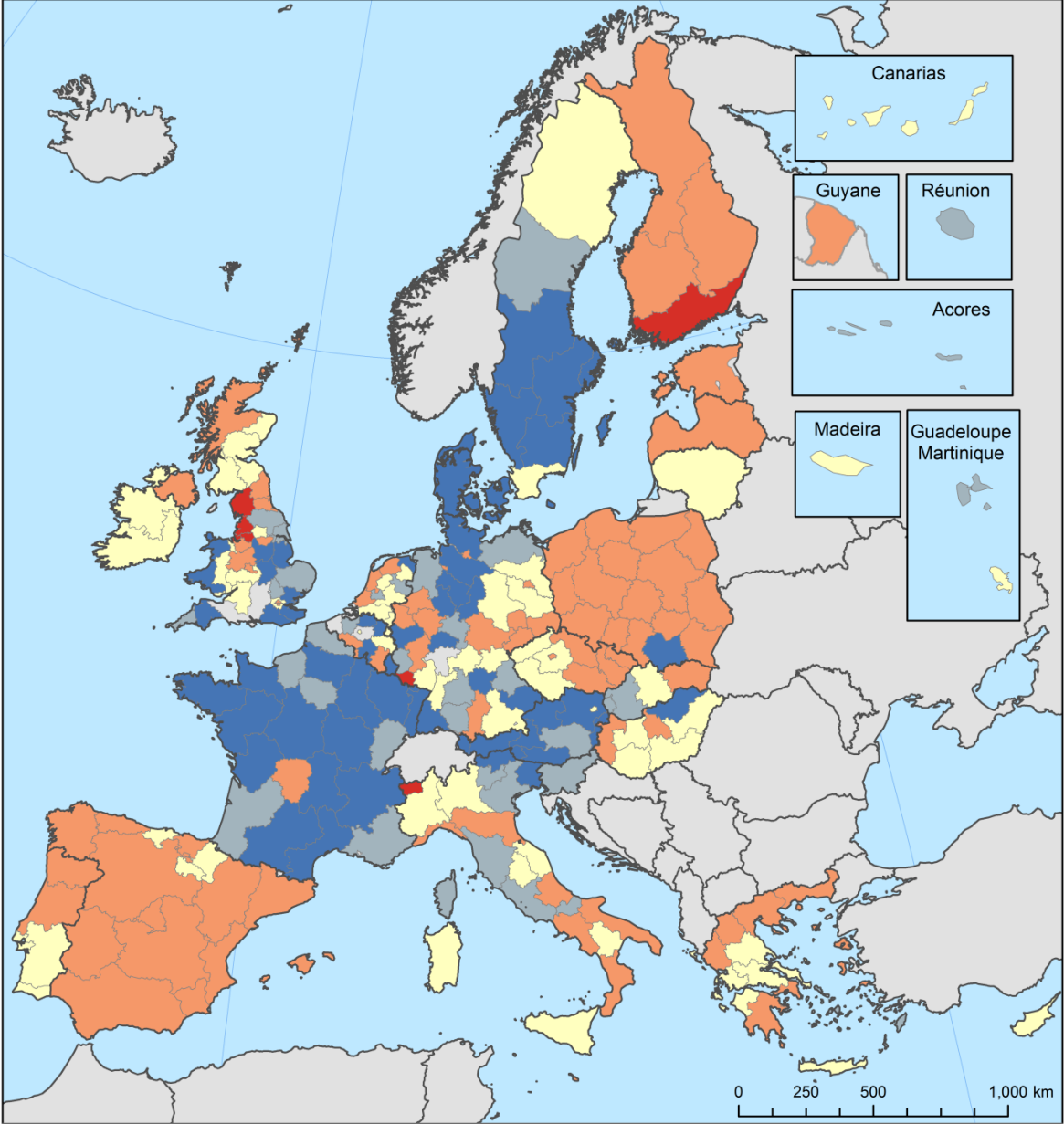
Changing patterns of ERDF and CF investments

Tourism and Culture

Change in shares in total ERDF and CF investments between the 2000/2006 and 2007/2013 programming period

Source: EU Commission, DG Regio
Maps: wiiw, Ismeri Europa

Change 2000/2006 to 2007/2013

- decline by more than 10 p.p.
- decline by 5 to 10 p.p.
- decline by 0 to 5 p.p.
- increase by 0 to 10 p.p.
- increase by more than 10 p.p.

9. INVESTIGATION OF 1994-1999 DATA

9.1. Main steps of the investigation

The objective of this task is to verify whether the data collected within a 2006 ESPON[29] study on the 1994-1999 period, "The Territorial Effects of the Structural Funds", can be used and integrated with the 2000-2006 and 2007-2014 data assembled as part of WP13 at NUTS2 level.

In particular, the following activities have been carried out:

- An analysis and first assessment of the 1994-1999 data produced by the ESPON study, also in the light of the previous tasks (especially Task 5). As part of this activity, the ESPON data gathering process and the methodology applied in the study was reviewed and assessed, as far as possible, on the basis of the available information;
- A first assessment of the feasibility of using this data to create a single time series 1994-2013, especially for Objective 1/Convergence regions (including Cohesion Fund spending in these regions);
- Discussion of critical issues to be further analysed if the EC were to consider building a single database for 1994-2013: limitations, difficulties and obstacles.

9.2. Analysis and assessment of 1994-1999 data

Objectives, scope and structure of the study and its output

All the available material produced within the ESPON study was collected and explored. This includes a final study report available online and a series of excel datasets. It is worth noting that the ESPON study was not focused only, or majorly, on collecting and reorganising data. The study included ten Work Packages and the dataset is an output of Work Package 4. The Work Packages are:

1. Elaboration of Concepts and Methods for the Measurement of Territorial Impact
2. Formulation of Hypothesis for the Measurement of the Territorial Dimension of SF
3. Reference Framework for the Analysis: European Spatial Development and Territorial Cohesion in the 21st Century
4. The Geography of Structural Fund Investment (1994-99): Spending and Output by Region
5. Comparative Analysis of National Systems Affecting the Structural Funds
6. Structural Fund Influence on Territorial Cohesion and Specialisation
7. The Impact of the Community Initiative Interreg on Spatial Integration
8. Final Analysis: The Territorial Dimension of the Structural Funds
9. Development of Policy Recommendations

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[29] Study available online:
http://www.espon.eu/main/Menu_Projects/Menu_ESPON2006Projects/Menu_PolicyImpactProjects/structuralfundsimpact.html

10. Information Sharing and Overall Co-ordination

The Final report of the ESPON study is made of three main parts:

- Part A includes an executive summary as well as a synthesis of the key concepts, methodology, typologies and indicators used in the study.
- Part B presents the main results of the study: analysis of Structural Funds activities in the light of spatial policies (strategies, actual interventions, governance and delivery aspects), the geography of spending and macroeconomic impact of structural policies, case studies on the territorial effects of Structural Funds, the relation between national regional policies and Structural Funds, the contribution of Interreg to polycentric development, conclusions and policy implications.
- Annexes, including a list of indicators developed and datasheets provided, references, case study summary sheets etc.

The most relevant sections, which the present assessment is focused on, are the synthesis of the methodology (included in Part A), the chapter on geography of spending (Part B), the part of the Annexes which present indicators and datasheets, and finally, the actual datasets in Excel form.

The datasets produced by the study were received from the Commission after the Progress meeting held in Brussels on the 1st of July 2015. Four Excel files were obtained:

- 183_Structural_Fund_Expenditure_N299R: data on expenditure by "priority" at NUTS2
- 183_Structural_Fund_Expenditure_N299RM: list of variables used in the NUTS2 dataset and other information (e.g. NUTS version)
- 183_Structural_Fund_Expenditure_N399R: data on expenditure by "priority" at NUTS3
- 183_Structural_Fund_Expenditure_N299RM: list of variables used in the NUTS3 dataset and other information (e.g. NUTS version)

Our focus is on NUTS2 and, therefore, the first 2 spreadsheets were taken into account.

Considering all the available information, first of all, the team carried out an analysis of the methodology used in the ESPON study, described in the relevant sections of the Final report, as mentioned earlier.

Secondly, the team examined the structure and contents of the NUTS2 dataset and reviewed all the accompanying information. The results of this analysis are summarised in what follows with a view to highlight the main constraints in terms of reliability and robustness of the output produced by ESPON.

In addition to this desk research, we tried to establish a contact with Nordregio, leader of the ESPON study, in order to deepen the understanding of the methodology and arrange, if possible, an interview. This attempt was not successful despite a general positive response from some people in Nordregio, due to the fact that some key experts involved in the ESPON study have left the organisation. Moreover, as pointed out by the contacts, too long of a time span has passed and it is difficult to reconstruct methodological steps

with a greater detail than what is already in the report, which nonetheless, is often too generic according to us in order to be able to fully assess the reliability of those data.

The part of the ESPON study which, as far as geography of expenditure is concerned, primarily aimed at assembling NUTS3 level expenditure data, was based on an extensive search at national and regional level. The results of this effort, according to the Final report itself, were rather inconclusive as several obstacles were encountered.

Even though the challenges were somehow solved and a dataset was eventually produced, several features of the approach deserve to be mentioned as they are likely to affect the reliability of the output.

Geographical coverage
The dataset covers the Member States of the EU15 only. This is a limitation in comparison with the 2007-2013 period database but it is in line with the consolidated dataset produced in Task 5 (see previous chapter of this report).

Amounts considered
The 1994-1999 dataset contains figures on expenditure approved by the EC when available. The collection was carried out by country and, in some of them, programmes had still to be closed or revised at the time of the study. Therefore, the amounts considered are not uniform across countries and programmes. When official data of approved expenditure was not available, figures on planned initial expenditure or "unofficial" final expenditure were used. It is not fully clear what it is intended with unofficial expenditure but the sources of the data are varied as shown in the following table ranging from government and administration data to programming documents, to online available information on progress, to evaluation reports and data produced by research institutes etc.

The table below provides some information on sources as well as level of details and relevant issues across countries. These have been extracted from the country case studies annexed to the ESPON report.

It is worth noting also that in some cases only per capita expenditure was available. This was converted in absolute amounts by multiplying them by the average population of the area. The years considered to calculate the average are not mentioned.

Table 19 - Sources of data and relevant issues by country

Country	Sources	Level of detail	Notes from country case studies: limits and issues which may affect reliability
AT	• Austrian Conference on Spatial Planning (OROK)	NUTS2 and NUTS 3	• Data was not differentiated among objectives. • Some variations compared to the EC spending tables.
BE	• Accessible programme documentation available from web sites • Data provided by Ministry of the Walloon Region and the Flemish Ministry of Economics and Employment	Only NUTS 2	• Data was prepared by extracting evidence of project expenditure from relevant reports and then cross checking and supplementing this with expenditure information as presented in the 11th Annual Structural Funds Report. • According to the case study, the exact distribution of expenditure by the different funds was not clear. If the available figures are planned or final expenditures was not clear either.

			• No information on exchange rate used to convert Belgian Francs.
DE	• BBR – German federal research institute	NUTS2 and NUTS3	• The BBR provided information on the total spending per fund in two different formats: (1) figures on the totals for the respective objectives in the federal states; (2) per capita figures for the same categories. • No geographical distribution of data concerning some funds managed at national level (e.g. ESF). • The report does not specify neither the level of detail of the received data nor the methodologies used for the distribution.
DK	• Managing Authorities	NUTS2 and NUTS3 (except parts of Obj. 5b at NUTS2)	• The report does not include information on how data were treated and classified once collected.
ES	• Programming documents, implementation reports and evaluations of National OPs, Regional OPs, Major ERDF projects and Infrastructure projects (CF)	NUTS2 and NUTS3	• Data were collected directly at NUTS2 level.
FI	• Ministry of Interior (ERDF) • Ministry of Labour (ESF) • Ministry of Agriculture and Forestry (FIFG – EAGGF)	NUTS and NUTS3 (except Obj. 3 only at NUTS2)	• Objective 3 data was available only at national level with the exception of Aland (available at NUTS3). Data were distributed between the eligible regions based on population share. • According to the report, two programmes were excluded from the analysis because of 'general problems in collecting regional data'. There is no further information on excluded programmes.
FR	• Accountancy sheets	NUTS2 and NUTS3	• Data on the OPs managed at national level were allocated to NUTS2 level on the basis of the eligible 1999 population. • Data converted from Francs by using the official exchange rate agreed when the EURO was introduced (1 January 1999).
GR	• Ministry of Economy and Finance • Commission documents and AIRs, Periodic Reports (CF)	NUTS2 and NUTS3	• Data were provided by the Ministry directly at NUTS3 level.
IE	• Draft closure reports submitted to the EC for each OP	NUTS2 and NUTS3 (breakdown by population)	• Currency-related issues mentioned in the national report but no information on how these were managed.
IT	• Ministry of Economy and Finances	NUTS2 and NUTS3	• Final implementation data validated by the EC were not yet available. Pre-final data obtained from the Ministry were used in the calculations to estimate the final contribution for each fund. It is not explain how this contribution was calculated. • Some multi-regional OPs data distributed across NUTS2 on the basis of population but

			little information on the breakdown.
NL	• Ministry of Agriculture (Obj. 5b) • Ministry of Economic Affairs (Obj. 2 and Obj. 1) • Ministry of Social Affairs (ESF funding Obj. 3 and 4 and partly Obj. 2) • Provinces	NUTS2 and NUTS3	• According to the case study, there was no central unit that kept track of the SF spending in the country. • The report is unclear on the typology and level detail of the data collected, and on procedures followed to distribute data.
PT	• Programming documents, implementation reports and evaluations of National OPs, Regional OPs, Major ERDF projects and Infrastructure projects (CF)	NUTS2 and NUTS3	• Data were collected directly at NUTS2 level.
SE	• Swedish agency for business development (ERDF and EAGGF) • Swedish National Labour Market administration (ESF) • National board of fisheries, department of markets and structural policy (FIFG) • Board of agriculture (EAGGF)	NUTS2 and NUTS3	• Data were collected at NUTS3 level and then aggregated at NUTS2 level.
UK	• N/A	NUTS2 and NUTS3	• According to the case study, in some cases, final programme closure reports were still awaiting EC approval. Objective 3 ESF data for England and Wales were not obtained. Scottish data only available at Scotland-wide level. • In case of OPs covering more than one NUTS2, expenditure was redistributed on the basis of population.

Source: country cases annexed to the Final ESPON report.

Funds and EU contribution

The focus of the 1994-1999 data is not only on ERDF and CF but rather on most of the Structural Funds available in the period:
- ERDF (European Regional Development)
- ESF (European Social Fund)
- EAGGF (European Agricultural Guidance and Guarantee Fund)
- FIFG (Financial Instrument for Fisheries Guidance)
- Cohesion Fund

The dataset are focused on the EU share of expenditure, hence, the EU contribution was collected. When this was not possible, the EU share was calculated. However, we do not have clear information on how the EU share was calculated and in which countries.

NUTS definition

The 1999 NUTS version was used. However, the Final report does not clearly explain how coding changes which took place during the programming period[30] were addressed when they had an impact on distribution of expenditure[31].

Spending typology

Before mapping the obtained data, the ESPON study developed a Structural Fund spending typology. According to the Final report, given the variety of spending typologies among the different EU Member States, it was not possible to use a more detailed typology, therefore, the approach was to assign typologies according to the predominant funds involved and according to the predominant character of the Structural Fund programme (Objective 5b – rural development, Objective 3 – social integration and human resources).

The rough typology was developed in order to allow general insights into the type of spending. This information has however to be handled carefully, **as it does not reflect topics covered at programming or measure level, and in certain cases different funding sources are collapsed into one category**, e.g. in the case of Objective 5b both ERDF and EAGGF funding are considered as 'rural development'.

The report points out that by following this approach (i.e. assign typologies according to the predominant funds involved), it was possible to locate and categorise most of the Structural Funds assistance for Objectives 1, 2, 3, 5b and 6, which corresponded to 93.5% of the Structural Fund investments between 1994 and 1999. See the following figure for an illustration of how funds were assigned to typologies.

In the actual dataset, Community Initiatives, Innovative Projects, Objective 4 and Objective 5a programmes have not been included, as Structural Fund expenditure was relatively low and/or the regional distribution of the Funds was extremely difficult to trace. The reason for omitting a number of programmes was simply the lack of consistent data, while for Objectives 1, 2, 3, 5b and 6 the ESPON study team obtained the most consistent and comparable data.

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[30]See: http://ec.europa.eu/eurostat/documents/345175/629341/NUTS+1981-1999/3690c8d8-505f-4ca6-affc-ab34b4f648d6. This was also due to the fact that the obligation to maintain the same codification for at least three years (as stated in the Commission Regulation EC No 1059/2003) was not entered into force at that time.

[31] For instance, in the national UK report, it is stated that between 1996 and 1998, new unitary and two-tier authorities were introduced, resulting in changes to the administrative maps. This meant that programme boundaries drawn up previously were difficult to reconcile with the new NUTS3 areas.

Figure 20 - Description of how Structural Funds were assigned to spending typologies

TYPE OF SPENDING / STRUCTURAL FUND PROGRAMME	REGIONAL DEVELOPMENT, PRODUCTIVE INFRA-STRUCTURE R	AGRICULTURE, FISHERY, RURAL DEVELOPMENT A	SOCIAL INTEGRATION, HUMAN RESOURCES S	BASIC INFRA-STRUCTURE, EUROPEAN COHESION C	INNOVATION AND EXPERIMENTAL SPENDING I
Objective 1/6 – ERDF	☑				
Objective 1/6 – ESF			☑		
Objective 1/6 – EAGGF		☑			
Objective 1/6 – IAGF		☑			
Objective 2 – ERDF	☑				
Objective 2 – ESF			☑		
Objective 3			☑		
Objective 4			☑		
Objective 5a		☑			
Objective 5b		☑			
Projects Cohesion Fund				☑	
Leader II		☑			
Adapt/ Employment			☑		
Rechar II/ Resider II/ Retex/ Konver/ SME	☑				
Peace	☑				
Urban	☑				
Regis II	☑				
Pesca		☑			
Innovative Actions Art. 10 ERDF (RIS, RTT, RISI, Terra, NSfE, Culture, TEP)					☑

Source: ESPON Final report

In conclusion, the final typologies of spending included in the Excel dataset are the following:

1. SFA99N2 - Structural Fund expenditure related to Agriculture, Rural Development and Fishery (Obj. 5b and 6, EAGGF, IAGF) 1994-1999
2. SFCT99N2 - Cohesion Fund expenditure related to Transport 1994-1999
3. SFCE99N2 - Cohesion Fund expenditure related to Environment 1994-1999
4. SFT99N2 - Structural Fund and Cohesion Fund expenditure - All funds included in Operational Programmes and SPDs, Objectives 1, 2, 3, 5b and 6
5. SFR99N2 - Structural Fund expenditure related to Regional Development and Productive Infrastructure (Obj. 1, 2 and 6 ERDF) 1994-1999
6. SFS99N2 - Structural Fund expenditure related to Social Integration and Human Resources (Obj. 1, 2, 3 and 6 ESF) 1994-1999

Overall, the ESPON dataset provides information on the geographical distribution at NUTS2 and NUTS3 level of EUR 116,533.2 million of Structural Fund expenditure[32]. The distribution of expenditure by country is shown in the figure below.

Figure 21 - Spending by country in 1994-1999 (EUR million)
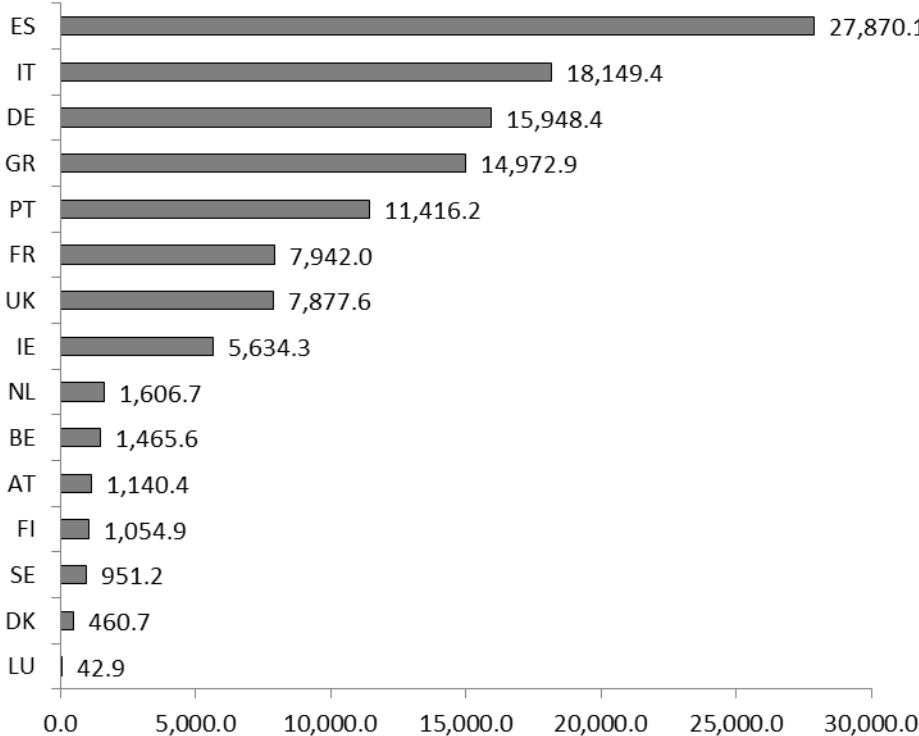
Source: own elaboration on the basis of 1994-1999 ESPON dataset

The following figure shows the shares of expenditure by spending typologies, as defined in the Study, across EU15 countries. According to the applied categorization, the transport and environment typologies are relevant only for four Member States (Ireland, Portugal, Spain and Greece), as they have been constructed on the basis of the Cohesion Fund.

Currency
Most data concerning the Structural Funds programmes 1994-1999 still existed in national currencies and not in Euros. This issue was solved using a common timeline for converting national currencies into ECU and Euros.
Apparently, the timeline is not reported in the ESPON final report. In addition, most of the national reports underline the existence of inconsistencies in how available expenditure was expressed for that period (i.e. often parts of the expenditure data were in national currency and other parts in Euros).

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[32] The total amount of structural and cohesion funds for the period 1994-1999 was around 166 billion of ECU

Estimations and breakdown approach

In the ESPON Final Report there is no clear information on the share of data estimated or broken down, nor on the extent to which the collected data were already at NUTS2 or NUTS3.

Even considering that we are interested only in NUTS2, the dataset highlights for each variable that "data (were) manipulated in some cases" but it does not fully clarify when and how.

As regards the breakdown of expenditure at NUTS3 level, data was distributed according to population. It can be assumed that this method was used also to breakdown data available at lower level of detail into NUTS2. For more information on these issues and on obstacles encountered in each country see the country table mentioned earlier.

Figure 22 - Spending by typology across EU15 countries in 1994-1999
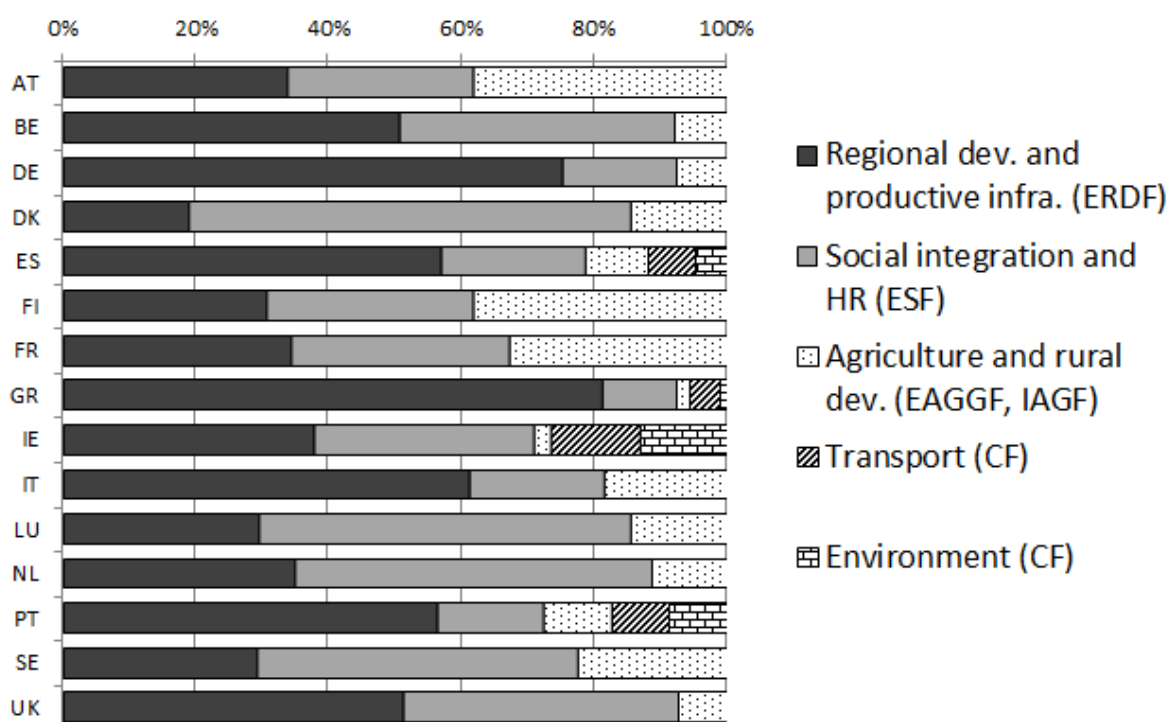
Source: own elaboration on the basis of 1994-1999 ESPON dataset

9.3. Credibility and feasibility of a single time series for the period 1994-2013

The previous paragraphs provided an overview of the features of the 1994-1999 data and by doing so they highlighted its main limitations. It is worth noting that the analysis is based on the available information and hence it is constrained by the scarcity of methodological evidence included in the report and in the spreadsheets. In other words, the accompanying information on the database and underlying methodology is poor and not all issues can be satisfactorily clarified.

The main limits, emerging from our analysis of the 1994-1999 data, which are relevant to understand the feasibility of a consolidation with subsequent data, are related to the type of amounts considered, the very low detail available, both geographically and in terms of spending typologies, the lack of information on funds and Cohesion objectives in the database.

Some other problems such as those related to NUTS coding are not insurmountable, even though making the definitions uniform over time could be time consuming and involve some degree of estimation in some cases.

Amounts considered

The possibility of creating a single series covering 1994-2014 is constrained by the various shortcomings of the ESPON dataset which were highlighted in the previous paragraph but also in the light of the features the dataset which consolidates 2000-2006 and 2007-2013. The consolidated dataset contains both data on allocations to projects selected and on expenditure. As highlighted in the previous chapter (Task 5), allocations are coherent across the two periods. As regards expenditure, 2000-2006 data were estimated on the basis of payments approved by the DG Budget while the 2007-2013 expenditure have been collected from the MAs and reflect the definition of art. 78 of Regulation (EC) No. 1083/2006.

A single database covering all the programming periods could not be done on allocations to projects selected, as these are not available in 1994-1999, but it should focus on expenditure. However, a single dataset on expenditures would basically include 3 vectors that have been assembled with different methods and from different sources.

Typologies of expenditure

As previously pointed out, the approach used in the ESPON study was to assign typologies according to the predominant funds involved and according to the predominant character of the Structural Fund programme. The result of this approach is a coarse set of five categories which allow a general insight into the type of spending but it is, in no way, comparable with the 2000-2014 priorities.
Indeed, 1994-1999 typologies do not reflect topics covered at programming or measure level, and in certain cases different funding sources are merged into one category such as the mentioned case of Objective 5b: both ERDF and EAGGF funding are considered as 'rural development'.
The immediate consequence of this approach is that, in the best possible scenario, it would be meaningful to use only the total of 1994-1999 data rather than its breakdown by typology for a consolidation.

Difficulty to separate Funds and Cohesion objectives

The 1994-1999 expenditure is a "melting pot" of funds (ERDF, ESF, EAGG, CF etc.). Consolidation with 2000-2014 data (ERDF + CF) would require to isolate ERDF and CF, something that the ESPON dataset does not allow.

This is a major shortcoming which prevents a consolidation, unless a method to estimate ERDF and Cohesion Fund starting from the total is identified. This would be in any case a highly approximate and rough exercise.

The terms of reference highlighted that the interest of the Commission was to understand the feasibility of a single timeline of data, especially for Objective 1/Convergence regions (including Cohesion Fund spending in these regions). The dataset does not allow to distinguish between Cohesion objectives either and the only way to do so is to separate NUTS2 according to the prevailing objective in the area.

9.4. Concluding remarks

The 1994-1999 dataset contains data only on expenditures and is characterised by several shortcomings such as: amounts are not uniform across countries and programmes (e.g. official data vs. planned and unofficial expenditure); figures are incomplete (only a subset of objectives and funds were considered); data were manipulated in some cases but we do not know when and how; there is no information on whether amounts are in current vs. constant prices; there is lack of information on cohesion objectives in the dataset; spending typologies used do not reflect topics; ERDF and CF are not separable from the totals etc.

Any attempt to consolidate the ESPON dataset with the NUTS2 data assembled within the current study must accept these limits and be aware that the series cannot be fully comparable. The highlighted limits are likely to reduce the reliability and robustness of the data. However, whether a single series with such limitations would still be acceptable and have some utility is likely to depend on the potential users and on the purposes it is used for. This cannot be fully assessed beforehand.

In the following table, the most important issues emerging from this exploration are summarised. The first two columns are meant to compare, for each issue, the features of the two datasets while the third column provides some suggestions on the possible steps to be taken and on relevant caveats. The issues are listed in order of growing importance, meaning, for instance, that while the NUTS issue is surmountable, despite inevitable limitations, the lack of information on funds or priority themes are difficult or impossible to resolve.

Table 20 – Main issues which constrain/prevent a consolidation between 1994-1999 and 2000-2014 data

1994-1999 ESPON	2000-2014 WP13	Possible approach and caveats
NUTS codes: • 1999 definition used	NUTS codes: • 2003 and 2006 definitions were merged; a 2006 definition is used with some adjustments.	• Convert 1999 NUTS2 into 2006 NUTS2, as it was done to reconcile 2003 and 2006 NUTS in Task 5. • Possible problems linked to changes in codes and boundaries.
Amounts: • expenditure approved by the EC where available or, alternatively, planned initial expenditure or "unofficial" final expenditure (situation	Amounts: • 2000-2006 Expenditure estimated on the basis of payments approved by DG Budget • 2007-2013 Expenditure	• Focus only on expenditure (2000-2014 consolidated data on allocations cannot be not used) • A consolidated dataset would

varies across countries) • No data on commitments/allocations to project selected	collected from MAs	include 3 vectors of expenditure (1994-99, 2000-06, 2007-13) which are not fully comparable: created with different methods and from different sources
Cohesion objectives: • The 1994-1999 database does not allow to distinguish among objectives.	Cohesion objectives: • The consolidated dataset includes information on objectives in the notes.	• Identify a methodology for isolating expenditure in Objective 1/Convergence regions in 1994-1999. • A rough approach could be selecting Obj.1/Convergence NUTS2 according to the prevailing objective in the area.
Themes / typologies of expenditure: • Typologies assigned according to the predominant funds involved and the predominant character of the Structural Fund programme. • Typologies do not reflect topics covered at programming or measure level and, in certain cases, different funding sources are merged into one category.	Themes / typologies of expenditure: • The 20 thematic areas of 2000-2006 and the 86 priority themes of 2007-2013 were aggregated in Task 5.	• 1994-1999 typologies do not reflect topics covered at programming or measure level and are not comparable with 2000-2014 data. Only the total ESPON data rather than its breakdown by typology could be used for a consolidation.
EU funds covered: • ERDF, ESF, EAGGF (European Agricultural Guidance and Guarantee Fund), FIFG (Financial Instrument for Fisheries Guidance), CF • The database does not allow to select ERDF and CF.	EU funds covered: • ERDF and CF	• Identify a methodology to isolate ERDF and CF in the ESPON database, starting from the totals.

ANNEXES

Excel annexes

1-Database before estimation (BE), submitted as a separate Excel file (DB_WP13_July_BE), containing five spreadsheets:

- READ ME: a description of the file and its various sheets, as well as of the variables covered in the database.

- DATA_BE_July: the actual set of data collected and assembled so far.

- Checking NUTS: quality checks carried out on NUTS codes, errors found as well as actions taken.

- Checking Programmes: quality checks by programme, also with respect to the SFC data provided by the Commission.

- Checking % expert calculation: share of resources, in each programme, which were "calculated" by breaking down amounts available at lower level of detail.

2-Database after the estimation (AE), at NUTS 3 Level, submitted as separate Excel file (DB_WP13_NUTS3_AE)

3-Database after the estimation (AE), at NUTS 2 Level, submitted as separate Excel file (DB_WP13_NUTS2_AE)

4-Database at NUTS2 consolidated with the 2000-2006 data (DB_WP13_NUTS2_CS_V1).

Annexed maps

ZIP file with maps on: transport, environment, research and enterprise support (total and per capita expenditure), png and pdf format. See the two files:

- MAPS_Task4

- MAPS_Task5

ZIP file with annexed maps on consolidated data.

Annexed tables

Table 21: Percentage of data, for each programme, calculated by the national experts

Country Cd	CCI	% 2013 All	% 2013 Exp	% 2014 All	% 2014 Exp
BG	2007BG161PO004	62,1	53,0	61,6	57,2
CB	2007CB163PO017	100,0	100,0	100,0	100,0
CB	2007CB163PO018	100,0	100,0	100,0	100,0
CB	2007CB163PO023		100,0		100,0
CB	2007CB163PO057	100,0	100,0	100,0	100,0
CB	2008CB163PO001	0,5	0,5	0,5	0,5
CB	2007CB163PO066	100,0	100,0	100,0	100,0
CB	2007CB163PO001	100,0	100,0	100,0	100,0
CB	2007CB163PO016	100,0	100,0	100,0	100,0
CB	2007CB163PO026	100,0	100,0	100,0	100,0
CB	2007CB163PO028	100,0	100,0	100,0	100,0
CB	2007CB163PO032	100,0	100,0	100,0	100,0
CB	2007CB163PO030	100,0	100,0	100,0	100,0
GR	2007GR161PO001	33,0	40,4	32,7	40,2
GR	2007GR161PO002	83,7	66,8	81,4	71,9
GR	2007GR161PO003	97,6	99,0	97,5	98,6
GR	2007GR161PO004	0,2		0,3	
GR	2007GR161PO005	4,5	6,8	6,7	7,4
GR	2007GR161PO006	18,3	31,9	17,5	36,9
GR	2007GR161PO007	5,6	10,2	5,0	6,1
GR	2007GR161PO008	16,3	19,5	15,9	18,1
GR	2007GR16UPO001	11,7	14,5	11,3	13,3
GR	2007GR16UPO002	6,9	9,5	6,5	8,7
ES	2007ES161PO005	0,1	0,1	0,2	0,1
ES	2007ES161PO006	0,2	0,2	0,2	0,2
ES	2007ES161PO007	0,1	0,4	0,3	0,4
ES	2007ES161PO008	0,2	0,2	0,2	0,2
ES	2007ES161PO009	0,1	0,5	0,3	0,5
ES	2007ES162PO002	0,0	0,0	0,0	0,0
ES	2007ES162PO006	0,2	0,2	0,2	0,2
ES	2007ES162PO007	0,1	0,1	0,2	0,1
ES	2007ES162PO008	0,4	0,5	0,4	0,5
ES	2007ES162PO009	0,2	0,4	0,4	0,4
ES	2007ES162PO010	0,2	0,1	0,2	0,1
ES	2007ES162PO011	0,2	0,3	0,3	0,3
ES	2007ES16UPO001	0,2	0,3	0,2	0,3
ES	2007ES16UPO002	0,7	0,7	0,7	0,8
ES	2007ES16UPO003	0,2	0,3	0,3	0,3
FI	2007FI162PO001	100,0	100,0	100,0	100,0
FI	2007FI162PO002	100,0	100,0	100,0	100,0
FI	2007FI162PO003	100,0	100,0	100,0	100,0
FI	2007FI162PO004	100,0	100,0	100,0	100,0
FI	2007FI162PO005	100,0	100,0	100,0	100,0
FR	2007FR162PO001	100,0	100,0	93,0	96,4
FR	2007FR162PO002	54,9	57,5	56,4	56,9
FR	2007FR162PO004	58,4	55,0	61,7	52,7
FR	2007FR162PO005	69,2	78,0	67,9	66,0
FR	2007FR162PO007	81,9	78,8	82,4	78,6
FR	2007FR162PO008	60,1	69,2	71,5	70,2
FR	2007FR162PO009	71,9	67,8	72,3	71,1
FR	2007FR162PO010	69,3	68,7	69,5	67,0
FR	2007FR162PO011	81,3	87,4	81,2	82,0
FR	2007FR162PO013	87,8	87,5	84,9	88,0
FR	2007FR162PO014	72,0	71,5	83,5	73,2
FR	2007FR162PO016	34,4	28,6	39,6	42,0
FR	2007FR162PO017	88,6	86,2	99,9	86,4
FR	2007FR162PO018	91,7	92,0	91,4	91,0
FR	2007FR162PO019	69,5	64,7	70,2	68,3
FR	2007FR162PO020	83,1	83,7	82,9	83,9
FR	2007FR162PO021	91,7	87,7	91,7	90,3
FR	2007FR162PO022	75,5	75,3	75,0	75,4
FR	2007FR162PO023	85,6	75,7	86,8	76,5
FR	2007FR162PO024	100,0	100,0	99,7	100,0
FR	2007FR162PO025	99,8	100,0	99,6	100,0
HR	2007HR161PO002	73,0	67,5	66,9	68,8
HU	2007HU161PO001	23,7	34,8	20,4	26,6

HU	2007HU161PO002	4,9	3,5	4,7	3,5
HU	2007HU161PO003	4,6	5,2	4,3	1,5
HU	2007HU161PO004	4,0	4,7	3,9	0,9
HU	2007HU161PO005	7,3	5,8	4,3	4,9
HU	2007HU161PO006	3,9	3,6	3,9	0,8
HU	2007HU161PO007	42,1	48,1	38,8	41,0
HU	2007HU161PO008	10,2	5,3	10,1	5,6
HU	2007HU161PO009	3,7	4,1	3,7	3,5
HU	2007HU161PO010	100,0	100,0	100,0	100,0
HU	2007HU161PO011	3,9	4,1	3,8	3,7
HU	2007HU162PO001	12,1	14,1	11,8	13,1
HU	2007HU16UPO001	28,9	100,0	98,1	99,1
NL	2007NL162PO001	3,5	3,5	3,5	3,5
NL	2007NL162PO002	86,9	83,5	82,2	82,5
NL	2007NL162PO003	54,9	56,7	56,6	53,7
NL	2007NL162PO004	100,0	100,0	100,0	100,0
PL	2007PL161PO001	14,3	16,7	14,6	15,0
PL	2007PL161PO002	3,1	2,8	4,4	3,1
PL	2007PL161PO003	15,3	6,3	14,9	8,0
PL	2007PL161PO004	31,5	27,6	29,0	27,5
PL	2007PL161PO005	0,6	0,8	0,5	0,7
PL	2007PL161PO006	0,7	1,0	0,6	0,8
PL	2007PL161PO007	0,3	0,3	0,2	0,3
PL	2007PL161PO008	5,0	6,4	4,9	5,6
PL	2007PL161PO009	6,1	8,1	6,8	7,4
PL	2007PL161PO010	6,7	6,0	7,1	6,1
PL	2007PL161PO011	3,2	3,4	3,2	3,5
PL	2007PL161PO012	2,7	3,3	2,6	2,9
PL	2007PL161PO013	2,2	2,9	2,1	2,5
PL	2007PL161PO014	6,9	9,0	6,4	7,6
PL	2007PL161PO015	15,1	18,5	14,7	16,7
PL	2007PL161PO016	20,6	24,5	18,6	22,9
PL	2007PL161PO017	17,3	15,3	16,2	14,0
PL	2007PL161PO018	3,9	4,8	3,7	4,2
PL	2007PL161PO019	7,1	10,2	7,5	8,9
PL	2007PL161PO020	3,8	5,3	3,6	4,4
PT	2007PT161PO003	1,1	0,4	1,1	0,6
RO	2007RO161PO001	2,0	2,0	2,0	2,0
RO	2007RO161PO002	7,0	7,0	7,0	7,0
RO	2007RO161PO003	69,0	69,0	69,0	69,0
RO	2007RO161PO004	51,0	51,0	51,0	51,0
RO	2007RO161PO005	66,0	66,0	66,0	66,0
SE	2007SE162PO001		100,0		100,0
SE	2007SE162PO002		100,0		100,0
SE	2007SE162PO003		100,0		100,0
SE	2007SE162PO004		100,0		100,0
SE	2007SE162PO005		100,0		100,0
SE	2007SE162PO006		100,0		100,0
SE	2007SE162PO007		100,0		100,0
SE	2007SE162PO008		100,0		100,0
SK	2007SK161PO001	70,7	70,0	72,8	70,7
SK	2007SK161PO002	5,7	3,8	5,7	2,8
SK	2007SK161PO004	11,7	11,0	1,5	1,5
SK	2007SK161PO005	3,8	2,9	3,9	2,6
SK	2007SK161PO006	9,5	13,4	1,0	1,8
SK	2007SK16UPO001	7,5	5,4	3,4	4,3

Note: the table includes only the programmes that required calculations to break down data from lower to higher level of detail.

Source: Core team and national experts' calculations

Table 22: Difference (% points) between WP13 and SFC allocations in 2013 by priority theme

Priority	AT	BE	BG	CB	CY	CZ	DE	DK	EE	ES	FI	FR	GR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	UK
01	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	-1	0	0	-1	0	0	0	0	0	0	0	0	0
02	0	0	0	0	0	0	0	0	0	0	0	0	0	-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
04	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-2	0	0
05	0	0	0	0	0	0	0	0	0	-1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	-2	0	1	0	0
07	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	1	0	0	1	0	0	0	1	0	0
08	0	0	0	0	2	0	0	0	0	-1	0	0	1	-2	0	0	0	0	0	2	0	0	0	0	2	0	-2	-1	-1
09	0	-1	0	0	0	0	0	0	0	0	-3	0	1	-3	0	0	1	0	0	0	0	0	0	0	0	0	5	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-1
11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
14	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	1	0	0	0	0	2	0	7	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	-6	0	0	0	0	0	2	0	0	1	0	0	0	-12	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	-1	-3	0	0	0	0	0	0	0	0	0	0	1	0	0	-1	0	0	0	0	0	0	2	-2	0
21	0	0	0	0	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0	-1	0	0	-1	0	0	0	2	0	0
22	0	0	0	0	0	-3	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	1	0	0	3	0
23	0	0	0	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	1	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	1	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0
28	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0
44	0	0	0	0	-4	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	0
45	0	0	9	0	0	0	0	0	0	0	0	0	-1	1	0	0	0	0	0	-1	0	0	0	0	-4	0	-2	0	0
46	0	0	-9	0	-1	0	0	0	0	-1	0	0	-1	17	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	-2	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1

Row	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	-1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1
57	0	0	0	0	0	0	0	0	0	0	0	0	0	-5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	0	-1	0	0	4	0	0	0	0	-2	0	0	0	0	0	0	1	0	0	-2	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0
77	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0
79	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	0	1	0	0	0	0	2	-2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
86	0	1	-1	0	0	0	0	-2	0	3	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
na	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: WP13 Database

List of national experts and countries covered

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Data collection in Italy and Austria was carried out respectively by Ismeri Europa and Wiiw.

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